

ALAN MARSHALL,¹ MARK STEPHAN FELIX,²
KANANG KANTAMATURAPOJ,³
NANTHAWAN KAENKAEW⁴

GRAPHIC GLOBAL WEIRDING SCENARIOS FOR ASEAN'S CAPITAL CITIES

ABSTRACT

What is the future of the ten ASEAN capitals? This article speculates upon how to answer this question by drawing on evidence of the advancing global weirding of the world's ecology (especially as influenced by climate change) to outline ten diverse, graphically illustrated, scenarios for the ten capital cities of ASEAN (Association of South East Asian Nations). The varying, and often unique, socio-political background of each of these under-theorised urban settings, from Bandar Seri Begawan in Brunei to Vientiane in Laos, is subjected to imagined eco-catastrophic futures based upon the weird science now effusing from ecology, climatology and sustainability studies. This condition of global weirding is set to radically change the urban environments of

these ten capitals. This stands in stark contrast to the strong desire by most of ASEAN governments to keep the socio-political structures of their nations from changing at all, which in turn, only exacerbates global weirding and its impacts. Each ASEAN urban future scenario presented here ends up being quite peculiar, horrific, radical, and awful. In that sense, they act as a warning for residents/leaders/theorists of these cities regarding their impending future if no proper form of socio-political or economic changes are entertained.

KEY WORDS: global weirding, climate change, Asia, environment, urban futures

INTRODUCTION

Global warming as a concept seems easy to comprehend. It is but a one-dimensional physical process; acceptable or deniable by concentrating on one physical property: an increase in average global temperature.⁵ This physical property is usually overlaid against background eco-settings like glaciers, ice sheets, and shifting water flows and moving ecozones. However, the term ‘global warming’ does not come close to effectively describing what the natural and human world is experiencing under a transforming climate—which is why the term ‘global weirding’ has been introduced as an alternative.⁶ In the realm of the environmental sciences, global weirding

¹ Dr Alan Marshall is a lecturer in the environmental social science programme at the Faculty of Social Sciences and Humanities, Mahidol University, in Thailand. His academic work has appeared in journals as diverse as the *Journal of Applied Philosophy*, *Asian Public Policy*, and *Studies in the History and Philosophy of Science*. He has also written articles and created artwork about future cities for *CNN*, *The Independent*, *Al Jazeera*, *Daily Mail*, *HuffPost*, and *National Geographic*. His various book projects include *The Unity of Nature* (London and Singapore: Imperial College Press and World Scientific, 2002), *Wild Design* (Berkeley: North Atlantic Books, 2009) and *Dangerous Dawn: the New Nuclear Age* (Melbourne: Friends of the Earth, 2006).

² Assistant Professor Mark Stephan Felix holds a PhD in Sociology/Anthropology from the Universiti Sains Malaysia. He was awarded his BA and MA in Organizational Communication by the Western Michigan University, USA. He is on the editorial board of the journal *Asia Pacific Social Science Review* and has been affiliated with the Department of Society and Health, Faculty of Social Sciences and Humanities, Mahidol University, Thailand, since 2013.

³ Dr Kanang Kantamaturapoj is an Associate Professor at the Faculty of Social Sciences and Humanities, Mahidol University, Thailand. Her recent book chapters include “Facilitating Political Consumerism in an Emerging Economy: The Case of Political Consumerism in Thailand” in *The Oxford Handbook of Political Consumerism* (2019), and “The Retail Sector and Sustainable Food Provision in Thailand” in *The SAGE Handbook of Nature* (2018). Her articles have also appeared in *Impact Assessment and Project Appraisal*, *Bulletin of the World Health Organization*, *Health Policy and Planning*, *Health Expectations*, *BMJ Global Health*, *BMC Health Service Research*, *Journal of Cultural Heritage Management and Sustainable Development*, and *Heliyon*.

⁴ Nanthawan Kaenkaew has training in scientific visualization and computer science and has recently graduated with an MSc in Urban Environmental Management from the Asian Institute of Technology, in Thailand. She has had her visualizations published in academic journals and popular magazines as well as displayed in the Museum of London. A short film she co-produced called *The Literary Method of Urban Design* (2019) was featured in the *Kuala Lumpur Environmental Film Festival* (Malaysia) and at the *Saratov Sufferings Docu-Drama Film Festival* (Russia).

