

Chapter 4

ASEAN Approaches to Environmental Protection and Sustainable Development: Cooperating across Borders, Sectors, and Pillars of Regional Community

Simon S.C. Tay, Chen Chen Lee, and Lau Xin Yi

4.1. Introduction: Globalisation, Sustainable Development, and ASEAN

Present trends in global cooperation can seem contradictory. On one hand, the international community has sought to coordinate in order to deal with the global financial crisis – especially through the G20, and restart growth. The United Nations convened the global community to reach agreement to guide future growth strategies towards broad and comprehensive Sustainable Development Goals (SDGs). In the Paris Agreement, reached at the end of 2015, governments across the world committed to address the global threat of climate change and shift patterns of production and consumption towards sustainable development. On the other hand, recent trends of populist, anti-globalisation sentiments in the western, ‘developed’ world are also evident as exemplified in the outcomes of the UK’s referendum on the EU and the US presidential election. These megatrends will affect ASEAN, even as its ten diverse member nations have moved forward to inaugurate the ASEAN Community and increase regional integration.

This chapter will consider the ways in which the ASEAN Community is dealing with issues relating to sustainable development, particularly with regard to environmentally-related social concerns that are linked to economic integration. The global cooperation agreed upon regarding Climate Change and the SDGs, set an important context. However, this chapter will focus more on ASEAN’s on-going agenda on sustainable development and, in particular, for the environment.

We begin with a brief review of ASEAN’s agenda and note that a broad environmental agenda has been agreed upon, with considerable efforts identified for action in diverse areas. This established environmental agenda within ASEAN is treated as an element under the socio-cultural pillar, rather than the economic or political-security pillars that together make up the ASEAN Community. The effect of this is that the environment agenda may have limited cognition within the ASEAN Economic Community (AEC) beyond specific initiatives in select sectors such as energy and food, agriculture and forestry (e.g. food security).

This is especially noticeable when we consider perhaps the most notable item on ASEAN’s environmental agenda: the transboundary regional haze air pollution that

results from land and forest fires, most often coming from the agro-forestry sector. The impact from this recurring regional tragedy goes beyond the public health concerns caused, or even the emitted carbon's impact on global climate change. The fires and haze are human-made disasters that reflect the underlying and unsustainable systems of production in this sector, and the latter is very much an economic issue. Regional and global value chains will be briefly analysed to underscore concerns of small producers and local communities, as well as the emerging responsibilities of consumers and the financial community.

Addressing the issues of the haze requires not only governments to have stricter law enforcement and increased capacity to prevent and deal with fires. There is also the challenge of working across borders and pillars/sectors in ASEAN, across sectors of the economy and the value chains of the businesses involved. Institutionally for ASEAN, we argue the issue also requires new approaches to work across the different pillars of the ASEAN community, to see the issue as cross-cutting, and one that implicates not only socio-cultural and environmental issues, but the economic integration policies of the AEC. In this way, the chapter looks closely at the fires and haze issue to offer an illustration of how ASEAN can move ahead with economic integration in tandem with addressing environmental and sustainability concerns.

The chapter concludes by considering the need to develop clearer and more complete linkages between the AEC and other pillars of the ASEAN Community. In this, we consider the need to link these issues to the wider global agenda and also to initiate new processes within ASEAN so that the cross-cutting issues can be systematically and consistently considered at a high level. Such efforts will be essential to move ahead with deeper regional integration given populist sentiments and increased scrutiny of the benefits and costs of growth in social and environmental terms. ASEAN has promised a "people-centered" community and the AEC cannot be limited to advancing economic growth in the narrowest sense of that term.

This links to global trends in climate change responses and the SDGs. We have come to recognise that economic growth and more openness must deliver benefits and lessen harms to the environment and to society, and there is recognition now that systems of production and economic patterns must shift accordingly, both globally and within ASEAN.

4.2. Sustainable Development and the Environment: The Current ASEAN Agenda

The World Commission on Environment and Development defined sustainable development as "development which meets the needs of current generations without

compromising the ability of future generations to meet their own needs”.¹ While the concept of sustainable development can be interpreted in many different ways, at its core is an approach to development that looks to balance different and competing needs against an awareness of the environmental, social and economic limitations we face as a society. In this chapter, while recognising the breadth of the sustainable development concept, we will – given the limits of length as well as the coverage of other chapters in this publication, emphasise more on environmental concerns.

The United Nations 2030 Agenda for Sustainable Development clearly states that “sustained, inclusive and sustainable economic growth is essential for prosperity. This will only be possible if wealth is shared and income inequality is addressed”.² Sustainable development is not just about the environment. It is also about ensuring a strong, healthy and just society that meets the diverse needs of all people in existing and future communities.

Within ASEAN, there is a growing realisation that sustainable development should be a central tenet of ASEAN’s community integration efforts. The ASEAN Community Vision 2025 recognises the complementarity of the UN 2030 Agenda for Sustainable Development with ASEAN’s community building efforts to uplift the standards of living of her peoples.³

If well managed, the AEC could boost the region’s economies by 7.1% by 2025, generate 14 million additional jobs, and increase the amount of decent jobs and workers’ skills.⁴ However, gains from the establishment of the AEC may not automatically be evenly distributed among all ASEAN countries or among the people.⁵ There can also be social and environmental impacts.

¹ Also known as the Brundtland Commission. First introduced in 1987, sustainable development has achieved consensus among the international community, as seen in the UN SDGs agreed by the global community. There are also arguments that Sustainable Development is now an accepted tenet of customary international law.

² Transforming our world: the 2030 Agenda for Sustainable Development, Available: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, Retrieved: 1 April 2017

³ The new AEC Blueprint 2025 has a distinct focus on people, which was not the case in its predecessor, the AEC Blueprint 2015. More specifically, the new AEC Blueprint calls for “a resilient, inclusive, people-oriented and people-centred community that engenders equitable development and inclusive growth; a community with enhanced micro, small and medium enterprise development policies and cooperation to narrow the development gaps; and a community with effective business and stakeholder engagement, subregional development cooperation and projects, and greater economic opportunities that support poverty eradication.”

⁴ Uramoto, Yoshiteru (2014), Can the Asean Economic Community deliver the jobs for the people? The Straits Times, 3 September 2014, Available: <http://www.straitstimes.com/opinion/can-the-asean-economic-community-deliver-the-jobs-for-the-people>, Retrieved: 18 March 2017

⁵ This is especially so for micro, small and medium enterprises, small-holder farmers, labourers working in the informal sector, undocumented or irregular migrant workers, and other vulnerable groups. In order to realize a people-oriented, people-centred ASEAN community, ASEAN nations have to develop a strategy for economic growth that is socially, environmentally and economically sustainable. Questions of income distribution, impact in terms of the inclusiveness of growth and employment, regional economic integration, structural and industrial policy and strategies for economic development in resource-rich countries are important and should be factored into the context of economic policy.

The ASEAN region has a rich endowment of natural resources that are significant not only for the countries of the region, but globally in terms of biodiversity and climate change. Yet the ASEAN environment is continually being pressured by demands of population and economic growth. While it is good that the region's growth has consistently outperformed the global average, there are concerns that there has been a corresponding stress on natural resources such as clean air, water and land. Continuing growth and urbanisation in megacities such as Jakarta, Bangkok and Manila, stresses environmental resources both within countries and across borders.⁶ We can see that the region is facing large and complex challenges in keeping environmental sustainability and economic development in balance.

Cooperation on environmental issues in ASEAN dates back to 1977. Today ASEAN aims to “work towards achieving sustainable development as well as promoting a clean and green environment by protecting the natural resource base for economic and social development including the sustainable management and conservation of soil, water, mineral, energy, biodiversity, forest, coastal and marine resources as well as the improvement in water and air quality”.⁷ This broad agenda, moreover, is not only for the ASEAN region but is pursued as part of what it sees as “global efforts towards addressing global environmental challenges, including climate change and the ozone layer protection, as well as developing and adapting environmentally-sound technology for development needs and environmental sustainability.”⁸ The new ASEAN Socio-Cultural Community Blueprint 2025 has a strong emphasis on promoting and ensuring one layer protection, as well as developing and adapting environmentally-sound technology at all times.⁹ The term “sustainable” was a recurring theme throughout the 2025 Blueprint, from environmental protection, social development, consumption and production, to responding to natural disasters.