⁵ See Edmond Mathez and Jason Smerdon, *Climate Change: the Science of Global Warming and Our Energy Future* (New York: Columbia University Press, 2019).

⁶ The term’s origin is generally attributed to Thomas L. Friedman’s article “Global Weirding is Here,” *New York Times*, February 17, 2010. See also Ernst LeClair, “‘Global Weirding’ Better Way To Describe Climate Change Than ‘Global Warming,’” *CBS-DC Online*, February 19, 2015, and Mercedes Hutton, “Typhoon Mangkhut, ‘global weirding’ and how tourism contributes to climate change,” *South China Morning Post*, September 19, 2018. Of course, a host of alternative labels to ‘global warming’ have been adopted over the past decades, some more popular in the press than others, like ‘climate change,’ ‘climate crisis,’ ‘climate emergency’ and ‘global heating.’ ‘Global weirding’ suits us here since it

embraces a range of known phenomena; such as the unbalancing of the seasons, increased extreme weather events, drastic alteration in geographic distribution of both humans and non-humans, and increased intensity of thermal stress, drought, flooding, plague, famine, along with amplified eco-disturbance and intraspecies competition.⁷ However, it also includes the hard-to-predict socio-ecological impacts of these phenomena and also the unknown and unpredictable distended socio-ecological and socio-political reactions to them that probably lie in wait around the corner (in the near or far future). Global weirding thus implies the rising dominance of the extreme, the non-normal, the peculiar, the unbalanced, the unpredictable—and of an overpowering sense that humanity is losing its (assumed) position of control over the physical world about it.

Set upon a planet of advancing global weirding, many social institutions, especially urban authorities and national governments, are variously (and contemporaneously) trying to deny, ignore, downplay, mitigate, take advantage of, or adapt to the oncoming weirdness of the world. In ASEAN nations, all these approaches and reactions are evident, though in wildly varying degrees and forms, and so we, the authors, would like to outline ten different speculative⁸ scenarios about how global weirding may soon overwhelm the capitals of these countries in various ways.

ASEAN (the Association of South East Asian Nations) is a loose collective organisation of member states; not much more than an aspiring NAFTA and a whole lot less than an aspiring EU. It started off with five members during the Cold War era, namely Indonesia, Malaysia, The Philippines, Singapore, and Thailand, and has since grown to ten members; now including Brunei, Myanmar (Burma), Cambodia, Laos and Vietnam. In the beginning, the members joined together mainly to strengthen their political resilience in the face of the growing influence of communism in the region and “to foster peace and cooperation”⁹ between member states.

Given that an all-out-war has not occurred between the states (whilst they were in ASEAN membership), the group might be regarded as a success story¹⁰ though

conveys not only strangeness and vulnerability but also the inability of humans and the sciences to fully grasp what is happening.

⁷ See, for example, Jonathan Hiskes, “Global weirding, East Coast snow storms, and Vancouver’s snow shortage,” *Grist*, February 11, 2010; Fred Bunnell et al., “Global weirding in British Columbia: Climate change and the habitat of terrestrial vertebrates,” *BC Journal of Ecosystems and Management* 12, no. 2 (2011): 21-39; Phil Plait, “Global Weirding,” *Slate*, November 1, 2016; Stuart Thompson, “Food Production in an Age of Global Warming and Weirding,” *The Biochemist* 40, no. 4 (2018): 9-12; Line Cordes, “How animals are coping with the global ‘weirding’ of the Earth’s seasons,” *The Conversation*, July 8, 2020; and John A. Sweeney, “Extreme Weirding,” *Critical Muslim* 17, no. 2 (2016): 39-46.

⁸ The role of speculative thinking in fostering awareness of and discussion about various alternative possibilities to the current shape of things in the world is explored in detail in Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (MIT Press, 2013), and Bruce M. Tharp and Stephanie M. Tharp, *Discursive Design: Critical, Speculative, and Alternative Things* (Cambridge: MIT Press, 2019).

⁹ See Christopher Roberts, *ASEAN Regionalism: Cooperation, Values and Institutionalisation* (London: Routledge, 2013).