Within this, ASEAN environmental cooperation focuses on ten priority areas, which range from promoting environmentally friendly technology and harmonising policies and databases, to promoting the sustainability levels of cities and urban areas and protecting the sustainability of freshwater sources.¹⁰ This creates a very broad and

⁶ In terms of biodiversity, the region is renowned for a rich heritage, largely from three countries, – Indonesia, Malaysia and the Philippines – that represent some 80% of global biological diversity. Forest cover in ASEAN, while under pressure, remains at about 45% and this is estimated to provide a natural habitat for up to 40 % of all species on Earth. Population density, at some 130 people per square kilometre, is one of the highest in the world. See <http://environment.asean.org/about-us-2>

⁷ Overview of ASEAN Cooperation on Environment, Association of Southeast Asian Nations, <http://environment.asean.org/about-us-2/>

⁸ Ibid

⁹ See the ASEAN Socio-Cultural Community Blueprint 2025. <http://asean.org/storage/2016/01/ASCC-Blueprint-2025.pdf>

¹⁰ As reflected in the Blueprint for the ASEAN Socio-Cultural Community (ASCC Blueprint) 2009-2015. See <http://environment.asean.org/about-us-2/>

indeed ambitious agenda that will in many cases go beyond the exclusive remit of the environmental ministers.

Of particular prominence is ASEAN's effort to address transboundary haze pollution arising from land and forest fires in the last two decades and these efforts will be analysed in detail in the next section.

Institutionally, amongst the three pillars of the ASEAN community, environmental concerns are assigned under the socio-cultural community pillar, rather than the economic, or political-security pillars. Take the transboundary haze pollution for instance. Despite the clear linkages to economics, it remains an issue under the ambit of the Environment Ministers, and discussed only under the socio-cultural pillar. Some have questioned the viability of such an approach. In the minds of many people today, sustainability and environmental issues are quite fundamentally economic issues.

The Paris Agreement on climate change is not "merely" environmental; there are many implications for a whole range of policies from energy and economic planning to city planning and infrastructure. Similarly, we can see that environmental issues in ASEAN will go beyond the direct remit of the environmental ministers. While the environmental ministers and agencies should remain involved, there is much need to bring in other ministries and actors from other sectors if these challenges are to be addressed fully and more fundamentally. In the following section, we offer an analysis of the haze issue that will aim to illustrate this.

4.3. Seeing the Haze as a Sustainable Development Issue

Since the 1997-98 haze episode, ASEAN has sought to address the fires and resulting haze from forest and land fires in Indonesia. The recurring phenomenon is traced back to slash and burn practices and the clearing of land for plantations such as pulp wood, palm oil, and rubber. Regional initiatives have been created to promote regional collaboration, of which the most significant effort is the ASEAN Agreement on Transboundary Haze Pollution (AATHP), which seeks to prevent, monitor, and mitigate land and forest fires to control transboundary haze pollution through concerted national efforts, regional and international cooperation. It has been hailed as the world's first regional arrangement that binds a group of states to tackle transboundary pollution from land and forest fires, containing measures such as monitoring and assessment, prevention, preparedness, national and joint emergency response, and technical cooperation and scientific research.¹¹

¹¹ Besides the treaty, other ancillary agreements have been reached on the haze. For instance, the ASEAN Coordinating Centre for Transboundary Haze Pollution Control (ACC) was created to facilitate co-operation and co-ordination among the Parties in managing the impact of land and/or forest fires, in particular haze pollution arising from such fires. Numerous other regional initiatives were established following the creation of the AATHP, the more notable ones being the Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution; the ASEAN Peatland Management Strategy, the ASEAN Transboundary Haze Pollution Control Fund; the ASEAN Task Force on Peatlands; and the ASEAN Guidelines on Peatland Fire Management.

Some question the effectiveness of this treaty, concluded in 2003, as Indonesia – which is the main source of the fires causing the haze problem, became the last ASEAN country to ratify the haze agreement in October 2014. However, subsequently in August 2016, ASEAN ministers responsible for the environment adopted the Roadmap on ASEAN Cooperation Towards Transboundary Haze Control Pollution with Means of Implementation, with the goal of achieving a transboundary haze-free ASEAN by 2020. The roadmap is focused on “intensifying collective actions to prevent and control forest and/or land fires”. Under the roadmap, the principles of the AATHP will be translated into concrete and collective actions.¹² Specifically the roadmap contains eight strategic components that are inter-related and mutually reinforcing. While the roadmap looks comprehensive and well-thought out on paper, its implementation may face challenges on meeting the timeline and on the resources, capabilities and knowledge required of the implementing agencies, particularly at the local and provincial level. Experts have also pointed out that a totally haze-free ASEAN is impossible to achieve, for reasons related to traditional, religious and cultural practices.¹³

ASEAN efforts center on the environmental ministers and the sub-group of countries¹⁴ affected by the haze problem and this has seen some progress for example, with the ASEAN Agreement on Transboundary Haze Pollution. Yet despite this, results in recent years however have been mixed, with an especially bad haze period in the last quarter of 2015 in the southern ASEAN region.

At the height of the haze crisis in late 2015, Palangkaraya, the capital of Central Kalimantan and one of the most affected regions, saw its Pollutant Standards Index (PSI) soar above 2,000.¹⁵ Some 2.6 million hectares of forest and farmland in Indonesia – or four and half times the size of Bali – were burned from June to October.¹⁶ Six Indonesian provinces declared a state of emergency: Riau, Jambi, South Sumatra, West Kalimantan, Central Kalimantan and South Kalimantan. In Riau’s capital, Pekanbaru, thousands of residents fled to the nearby cities of Medan and Padang. Schools in parts of Indonesia, several states of Malaysia as well as in Singapore, were forced to close. Many flights were

¹² Roadmap on ASEAN cooperation towards transboundary haze pollution control with means of implementation, Association of Southeast Asian Nations, http://environment.asean.org/wp-content/uploads/2016/11/Roadmap-ASEAN-Haze-Free_adoptedbyCOP12.pdf

¹³ Letchumanan, Raman (2015) Road Map for a Transboundary Haze-Free ASEAN by 2020: Time to Implement Agreement, RSIS Commentary, No. 237 – 9 November 2015, Available: <https://www.rsis.edu.sg/wp-content/uploads/2015/11/CO15237.pdf>

¹⁴ The Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution comprises of ministers responsible for the environment from the following countries: Brunei Darussalam, Indonesia, Malaysia, Singapore, and Thailand.

¹⁵ Heng, Eve Sonary (2015) Haze forces 4,778 schools to close today; 2,696,110 students affected, BorneoPost Online, 22 October 2015, Available: <http://www.theborneopost.com/2015/10/22/haze-forces-4778-schools-to-close-today-2696110-students-affected/> Retrieved: 14 January 2016

¹⁶ The World Bank (2015) Reforming amid uncertainty, Indonesia Economic Quarterly, December 2015, Available: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/12/844171450085661051/IEQ-DEC-2015-ENG.pdf> Retrieved: 14 January 2016

either delayed or cancelled. With more than 43 million people exposed to smoke from the fires, deaths climbed to 19 in Indonesia and more than half a million cases of acute respiratory tract infections were reported.¹⁷

What is driving ASEAN efforts? Is the haze issue being framed as an environmental issue or as a concern about sustainable development – which is broader and encompasses both human and economic impacts?