¹⁰ As declared by the likes of Kishore Mahbubani and Jeffery Sng, *The ASEAN Miracle: Catalyst for Peace* (Singapore: National University of Singapore, 2017).

the ongoing civil wars *within* the states might show ASEAN as an abject failure.¹¹ For ASEAN leaders, though, the main aim nowadays is to take advantage of the regional peace and stability by working as a cooperative bloc in the arena of trade and diplomacy.¹² The broad idea¹³ is that ASEAN countries working together will have much more power and influence to compete with the growing economic and military might of China than if they act individually.

However, according to numerous international affairs analysts,¹⁴ ASEAN has shown itself—time and again—as completely ineffective when facing the plethora of serious problems besetting the region. For example, ASEAN has not been able to arrest the spread of slavery, child soldiery, ethnic genocide, and terrorism. Nor has it successfully mitigated natural disasters or man-made calamities let alone addressed human rights violations¹⁵ or the appalling levels of social and political inequality ravaging the ASEAN states.¹⁶ This suggests that any hope invested in ASEAN to address, manage, or cooperatively forestall the looming environmental tragedy is probably misplaced as well.

¹¹ As declared by the likes of Lee Leviter, “The ASEAN Charter: ASEAN Failure or Member Failure,” *International Law and Politics* 43, (2010): 159-89.

¹² As suggested by commentators such as Amitav Archarya, *ASEAN and Regional Order* (London: Routledge, 2021), and Marty Natalegawa, *Does ASEAN Matter?* (Singapore: ISEAS – Yusof Ishak Institute, 2019).

¹³ As suggested by Jacques Pelkmans *The ASEAN Economic Community: A Conceptual Approach* (Cambridge: Cambridge University Press, 2016). ASEAN, itself, proffers to be involved in much more than trade and diplomacy; claiming to support regional issues in immigration, sustainability, health promotion, and cultural heritage. See, for example, the media gallery produced by ASEAN itself at: www.asean.org.

¹⁴ For instance, see the report by Human Rights Watch (HRW) entitled *Human Rights in Southeast Asia Briefing: Materials for the ASEAN-Australia Summit in Sydney, Australia, March 17-18* (Human Rights Watch, 2018), and See Seng Tang, “Whither the People in the ASEAN Community,” *Regions and Cohesion* 10, no. 3 (2020): 43-57.

¹⁵ See Human Rights Watch (HRW) report entitled *Human Rights in Southeast Asia Briefing: Materials for the ASEAN-Australia Summit in Sydney, Australia, March 17-18* (Human Rights Watch, 2018), and See Seng Tang, “Whither the People in the ASEAN Community.”

¹⁶ Though its failings are monumental, the blame for them should not lie solely at the door of ASEAN itself. ASEAN is but a sum of its parts and the parts variously comprise dictatorships and kleptocracies plus partial, authoritarian, semi- or pseudo-democracies in disaster-prone geographies with zones of civil war, mismanaged government agencies, and social contexts, whereby the business elite work against civic openness to horde wealth via corruption, cronyism, paternalism, patriotism, and the skillful and forceful suppression of basic ideals of social fairness, tolerance of diversity, and political pluralism. Despite such glaring problems, South East Asian leaders have always been exceedingly sensitive to any kind of international interference—diplomatic interference included—coming from other members. This sensitivity is written into ASEAN’s “Treaty of Amity and Cooperation” whereby each member agrees to non-interference in the internal affairs of one another. Sometimes, this ideal is lauded as the ‘ASEAN Way’ whereby member states refrain from launching any kind of critique at another member (ostensibly because this means throwing stones in glass houses). In a way, one of ASEAN’s main goals as a treaty organization is to hinder the ten states of South East Asia from embarrassing each other via public quarrelling. For discussions about these issues, see Robert Yates, *Understanding ASEAN’s Role in the Asia-Pacific Order* (Cham: Palgrave, 2020); Roderick McDonald, ed., *South East Asia and the ASEAN Economic Community* (Cham: Palgrave, 2020), Mark Beeson, “What’s the Point of ASEAN?” *Asia Times*, May 1, 2017, <https://asiatimes.com/2017/05/whats-point-asean/>.