The scale of the fires and haze and the long history of this recurring environmental disaster lend themselves to many different analyses. Some would emphasise the human health concerns and others the climate change impacts from the release of CO₂ – which are globally significant, or the threat to nature parks and endangered species.

While recognising the value of these perspectives, in our analysis, there is an emerging shift towards the second, and broader view, and this is showing potential to drive efforts forward more effectively. The human impact of the fires and haze has been more clearly recognised. We examine the haze issue to offer the argument that environmental issues have economic and human dimensions, and that to address them at their root, there must be cross-cutting efforts to work and foster cooperation not only across borders but also across different sectors of the economy and society – not only governments but also corporations and non-governmental actors. Moreover, looking at the value chain, the private sector actors are not only the companies in the agro-forestry sector but their customers — whether retail or manufacturers who process and use these resources — and the financial institutions that fund this sector and the companies. Consumers also have an increasingly important role to play.

In addition to the severe environmental and human harm, the economic costs are also striking. The Jokowi administration estimated that the 2015 haze episode cost Indonesia as much as US\$33.5 billion (475 trillion rupiah).¹⁸ Similarly, the World Bank placed the cost to Indonesia at about US\$16.1 billion, or 1.9 % of predicted Gross Domestic Product (GDP) that year.¹⁹ The economic cost to Singapore is about US\$515.3 million (S\$700 million).²⁰ In May 2016, the ASEAN Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution announced a study to assess the economic, health and

¹⁷ Jakarta Globe (2015) Minister: Haze death toll climbing, The Jakarta Globe, 28 October 2015, Available: <http://jakartaglobe.beritasatu.com/news/haze-death-toll-reaches-19/> Retrieved: 16 January 2016

¹⁸ Chan, Francis (2015) \$47b? Indonesia counts costs of haze, The Straits Times, 11 October 2015, Available: <http://www.straitstimes.com/asia/47b-indonesia-counts-costs-of-haze> Retrieved: 14 January 2016

¹⁹ The World Bank (2015) Reforming amid uncertainty, Indonesia Economic Quarterly, December 2015, Available: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/12/844171450085661051/IEQ-DEC-2015-ENG.pdf> Retrieved: 14 January 2016

²⁰ Barratt, Olly (2016) Haze episode cost Singapore estimated S\$700m last year: Masagos, Channel NewsAsia, 15 March 2016, Available: <http://www.channelnewsasia.com/news/singapore/haze-episode-cost/2605406.html> Retrieved: 17 March 2016

social impact of the 2015 haze on Southeast Asia.²¹ At the time of writing, the study is being undertaken and overseen by the Committee under the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution.

While the human and economic cost is of concern, we must also consider the significance of the issue with specific regard to two large and significant sectors of the economy: the pulp and paper industry and the palm oil sector. According to Indonesia's Central Statistics Agency (BPS), agriculture, forestry and fisheries contribute approximately 14.11% of the country's GDP in 2016.²² As of August 2016, an estimated 31.9% of the workforce are employed in agriculture, farming, forestry, hunting and fishing, according to BPS.²³ In particular, the palm oil industry is a major contributor to rural income in Indonesia. Oil palm development has been associated with reducing rural poverty and improving infrastructure. The industry also directly and indirectly provides jobs for more than 1.7 million people in Indonesia and more than 0.8 million people in Malaysia.²⁴

The haze is closely associated with certain companies in these two industries which have been practicing unsustainable production, often contrary to the laws within the places where they operate. Yet there are many companies, growers and producers, who are taking precautions against fire and shifting their practices so as to be fully compliant, fire-free, environmentally-friendly and sustainable. As such, approaches to deal with the haze cannot be blunt instruments but ones that can address the variety of actors in a supply chain that cuts across borders in trade, investment and also the financing of the sector.

This implicates not only the growers in the sector but those that buy from them and aggregate supply for scale in production and manufacturing efficiency. Similarly, financial institutions can be part of the problem if they do not investigate the environmental conditions of the businesses they fund. There is an increasing recognition that if the problem is to be addressed, the approach must be holistic and take into account the economic linkages in the production and consumption chains, and not just the environmental harms and "externalities".

In this context, this chapter will consider actions by (1) the Indonesian and other governments; (2) small-scale farmers and large companies; (3) non-governmental

²¹ Study to be conducted to assess impact of 2015's haze in ASEAN, Channel News Asia, 4 May 2016, Available: <http://www.channelnewsasia.com/news/singapore/study-to-be-conducted-to/2754908.html>, Retrieved: 10 March 2017

²² <http://aplikasi2.pertanian.go.id/pdb/rekappdbkontri.php>

²³ <https://www.bps.go.id/linkTabelStatis/view/id/970>

²⁴ <http://www.sustainablepalmoil.org/impacts/economic/>

organizations and consumers; and (4) financial institutions. While only brief notes can be offered, we hope this treatment will allow the reader to better identify the linkages between these different actors and, moreover, the need to link from environmental concerns to economic actors, across borders, and across sectors.

1) The Indonesian and Other Governments

The causes of transboundary haze pollution are complex and multi-dimensional. As such, governments play a critical role in setting the direction and parameters for other stakeholders to play their part. Of top priority is the institution and enforcement of laws and regulations pertaining to unsustainable practices including slash-and-burn; but governments are also looking towards the longer term by emphasising prevention measures and the importance of sustainability in the plantation sector. The loss of livelihood, particularly of the small-scale growers and their communities, should be addressed as part of the solution. Alternative methods of production and, in some cases, alternative livelihoods must therefore be part of the approach.

The fires and haze, first and foremost, impact Indonesia, its people, and its economy. In this context, we recognise that the current government under President Joko Widodo has significantly ramped up Indonesian efforts against the fires. Increased law enforcement has seen the Indonesian police arresting more than double the number of individuals in forest fire cases in 2016 as compared to the year before. Public education on alternatives to using fire for land clearing and verification that the arrested individuals understood the broader concerns, have been conducted.²⁵

At a time when the palm oil industry is already suffering from a falling commodity price, President Jokowi also announced plans to impose a moratorium on oil palm plantations – a move that will halt further land clearing, and in turn, the use of slash-and-burn practices. However, while benefiting the environment, this approach risks economic repercussions. For instance, when Indonesia stopped issuing permits for oil palm plantation on peatlands in May 2011, the country sacrificed approximately \$10 billion in potential income from the sector.²⁶ Therefore, without viable alternatives, the moratorium on oil palm plantations will exacerbate the economic impact on Indonesia, the world's largest producer of this edible oil.

²⁵ Jensen, Fergus and B.C. Munthe (2016) Indonesia fire arrests jump amid efforts to stop haze, TODAYOnline, 25 August 2016, Available: <http://www.todayonline.com/world/indonesia-fire-arrests-jump-amid-efforts-stop-haze> Retrieved: 12 April 2017

²⁶ Bisara, Dion & Listiyarini, Tri (2016) Indonesia to issue a moratorium on new palm oil concessions, Jakarta Globe, 15 April 2016, Available: <http://jakartaglobe.id/business/indonesia-issue-moratorium-new-palm-oil-concessions/> Retrieved: 12 April 2017

Another notable effort by the Jokowi administration was to create the Peatland Restoration Agency (BRG) in January 2016, headed by former environmental activist Nazir Foad and now a ministerial-ranked appointee. The BRG is tasked with restoring a total of 2 million ha of peatlands by 2020 as peatlands have been a major source of the fires and haze.²⁷ Just a year in existence, the BRG has already begun on the ground efforts across a number of provinces, serving to catalyse and bring together different agencies and also the non-governmental organizations and community groups in Indonesia.

The role of other governments has been supplementary but crucial. Singapore has stepped up efforts to address haze from its own jurisdiction for instance through the Transboundary Haze Pollution Act which came into effect on 25 September 2014. The Act attributes liability to entities that conduct or condone an act – originating from within or outside Singapore – which generates or contributes to haze pollution in Singapore. In 2015, the Singapore Government invoked its Transboundary Haze Pollution Act for the first time to question and to investigate six firms. Focus was placed on major agribusinesses and their culpability in causing the fires either within their own plantations or through their connection with “rogue” intermediaries and small to medium-sized companies in their supply chains.

Malaysia does not have similar legislation as Singapore’s Transboundary Haze Pollution Act and has instead expressed preference for diplomacy considering the limitation of legal enforcement.²⁸ As one of the largest producers and exporters of palm oil and related products, the Malaysian government is also promoting the sustainability of the palm oil plantation sector by implementing the Malaysian Sustainable Palm Oil (MSPO) certification scheme. As of January 2017, 221,548 ha of oil palm planted area have been certified and this figure is expected to increase as the MSPO certification becomes compulsory by December 2019.²⁹

At the regional level, the ASEAN Agreement on Transboundary Haze Pollution is expected to strengthen Indonesia’s regulations and policies pertaining to forest and land fires and enable the Indonesian government to receive international support.³⁰ However,

²⁷ Fogarty, David (2016) Taking the hot seat in war on haze, The Straits Times, 18 April 2016, Available: <http://www.straitstimes.com/asia/se-asia/taking-the-hot-seat-in-war-on-haze> Retrieved: 12 April 2017

²⁸ Soh, Andrea (2017) Malaysia prefers to use diplomacy to fight haze-causing fires, The Business Times, 7 April 2017, Available: <http://www.businesstimes.com.sg/government-economy/malaysia-prefers-to-use-diplomacy-to-fight-haze-causing-fires> Retrieved: 12 April 2017

²⁹ Nik Anis, Mazwin (2017) Malaysia opposes EU resolution on palm oil, The Star Online, 16 March 2017, Available: <http://www.thestar.com.my/news/nation/2017/03/16/msia-opposes-eu-resolution-on-palm-oil-mah-we-will-collaborate-with-indonesia-to-present-our-case/> Retrieved: 12 April 2017

³⁰ Soeriaatmadja, Wahyudi (2014) Indonesia’s parliament agrees to ratify ASEAN haze pact, The Straits Times, 16 September 2014, Available: <http://www.straitstimes.com/asia/se-asia/indonesias-parliament-agrees-to-ratify-asean-haze-pact> Retrieved: 12 April 2017

strong political will and commitment from each ASEAN Member State will be needed to complement and enhance the effectiveness of the Agreement to tackle the long-standing transboundary haze pollution. At the same time, the support and involvement of countries outside ASEAN will be equally important. Western donors such as Norway, the US, the European Union and Britain have committed around US\$135 million (S\$183 million) in funding pledges to the BRG.³¹ In addition, the BRG has signed a memorandum with Kyoto University, Hokkaido University and the Research Institute for Humanity and Nature to conduct joint studies in peatland restoration.³² More of such efforts will be needed to scale up and accelerate progress to address the root causes of the haze.

In some cases, governments in major consumer markets may influence the supply chain through stringent public procurement policies or regulations that demand sustainable production practices. On 4 April 2017, Members of the European Parliament (MEPs) called on the EU to introduce sustainability criteria for palm oil and its related products entering the EU market. They further urged the Commission to phase out the use of vegetable oils that are responsible for deforestation, including palm oil, as a component of biofuels, ideally by 2020, among others.³³ This resolution is likely to have a sizeable negative impact for palm oil producing countries such as Indonesia, Malaysia and Thailand. After all, the EU stands as the largest market for Malaysian palm oil and palm oil-based products, with exports in 2016 valued at about RM 10 billion (US\$2.25 billion).³⁴ The Chairman's Statement for the 30th ASEAN Summit urged the European Union to recognise the certification of the Sustainable Palm Oil Schemes in the countries concerned which is a manifestation of our commitment to the UN SDGs.

2) From Small Scale Farmers to Large Companies

The traditional supply chain model typically consists of stakeholders who are directly involved in production: plantations, millers, refiners, processors, manufacturers and retailers. On the upstream side, some companies – in the palm oil sector and pulp and paper sector – have been allocated concession lands to establish plantations and therefore can exercise close oversight of the operations on the ground. These include

³¹ Fogarty, David (2016) Taking the hot seat in war on haze, *The Straits Times*, 18 April 2016, Available: <http://www.straitstimes.com/asia/se-asia/taking-the-hot-seat-in-war-on-haze> Retrieved: 12 April 2017

³² Suzuki, Jun (2016) Indonesia teams up with Japan experts to prevent peatland wildfires, *Nikkei Asian Review*, 31 August 2016, Available: <http://asia.nikkei.com/print/article/198532> Retrieved: 12 April 2017

³³ Press release, MEPs call for clampdown on imports of unsustainable palm oil and use in biofuel, *European Parliament*, 4 April 2017, Available: <http://www.europarl.europa.eu/news/en/news-room/20170329IPR69057/meps-call-for-clampdown-on-imports-of-unsustainable-palm-oil-and-use-in-biofuel> Retrieved: 22 May 2017

³⁴ Channels NewsAsia (2017) Malaysia strongly opposes proposed EU resolution on palm oil, *Channel NewsAsia*, 15 March 2017, Available: <http://www.channelnewsasia.com/news/asiapacific/malaysia-strongly-opposes-proposed-eu-resolution-on-palm-oil-8761786> Retrieved: 22 May 2017

banning deforestation, prohibiting the use of slash-and-burn practices and achieving water and energy efficiency.

At the same time, smallholders are a critical player to the supply chain, particularly in the palm oil industry. More than 3 million smallholders and small-scale farmers depend on palm oil for a living and they collectively contribute around 40% of total global palm oil production.³⁵ Smallholder farmers can be divided into two basic categories namely independent smallholder farmers and smallholder partnership farmers. The latter varies between different levels of collective organisation from one-to-one partnerships with oil palm companies (also known as the plasma scheme) to farmer cooperatives.³⁶

Studies have shown that independent smallholders often achieve lower yields as compared to plasma farmers while facing high exposure to a wide range of legal, supply and market risks for instance.³⁷ This should come as no surprise when one considers their many constraints, particularly for independent smallholders. Many of them currently do not have the means or financial capacity to switch to land-clearing without fire. Further, they also have cost concerns when it comes to increasing their productivity. The seeds and fertilisers they need are expensive, relative to their limited income, and these small-scale farmers often have little or no access to capital and loans. Ensuring that these farmers have access to seeds and fertilisers and the knowledge to apply them correctly are crucial to bring about better yields and stable income while minimising environmental problems such as the depletion of soil quality.

Examples of concrete initiatives in Indonesia to address these concerns are as follows. First, under Indonesia's largest farm support programme, the subsidised fertiliser scheme enables small farmers with two hectares or less of land to purchase government-supported fertiliser at below-market prices. However, misallocation issues – as in the case where these fertilisers are sold to plantations instead of small farmers - must be addressed and assistance needs to be scaled up to achieve significant progress.³⁸ Second, as an alternative “no-burn” method to land clearing, researchers from the provincial University of Riau (Unri) taught farmers to convert their vegetative debris and wood waste into fertiliser for their crops. They further sold the thicker pieces of wood

³⁵ According to the Roundtable on Sustainable Palm Oil (RSPO), smallholders are farmers who grow oil palm besides other subsistence crops. The majority of labour comes from the family, the farm generates the principal source of income, and the planted oil palm area is less than 50 hectares. See more: <https://www.rspo.org/smallholders/rspo-smallholders-definition>

³⁶ Raina, Leela (2015) Opportunities for increasing productivity & profitability of oil palm smallholder farmers in Central Kalimantan, Climate Policy Initiative, April 2015, Available: <https://climatepolicyinitiative.org/publication/oil-palm-smallholder-farmers-study/> Retrieved: 12 April 2017

³⁷ Ibid

³⁸ Fabi, Randy and Munthe, Bernadette Christina (2016) Subsidy sham: Fertilisers reach Indonesia plantations, not small farmers, Reuters, 14 February 2016, Available: <http://www.reuters.com/article/us-indonesia-fertilizers-idUSKCN0VN127> Retrieved: 22 May 2017

to furniture-makers and wove oil palm leaf stalks into baskets and other handicrafts.³⁹ While these communities must be protected from the fires and haze, they also need to find ways to continue to work for their livelihoods. These are important economic and social dimensions to be resolved in tandem with the need for better environmental protection.