Though most ASEAN economies are growing faster than the global average, this rapid growth is not attenuating many of South East Asia's socio-ecological problems and is very probably making them worse; especially as global weirding becomes more entrenched in the region. This is most apparent in the urban settings of ASEAN, and to graphically illustrate this, we are positing ten original global weirding scenarios to reflect upon and predict the worse end possibilities that the ASEAN capitals are heading toward over the coming series of decades. As you might see below, the condition of global weirding, induced primarily by climate change but also by other ecological crises, is set to radically change the urban environments of these ten capitals. This stands in stark contrast to the desire by all or most ASEAN governments to keep their societies and political settings from changing at all¹⁷—which in turn, only exacerbates global weirding and its detrimental social impacts.

THE WEIRD DENUDED FUTURE OF DESERTIFIED BANDAR SERI BEGAWAN

The Kingdom of Brunei, a small state on the huge island of Borneo, is proportionately a large contributor to global weirding due to its vibrant fossil fuel industry. However, the Kingdom's future ecology is wrapped up with its geographic neighbor, Malaysia, whose border lies close to Brunei's capital, Bandar Seri Begawan. Presently, Brunei's rainforest ecosystems have remained largely intact whilst in other areas of Borneo (including in the Malaysian state of Sarawak which completely envelopes Brunei) an expanding program of deforestation is wreaking havoc upon the landscape.¹⁸ The forests are either being burned away or cut clear for a variety of reasons; to harvest timber, to search for subsurface resources, and—ever-increasingly—to make room for vast industrial palm-oil farmlands and palm-oil processing facilities.¹⁹

In the future, it is possible that the Sarawak rainforests will be cleared all the way to within an inch of the Brunei national border. This might seem all right for Brunei if the trees on the Brunei side of the border remain intact but due to the ecological consequences of what are called 'edge effects' there is likely to be a massive impact within Brunei, too. Forest edge effects are a group of physical impacts that extend into the interior of a forested zone from an adjacent deforested zone. For example, if the forests of Malaysian Borneo are burnt away or felled right up to the

¹⁷ As expressed in Roderick McDonald, ed., *South East Asia and the ASEAN Economic Community* (Cham: Palgrave, 2020); Kamarulzaman Askandar, Jacob Bercovitch and Mikio Oishi "The Asian Way of Conflict Management," *Asian Journal of Political Science* 10, no. 2 (2002): 21-42; Christopher B. Roberts, *ASEAN Regionalism: Cooperation, Values and Institutionalisation* (London: Routledge, 2013); Lee Leviter, "The ASEAN Charter: ASEAN Failure or Member Failure," *International Law and Politics* 43, (2010): 159-89; Donald E. Weatherbee, *ASEAN's Half-Century* (New York: Rowman & Littlefield, 2019), and Robert Yates, *Understanding ASEAN's Role in the Asia-Pacific Order* (Cham: Palgrave, 2020).

¹⁸ As assessed by Reed L. Wadley, *Histories of the Borneo Environment* (Leiden: Brill, 2005).

¹⁹ As described by Alex Shoumtoff, *The Wasting of Borneo: Dispatches from a Vanishing World* (Boston: Beacon Press, 2017).

borderline with Brunei, the massive reduction in atmospheric humidity (as well as the drying out of the soil) will be felt far across the border and into the Brunei forest. This means that by the mid-21st century, the Brunei forestlands will be at very high risk of wildfires.²⁰ Also, if the weather becomes generally windier and the rainfall is generally lower (which is very probable for a landscape denuded of trees), then the wildfires could easily spread to Brunei's capital, cloaking it with smoke whilst degrading the immediate surroundings.



Figure 1. The weird denuded future of desertified Bandar Seri Begawan.

When the rains return, the deserted landscape will suffer rampant erosion, washing away invaluable soil, thus destroying the ability of the forest to recover. The erosion will also likely pollute and silt-up the harbor and waterways of Bandar Seri Begawan so they become unnavigable for vessels big and small; an unfortunate and eerie scenario—both ecologically and economically.

THE WEIRD WET FUTURE OF BANGKOK UNDER RISING SEAS

Situated near the delta of the Chao Phraya River, Bangkok has often been called the ‘Venice of the East’ because of its many canals and waterways stretched around the city. Due to its low-lying topography, and proximity to the sea, Bangkok is threatened by riverine and coastal flooding every year. In 2011, a massive flood, the maximum

²⁰ As explained in Christiane Runyan and Paolo D’odorico, *Global Deforestation* (London: Cambridge University Press, 2016).

ever recorded in Thailand, struck the Chao Phraya River.²¹ As a belated counter measure, the government implemented a hugely expensive (albeit probably ineffectual) flood mitigation project in the following years; whereby the canals were deepened and cleared, their interior walls reinforced, and dikes and locks refurbished.