In this respect, companies in the upstream operations are often looked upon to drive sustainability in the supply chain, thereby influencing their subsidiaries and third-party suppliers. A growing trend can be observed among major palm oil and pulp and paper companies that have made public commitments including the No Deforestation, No Peat and No Exploitation (NDPE) policies. Still, the complex supply chain and frequent environmental and social controversies that plague the industry mean that companies must go beyond setting sustainability policies. In fact, some major plantation companies have gone further by establishing traceability to mills and to plantations and promoting greater corporate disclosure in their sourcing of raw materials and the remedies they have undertaken to address grievances on the ground.

More importantly, there is growing recognition that companies cannot achieve progress on their own. Inclusive collaboration across different stakeholders and across different activities in the same landscape is critical to establish sustainable supply chains. A case in point is the Fire-Free Village Programme launched by pulp and paper giant Asia Pacific Resources International Holdings Ltd (APRIL) Group in July 2015 that aims to tackle the root causes of fire through close engagement at the village level. The programme involves partnership with local non-governmental organisations (NGOs) in Indonesia to identify and support alternatives to fire, empower community fire crews and increase awareness of the environmental and economic consequences of fire and haze.⁴⁰ Since 2016, a Fire-Free Alliance has been formed comprising of forestry and agriculture companies, NGOs and other stakeholders who will adopt similar models to prevent fires in the various concession areas where they operate. Not only do the small holders protect themselves and their crops but also their communities and families from the ill-effects of fires and haze. In a number of these schemes, monetary incentives are also offered to villages who succeed in remaining fire-free for a period; the results are monitored and funds are given by the corporations to support a project for community improvement.

These developments by companies and other stakeholders signal an important shift beyond sustainable methods of production to the protection of ecosystem services

³⁹ Arshad, Arlina (2017) Indonesia aims to bury slash-and-burn, The Straits Times, 14 January 2017, [Online], Available: <http://www.straitstimes.com/asia/se-asia/indonesia-aims-to-bury-slash-and-burn> Retrieved: 22 May 2017

⁴⁰ Press release, APRIL Group launches fire free village programme, APRIL Group, 28 July 2015, Available: http://www.aprilasia.com/images/pdf_files/20150728-FireFreeVilagePressReleaseFINAL.pdf Retrieved: 13 April 2017

and the conservation of natural habitats and resources. A healthy natural ecosystem ultimately ensures the survivability and sustainability of both the companies and the communities that co-exist in the landscape and should be prioritised above narrow economic interests. At the same time, these initiatives must align with and complement the government's long-term development agenda for maximum effectiveness.

On the other hand, companies involved in downstream operations, particularly those in distribution and retailing have an important role to play. These companies tend to be more visible to consumers and thus face a higher risk of reputational damage should they be linked to unsustainable practices such as deforestation, fires and haze. One possible strategy is the adoption of procurement policies that require suppliers to meet specific environmental and social standards. Regular monitoring and auditing of the supply chain can help strengthen compliance with company policies. This is especially critical since the various parts of production tend to be spread across different geographies and jurisdictions which may not hold to the same environmental and social standards. Where third-party suppliers have failed to meet the requirements, these buyers would benefit from outlining a clear corrective action plan and engaging errant suppliers to improve their practices – provided that the standards they wish to encourage are indeed better for sustainability and the smaller growers who lack capacity can be assisted to shift to new practices and meet higher standards.

3) Non-Governmental Organisations and Citizen Consumers

Apart from stakeholders in the traditional supply chain model, a range of secondary stakeholders is playing a growing role to exert influence and possibly shape the sustainability of the industry. Examples are NGOs and industry associations that can influence not only the companies but also their customers. While government-led certifications for sustainable palm oil such as the MSPO and the Indonesian Sustainable Palm Oil System (ISPO) exist, the creation and role of the industry-driven Roundtable on Sustainable Palm Oil (RSPO) bears particular mention.⁴¹

Established in 2004 as a not-for-profit organisation, the RSPO convenes various stakeholders in the supply chain to develop and adopt global standards for sustainable palm oil. Application of the stipulated set of environmental and social criteria will serve to minimise the negative harm of palm oil cultivation on the environment and

⁴¹ The ISPO was introduced by the Government of Indonesia in 2011 to ensure that all Indonesian growers of palm oil adopt higher agricultural standards. Drawing upon current Indonesian legislation, it seeks to advance the Indonesian palm oil industry's sustainability and competitiveness while supporting the government's commitments to reducing greenhouse gas emissions. On the other hand, the MSPO was first launched in November 2013 and officially implemented in January 2015. The standard aims to help small and mid-range cultivators who found RSPO certification unaffordable, to operate sustainably. See more: https://www.sustainablepalmoil.org/wp-content/uploads/sites/2/2015/09/Efeca_PO-Standards-Comparison.pdf

surrounding communities. Ensuring that these standards are relevant and progressive is fundamental to the credibility of the RSPO; yet, there are also concerns whether smaller players such as smallholders are able to implement these same standards currently adopted by many large growers and producers. Compliance often entails costs that smallholders cannot afford while the lack of certification further prevents these smaller players from enjoying market access to countries in the West. Unless these concerns are addressed, the desire to better protect the environment would run in conflict with the wish to ensure livelihoods for such growers and the families and communities that depend on their output, and foster (albeit unintentionally) increased inequality.

On the other hand, consumers in Singapore have exerted their influence by boycotting the products of companies associated with business practices that cause or contribute to environmental harm. In October 2015, the Singapore Environment Council (SEC) temporarily suspended Asia Pulp & Paper Group (APP)'s exclusive distributor Universal Sovereign Trading's use of their green label while awaiting investigations by Singapore authorities into APP's possible connection to the fires in Indonesia. The Singapore Green Label is an eco-labelling scheme that distinguishes environmentally-friendly industrial and commercial products. Within two weeks, supermarket chains acted swiftly to remove APP's products from the shelves.⁴² A consumer boycott by Singapore, as some advocate, might be of limited use considering the relatively small size of the market. Still, it constitutes an important symbol that might have a ripple effect in similar markets. This is especially as the middle class in ASEAN grows and, with the rise of millennial consumers, is predicted to place more significance on sustainability and other issues.

In the longer-term, however, more awareness is needed to help consumers understand certifications and eco-labels so that they can support and purchase products that are deemed environmentally-friendly. International standards such as the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC) as well as Singapore's own Green Label provide a good starting point and should be promoted by NGOs, proponent companies, and the government alike.