Alas, in the future, as global weirding acts to increase both sea-level heights and the prevalence of monsoons and cyclones, Bangkok is likely to experience ever-worsening extreme floods in the coming decades.²² It has been predicted that at some point in time over the coming weirded-out decades, the lower elevations of Bangkok will be permanently under water²³ and entire city districts will have to be moved further inland or to higher zones to survive. In the meantime, the Thai government is not doing anything substantial to mitigate the impending weirding of the city, working behind the curve to restore canals so they can handle the floods of yesteryear but not of the future. As well, they are instigating a grand and technologically-inappropriate riverine beautification project in the most populous part of Bangkok's main river; constructing obstructive embankments and a showy promenade. It is hoped that this might entice wealthier visitors and more tourists to a new modern picture-postcard riverside.²⁴

If Thailand had an open and transparent decision-making structure, the plan would have been shut down for a host of reasons: undisclosed financial contracts, dubious engineering plans, reports of messed-up river flows, and flawed environmental impact reports.²⁵ Yet Thailand's unelected military government²⁶ forged ahead with this project at the behest of its top-brass leaders. The project also

²¹ As reported by Alan Taylor, "Worst Flooding in Decades Swamps Thailand," *The Atlantic*, October 12, 2011, <https://www.theatlantic.com/photo/2011/10/worst-flooding-in-decades-swamps-thailand/100168/>.

²² See Walter Leal Filho, ed., *Climate Change in the Asia-Pacific Region* (Cham: Springer, 2015).

²³ See Aekarach Sattaburuth, "Bangkok could be submerged in 15 years," *Bangkok Post*, July 22, 2015, <https://www.bangkokpost.com/learning/advanced/632520/bangkok-could-be-submerged-in-15-years>.

²⁴ See, for instance, Sasiwan Mookhasen, "Friends of Chao Phraya Explain Why They Hate 'Highway on the River'," *Khaosad*, April 5, 2017, <https://www.khaosodenglish.com/news/bangkok/2017/04/05/diverse-groups-united-hatred-highway-river/>.

²⁵ See Sam Nathapong, "Riverside Promenade to Move Ahead Without Environmental Impact Study," *BK*, June 11, 2015, <https://bk.asia-city.com/city-living/news/riverside-promenade-moves-along-without-concerns-environmental-impact>.

²⁶ The military government later transformed into a civilian government in 2019 as military leaders colluded with their own lawyers and lawmakers to write and ratify a new constitution that suited their own needs and desires to retain power and control the nation before setting up their own political party and staging flawed elections in which opposition parties were either banned outright or prohibited from campaigning freely. When the military party "won" this rigged election, the same military leaders then assumed all the top civilian posts of government, putting the military coup leader, an army general, in charge again as a 'civilian' prime minister (thus allowing his pet projects to proceed). At least, this is the view of many commentators not linked with the present (military) government. See, for example: Peter Zomber, "2019 a False Dawn for Democracy in Thailand, Analysts Say," *VoA*, December 28, 2019, https://www.voanews.com/a/east-asia-pacific_2019-false-dawn-democracy-thailand-analysts-say/6181749.html.

involved forced removal of residents, many of whom have been living as families in long-established informal settlements. The government planners state this is an unfortunate side-effect of progress but really the evictions are not just a side-effect, they are a core goal of the project. Bangkok's developers, planners and businesses conspired to get rid of these local residents in order to build highly profitable shopping malls, condominiums and office blocks. However, they had to invent a more palatable 'pseudo-civic' urban plan to do it; hence the posters of a touristy riverside promenade scattered all over the city.²⁷ Alas, if the promenade does not fall apart via bad design (or via poor construction or lapse safety regulations) and if it survives being ploughed into by the odd riverboat whose navigation it is obstructing (and if it isn't pulled down or sabotaged by the angry dislocated residents), the grand promenade is likely to be eroded and drowned within a few dozen years, anyway—as the following scenario of a weird future Bangkok foreshadows.