4) Financial Institutions

At present, many international banks already screen their loans on environmental, social and corporate governance (ESG) criteria, seeking certification or other proof that their clients' practices are internationally acceptable and independently verified. While the gap has largely been with ASEAN banks, this is gradually changing with developments such as the issuance of a roadmap on sustainable finance by Indonesia's Financial Services Authority (OJK) in December 2014. The roadmap contains guidelines and policy

⁴² Lim, Jessica (2015) NTUC FairPrice, Sheng Siong, Prime Supermarket remove all Asia Pulp & Paper Group products from stores, The Straits Times, 7 October 2015, [Online], Available: <http://www.straitstimes.com/singapore/environment/ntuc-fairprice-sheng-siong-prime-supermarket-remove-all-asia-pulp-paper-group> Retrieved: 13 April 2017

directives to help support Indonesia achieve its SDGs.⁴³ This was followed swiftly by the eight largest banks in Indonesia, representing 46% of national banking assets, agreeing to commit to implementing sustainable financing as part of global environment goals.⁴⁴ Recently, its largest lender PT Bank Mandiri announced plans not to extend new credits to finance the establishment of new oil palm plantations in peatlands.⁴⁵

In Singapore, partly in response to the haze episode in 2015, the Association of Banks in Singapore issued a set of Guidelines on Responsible Financing in October 2015. The guidelines require disclosure of senior management's commitment to responsible financing and the establishment of a governing body and capacity building for staff on responsible financing. The guidelines also cover environmental, social and governance (ESG) issues.⁴⁶

Apart from banks, institutional investors are a significant and growing actor in global financial markets; as of 2013, institutional investors based in the OECD countries recorded about US\$100 trillion of assets under management.⁴⁷ Long-term institutional investors such as insurance companies and pension funds play an important role to ensure investees address environmental and social issues and in turn contribute to better financial performance. An EY survey of 320 global institutional investors revealed that 89% of respondents are of the view that a "sharp focus" on ESG issues can lead to sustainable returns over time.⁴⁸ In fact, non-financial reporting is of growing importance for institutional investors in light of the recent corporate environmental and social scandals and an emphasis on longer-term value.⁴⁹

Against these developments, companies that disclose their non-financial policies and performance will be in a better position to win the trust and confidence of long-term institutional investors.

⁴³ Sustainable Finance Roadmap, Facilitating Financial Services Institutions to Innovate, OJK, 24 November 2015, Available: <http://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Pages/OJK-Sustainable-Finance-Roadmap,-Facilitating-Financial-Services-Institutions-to-Innovate.aspx>

⁴⁴ Amianti, Grace D. (2015) Banks pledge to support green finance, Jakarta Post, 24 November 2015, Available: <http://www.thejakartapost.com/news/2015/11/24/banks-pledge-support-green-finance.html> Retrieved: 18 April 2017

⁴⁵ ANTARA News (2016) Bank Mandiri stops restrict loan for oil palm plantations, ANTARA News, 23 February 2016, [Online], Available: <http://www.antaranews.com/en/news/103292/bank-mandiri-stops-restrict-loan-for-oil-palm-plantations> Retrieved: 13 April 2017

⁴⁶ The Association of Banks in Singapore (2015) ABS guidelines on responsible financing, 8 October 2015, [Online], Available: <https://abs.org.sg/docs/library/abs-guidelines-responsible-financing.pdf> Retrieved: 13 April 2017

⁴⁷ The World Bank (2015) Institutional investors: The unfulfilled \$100 trillion promise, The World Bank Group, 18 June 2015, [Online], Available: <http://www.worldbank.org/en/news/feature/2015/06/18/institutional-investors-the-unfulfilled-100-trillion-promise> Retrieved: 13 April 2017

⁴⁸ Soh, Andrea (2017) Institutional investors placing more emphasis on non-financial risks, disclosures: EY, The Business Times, 13 April 2017, [Online], Available: <http://www.businesstimes.com.sg/companies-markets/institutional-investors-placing-more-emphasis-on-non-financial-risks-disclosures> Retrieved: 13 April 2017

⁴⁹ Ibid

Some stock exchanges are already promoting sustainability reporting and providing relevant guidance for their listed companies. In 2016, for instance, the Singapore Exchange (SGX) introduced sustainability reporting on a 'comply or explain' basis and Singapore-listed companies are required to release a sustainability report at least once a year, no later than five months following the end of each financial year. The report should cover five components namely, "material ESG factors; policies, practices and performance; targets; sustainability reporting framework; and their Board statement."⁵⁰ Should a company exclude a primary component, it is required to account for the actions taken and its justifications for doing so. The new requirements will apply for any financial year ending on or after 31 December 2017.⁵¹

The Transboundary Haze Pollution Act further provides a compelling case for financial institutions to tighten their lending and investment practices. The Act attributes liability to entities that conduct or condone an act that causes or contributes to haze pollution in Singapore. Although it is not clear what constitutes condoning, this could possibly extend to investors and banks that fail to conduct prior screening and assessments on environmental and social factors.

Even as financial institutions tighten their ESG standards to mitigate the risks that come from financing actions associated with fires and haze, a level-playing field can only be truly established when this approach is replicated by their counterparts in other ASEAN member states. The lending decisions of large institutions of finance and trade in Jakarta, Kuala Lumpur and Singapore in particular, can act as levers to steer large companies and their suppliers to conducting more sustainable practices. This will help accelerate the shift of the economy towards a greener pathway, not only at the national level but also ASEAN-wide.

4.4. Conclusion: Linking across ASEAN and the Global Community

The ASEAN Community challenges regional integration efforts to be both broad and deep. For the AEC, there is a need to deliver concretely on promises so that benefits are felt by the individual — as citizen, consumer and worker, and the businesses, including Small and Medium Enterprises. This involves not only policy reform but changes at the working and technical levels. These challenges faced within the AEC are multiplied when we examine the linkages between the AEC and sustainable development.

The example of ASEAN efforts to stem the problem of the fires and haze in the region shows how the production- and value-chains must be addressed. To drive changes at the production level for both smaller and larger producers, it is not only the environmental

⁵⁰ Tan, Nicole (2016) SGX introduces sustainability reporting on 'comply or explain' basis, Channel NewsAsia, 20 June 2016, [Online], Available: <http://www.channelnewsasia.com/news/business/sgx-introduces/2887676.html> Retrieved: 13 April 2017

⁵¹ Ibid.

policies of governments and their capacity for legal enforcement that must change; the economic strategies must be reoriented so that sustainable development is in the frame, and not just short-term growth. In the longer term, the two objectives are not mutually exclusive.

For that to happen, moreover, it is not only government and the resource producers who must change. A much wider effort is needed to align the market – traders, manufacturers and consumers – as well as the financial and investment communities that enable the industry.

What we have discovered in the example of the fires and haze is singular in that the issue has garnered much attention over the almost two decades since the fires of 1997-98. To truly address this issue, the frame of thinking needs to shift from seeing the haze as an environmental issue only, to one that is inextricably linked to economic and social concerns, and therefore in the paradigm of sustainable development. Solving the haze problem will accordingly need the effort of government institutions that go beyond the environment ministers, and also collaboration between government and other sectors, as earlier detailed.

If this can be applied to the haze, such an approach would also serve to better link sustainable development and environmental concerns to the AEC. Many similar concerns arise in other areas of manufacture and production in ASEAN. This is not only in the agroforestry and resource sectors – which remain foundations for many of ASEAN economies, but especially in manufacturing. Growth and industrial development can bring many benefits such as developing export goods, and driving the creation of jobs. However, unless properly managed, this can increase water and air pollution, and be overly demanding on energy, carbon and other resources. The fires and haze that this chapter has analysed at some length shows only one example of the negative and mostly unintended consequences. ASEAN will need to consider how best to approach the other issues.

A few key policy recommendations may be suggested and briefly outlined, as follows. In many instances, our recommendations begin at the national level for ASEAN members and see ASEAN acting more as providing processes and mechanisms to coordinate and monitor progress where there are transboundary, regional impacts.

1) Reframing Growth and Sustainability in the AEC

A first change, and perhaps the broadest one, is in the frame of decision-making to better reconcile economic growth with sustainability. The environmental argument for such an integration is fairly clear, as the transboundary problem of the fires and haze shows. The physical effects are clear also in the border areas, or when looking at shared rivers and water resources, like the Mekong. The economic merit is perhaps more contestable.

One important argument is that the environment represents a cluster of resources – air, water, etc – that is a factor of production and, as the AEC integrates, becomes increasingly “portable”, embedded in the goods produced. In this sense, the closer ASEAN gets together, there is a need to see that the environment must increasingly be managed across borders. The European Union consciously harmonises the environmental standards and regulations across its members not only as an environmental issue but as an economic one. The North American Free Trade Agreement (NAFTA) also has chapters on environment (and labor) issues to help assuage fears that one NAFTA member might unfairly attract investment and lower the costs of its products by deliberately lowering environmental standards or failing to enforce its stated standards. In the wider Asia-Pacific Economic Cooperation (APEC) process, there is a non-binding declaration on the issue that, amongst other things, pledges not to lower environmental standards for economic and investment advantage.

This is not to say that any one of these examples is ready-made to meet ASEAN’s needs and purposes. But they do suggest that recognising the need is warranted, especially as the AEC proceeds and deepens. To an extent, the AEC Blueprint 2025 has done that in Element B9 on Sustainable Economic Development, albeit the specific measures thereunder are of narrower focus.⁵² With recognition, an intra-ASEAN dialogue about the issue should follow – not only among environmental agencies but with the economic ministries. This of course would have to consider the diverse economic levels and strengths of the ASEAN members as well as their differing environmental policies and priorities. Finding ways to incorporate environmental and sustainability concerns with economic strategies across ASEAN will not be easy, but it will be necessary and indeed essential.

2) Cross-Cutting Efforts at ASEAN and National Levels

The need to reframe the economic growth and sustainability links to an institutional issue for the ASEAN Community. Built on three main pillars, the ASEAN Community does recognise the need for a further, “cross cutting” effort.

Despite this recognition however, there is at present little institutional development in ASEAN’s processes and institutions for this effort. In the diagrammatic representation of ASEAN, there is a Coordinating Council that links across the three pillars before reporting to the leaders. But in practice, this has not gone beyond the immediate preparation for the Summit to address the more substantive issues.

⁵² The new ASEAN Economic Blueprint 2025, for example, has an element (B9) on sustainable economic development which “recognises the importance of sustainable economic development as an integral part of the region’s growth strategy,” and signals ASEAN’s commitment to “actively promote green development by developing a sustainable growth agenda that promotes the use of clean energy and related technologies, including renewable energy through green technology, as well as enhances sustainable consumption and production, and including it in national development plans.”

Moreover, questions of sustainability and environmental protection would be further extenuated. In the present scheme, the environment ministers are to report to the committee of ministers for socio-cultural issues, which then reports to the Coordinating Council. Only at this stage will they receive a separate report from the economic community ministers. It is challenging to try to address cross-cutting issues at this level when these have not been integrated previously. This cross-cutting aspect of developing the ASEAN Community should be strengthened – and the case for sustainability is only one reason for the need. In short, cross-pillar coordination needs to be strengthened beyond reporting to also cover planning and implementation.

It would therefore be helpful for these issues to be better integrated at the national level in each country before the issues are raised at ASEAN level. This may seem an obvious need. Yet when we look across different sectors of the economy in the different ASEAN countries, it is not always the clear case that growth and sustainability issues are dealt with by national agencies. Instead, the environment and sustainability issues are often seen as a separate remit with few or no powers over economic agencies, and little suasion over growth policies. In effect, the same issue at the regional level is often mirrored at the national level.

One attempt to reconcile growth and sustainability issues can be seen in Singapore, which has created a National Climate Change Coordination Secretariat (NCCCS) under the Prime Minister's Office, helmed by a deputy prime minister. The NCCCS brings on board not only the environment minister but also colleagues from trade and industry, national development and other ministries.

Another effort can be seen in Indonesia's initiative to integrate financial regulations and policies with sustainability issues. Discussed earlier in specific relation to the fires and haze, this effort by Indonesia's financial supervising agency, the OJK, has wider implications on economic activity. It requires banks to screen credit and business risk that can arise from environmental and sustainability issues and this runs across many sectors. Potentially, incentives also arise for companies and projects that are "green", with the creation of green bonds and other financial instruments that can offer them better terms and preferential rates while returning investors with good results in both monetary and environmental measures.

These and other efforts being made by different governments at the national level can and should be shared with their respective counterparts across ASEAN. This can be done by the different sectors and among specific agencies. For example, the central banks of ASEAN now meet regularly and their discussions could include sharing information on how each authority sees, and is responding to, "green financing". But it would also be

useful if such growth and sustainability dialogues can also be regularised by ASEAN. The involvement of the private sector, including the financial services industry, would be useful. The example of the fires and haze shows us that on these issues, these non-governmental actors are also critical to any possible solution.

3) Linking to the International Level

Beyond ASEAN, national governments are also looking at sustainability issues in international fora. These have developed strongly in the last few years with the UN effort on SDGs and the Paris Agreement on Climate Change. ASEAN member countries have participated in these processes and have obligations to report on actions taken. Given these international agreements and national obligations, ASEAN could usefully take up a role in mediating and assisting the region as a whole.

Similarly, an ASEAN dialogue on climate change would be of considerable assistance – and not only to environmental issues. Economic strategies will shift as paradigms shift in regard to carbon and other gases that drive climate change. For example, in respect of energy production, consumption and distribution. As the AEC continues to integrate, these trends will need to be identified and responded to – and there will be situations when a collective response by ASEAN can be more effective and efficient.

The search for growth across the world is no longer only an issue of economic policy. Global megatrends encompass issues such as climate change and sustainable development, as the Paris Agreement and SDGs show. Across the region, environmental concerns over clean air and water are now evident. This is not only about the fires and haze, which this chapter has used as an example. but concerns local and transboundary pollution that impacts the lives and livelihoods of many millions of city dwellers across ASEAN (and also in China and India).

Reconciling the demands for both growth and better environmental protection will not be easy and ways to do so are far from assured. But efforts can and should be made – and not only between the different ASEAN governments. The efforts must span across government authorities (the economic as much as the environmental agencies), between government and private sector corporations, up and down the production and value chains in different sectors and products, and between the levels of governance – national, regional and international. As AEC integration furthers, these efforts must grow in tandem.

References

Amianti, Grace D. (2015), Banks Pledge to Support Green Finance, *Jakarta Post*, 24 November 2015, Available: <http://www.thejakartapost.com/news/2015/11/24/banks-pledge-support-green-finance.html>, Retrieved: 18 April 2017

ANTARA News (2016), Bank Mandiri Stops Restrict Loan for Oil Palm Plantations, *ANTARA News*, 23 February 2016, Available: <http://www.antaranews.com/en/news/103292/bank-mandiri-stops-restrict-loan-for-oil-palm-plantations>, Retrieved: 13 April 2017

APRIL Group (2015), Press release, APRIL Group Launches Fire Free Village Programme, *APRIL Group*, 28 July 2015, Available: http://www.aprilasia.com/images/pdf_files/20150728-FireFreeVilagePressReleaseFINAL.pdf, Retrieved: 13 April 2017

Arshad, Arlina (2017), Indonesia Aims to Bury Slash-and-burn, *The Straits Times*, 14 January 2017, Available: <http://www.straitstimes.com/asia/se-asia/indonesia-aims-to-bury-slash-and-burn>, Retrieved: 22 May 2017

ASEAN (2015), ASEAN Socio-Cultural Community Blueprint 2025, Available: <http://asean.org/storage/2016/01/ASCC-Blueprint-2025.pdf>

ASEAN (2016), Roadmap on ASEAN Cooperation Towards Transboundary Haze Pollution Control With Means of Implementation, Association of Southeast Asian Nations, Available: http://environment.asean.org/wp-content/uploads/2016/11/Roadmap-ASEAN-Haze-Free_adoptedbyCOP12.pdf

ASEAN Secretariat (2015), Overview of ASEAN Cooperation on Environment, Available: <http://environment.asean.org/about-us-2/>

Barratt, Olly (2016), Haze Episode Cost Singapore Estimated S\$700m Last Year: Masagos, *Channel NewsAsia*, 15 March 2016, Available: <http://www.channelnewsasia.com/news/singapore/haze-episode-cost/2605406.html>, Retrieved: 17 March 2016

Bisara, Dion and Listiyarini, Tri (2016), Indonesia to Issue a Moratorium on New Palm Oil Concessions, *Jakarta Globe*, 15 April 2016, Available: <http://jakartaglobe.id/business/indonesia-issue-moratorium-new-palm-oil-concessions/>, Retrieved: 12 April 2017

Chan, Francis (2015), \$47b? Indonesia Counts Costs of Haze, *The Straits Times*, 11 October 2015, Available: <http://www.straitstimes.com/asia/47b-indonesia-counts-costs-of-haze>, Retrieved: 14 January 2016

Channel NewsAsia (2017), Malaysia Strongly Opposes Proposed EU Resolution on Palm Oil, *Channel NewsAsia*, 15 March 2017, Available: <http://www.channelnewsasia.com/news/asiapacific/malaysia-strongly-opposes-proposed-eu-resolution-on-palm-oil-8761786>, Retrieved: 22 May 2017

Halim, Haeril (2017), Peatland Restoration Target to be Sped Up, *The Jakarta Post*, 12 January 2017, Available: <http://www.thejakartapost.com/news/2017/01/12/peatland-restoration-target-be-sped.html>, Retrieved: 12 April 2017

European Parliament (2017), Press Release, MEPs Call for Clampdown on Imports of Unsustainable Palm oil and Use in Biofuel, *European Parliament*, 4 April 2017, Available: <http://www.europarl.europa.eu/news/en/news-room/20170329IPR69057/meps-call-for-clampdown-on-imports-of-unsustainable-palm-oil-and-use-in-biofuel>, Retrieved: 22 May 2017

Fabi, Randy and Munthe, Bernadette Christina (2016), Subsidy Sham: Fertilisers Reach Indonesia Plantations, Not Small Farmers, Reuters, 14 February 2016, Available: <http://www.reuters.com/article/us-indonesia-fertilizers-idUSKCN0VN127>, Retrieved: 22 May 2017

Fogarty, David (2016), Taking the Hot Seat in War on Haze, *The Straits Times*, 18 April 2016, Available: <http://www.straitstimes.com/asia/se-asia/taking-the-hot-seat-in-war-on-haze>, Retrieved: 12 April 2017

Grace D. Amianti, Banks Pledge to Support Green Finance, *Jakarta Post*, 24 November 2015, Available: <http://www.thejakartapost.com/news/2015/11/24/banks-pledge-support-green-finance.html>, Retrieved: 18 April 2017

Heng, Eve Sonary (2015), Haze Forces 4,778 Schools to Close Today; 2,696,110 Students Affected, *BorneoPost Online*, 22 October 2015, Available: <http://www.theborneopost.com/2015/10/22/haze-forces-4778-schools-to-close-today-2696110-students-affected/>, Retrieved: 14 January 2016

Jakarta Globe (2015) Minister: Haze Death Toll Climbing, *The Jakarta Globe*, 28 October 2015, Available: <http://jakartaglobe.beritasatu.com/news/haze-death-toll-reaches-19/>, Retrieved: 16 January 2016

Jensen, Fergus and B. C. Munthe (2016), Indonesia Fire Arrests Jump Amid Efforts to Stop Haze, *TODAYOnline*, 25 August 2016, Available: <http://www.todayonline.com/world/indonesia-fire-arrests-jump-amid-efforts-stop-haze>, Retrieved: 12 April 2017

Kotwani, Monica and Liyana Othman (2016), Study to be Conducted to Assess Impact of 2015's haze in ASEAN, Channel News Asia, 4 May 2016, Available: <http://www.channelnewsasia.com/news/singapore/study-to-be-conducted-to/2754908.html>, Retrieved: 10 March 2017

Letchumanan, Raman (2015), Road Map for a Transboundary Haze-Free ASEAN by 2020: Time to Implement Agreement, RSIS Commentary, No. 237 – 9 November 2015, Available: <https://www.rsis.edu.sg/wp-content/uploads/2015/11/CO15237.pdf>

Lim, Jessica (2015), NTUC FairPrice, Sheng Siong, Prime Supermarket Remove all Asia Pulp & Paper Group products from stores, *The Straits Times*, 7 October 2015, Available: <http://www.straitstimes.com/singapore/environment/ntuc-fairprice-sheng-siong-prime-supermarket-remove-all-asia-pulp-paper-group>, Retrieved: 13 April 2017

Nik Anis, Mazwin (2017), Malaysia Opposes EU Resolution on Palm Oil, *The Star Online*, 16 March 2017, Available: <http://www.thestar.com.my/news/nation/2017/03/16/msia-opposes-eu-resolution-on-palm-oil-mah-we-will-collaborate-with-indonesia-to-present-our-case/>, Retrieved: 12 April 2017

OJK (2015), Sustainable Finance Roadmap, Facilitating Financial Services Institutions to Innovate, OJK, 24 November 2015, Available: <http://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Pages/OJK-Sustainable-Finance-Roadmap,-Facilitating-Financial-Services-Institutions-to-Innovate.aspx>

Raina, Leela (2015), Opportunities for Increasing Productivity & Profitability of Oil Palm Smallholder Farmers in Central Kalimantan, *Climate Policy Initiative*, April 2015, Available: <https://climatepolicyinitiative.org/publication/oil-palm-smallholder-farmers-study/>, Retrieved: 12 April 2017

Soeriaatmadja, Wahyudi (2014), Indonesia's Parliament Agrees to Ratify ASEAN Haze Pact, *The Straits Times*, 16 September 2014, Available: <http://www.straitstimes.com/asia/se-asia/indonesias-parliament-agrees-to-ratify-asean-haze-pact>, Retrieved: 12 April 2017

Soh, Andrea (2017), Malaysia Prefers to Use Diplomacy to Fight Haze-causing Fires, *The Business Times*, 7 April 2017, Available: <http://www.businesstimes.com.sg/government-economy/malaysia-prefers-to-use-diplomacy-to-fight-haze-causing-fires>, Retrieved: 12 April 2017

Soh, Andrea (2017), Institutional Investors Placing More Emphasis on Non-financial Risks, Disclosures: EY, *The Business Times*, 13 April 2017, Available: <http://www.businesstimes.com.sg/companies-markets/institutional-investors-placing-more-emphasis-on-non-financial-risks-disclosures>, Retrieved: 13 April 2017

Suzuki, Jun (2016), Indonesia Teams up With Japan Experts to Prevent Peatland Wildfires, *Nikkei Asian Review*, 31 August 2016, Available: <http://asia.nikkei.com/print/article/198532> Retrieved: 12 April 2017

Tan, Nicole (2016), SGX Introduces Sustainability Reporting on 'Comply or Explain' Basis, *Channel NewsAsia*, 20 June 2016, Available: <http://www.channelnewsasia.com/news/business/sgx-introduces/2887676.html>, Retrieved: 13 April 2017

The Association of Banks in Singapore (2015), ABS Guidelines on Responsible Financing, 8 October 2015, Available: <https://abs.org.sg/docs/library/abs-guidelines-responsible-financing.pdf>, Retrieved: 13 April 2017

The World Bank (2015), Institutional investors: The Unfulfilled \$100 Trillion Promise, *The World Bank Group*, 18 June 2015, Available: <http://www.worldbank.org/en/news/feature/2015/06/18/institutional-investors-the-unfulfilled-100-trillion-promise>, Retrieved: 13 April 2017

The World Bank (2015), Reforming Amid Uncertainty, *Indonesia Economic Quarterly*, December 2015, Available: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/12/844171450085661051/IEQ-DEC-2015-ENG.pdf> Retrieved: 14 January 2016

UN (2015), Transforming Our World: the 2030 Agenda for Sustainable Development, Available: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E, Retrieved: 1 April 2017

Uramoto, Yoshiteru (2014), Can the ASEAN Economic Community Deliver the Jobs for the People? *The Straits Times*, 3 September 2014, Available: <http://www.straitstimes.com/opinion/can-the-asean-economic-community-deliver-the-jobs-for-the-people>, Retrieved: 18 March 2017