In this scenario, after a global average temperature rise of three to four degrees centigrade and after a global sea-level rise of three to four metres, the land area nearer the low-lying southern end of Bangkok is drowned underwater leaving only a few islands—both natural and artificial—poking above the surface during high tide. To connect these islands, walkways are contrived from the silt heaps and garbage dumps spread across the city. In this way, a series of functional promenades, rather than one giant dysfunctional one, is extended across the submerged parts of the future Bangkok.

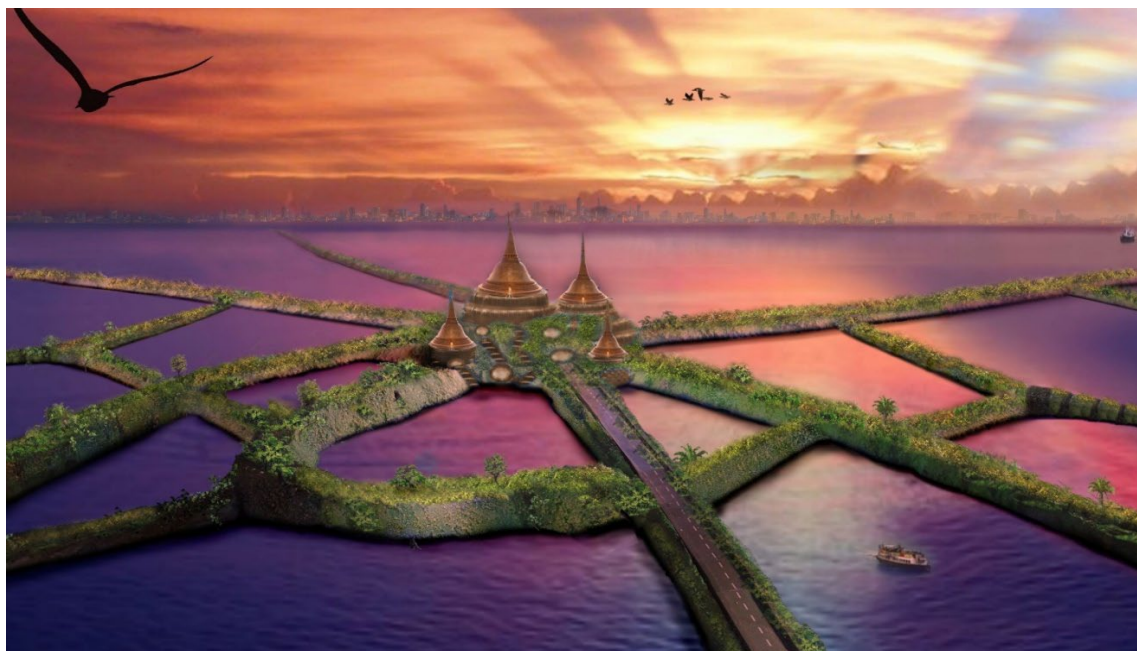


Figure 2. The weird wet future of Bangkok under rising seas.

²⁷ See the report entitled *Urban Development in Bangkok—Development for Whom?* (Focus of the Global South, 2017).

The Bangkok of this weird future has become a topographical inverse of the ‘Venice of The East.’ Where there was once a network of canals moving water around, now there is a network of earthwork walkways providing movement between the remaining land sites.

THE WEIRD POLLUTED FUTURE OF CYCLONE-RAVAGED HANOI

The lakes and waterways of Hanoi, the second largest urban setting in Vietnam, are often dangerous and grotesque: sometimes garbage-filled, frequently unsanitary, and borderline toxic. They can serve as major health hazards via both chemical pollution and biological disease. Yet, as more hazardous industrial zones spring up throughout the city, the problem of water pollution is set to get worse. Whilst economists celebrate the exponential growth of its capital, many poorer Hanoi locals must persist in the daily lives with little access to either clean water or to a working sewage system. In the future, this situation could improve as the government and industries invest in clean environment initiatives. Or it may get worse as these initiatives do not keep pace with industrial expansion, especially since global weirding will increase the frequency and strength of cyclonic storms coming in from the Pacific. Here in this scenario, for instance, a deluge of cyclone-dumped rainwater sweeps through the city—drowning many suburbs with noxious and putrid flood water.



Figure 3. The weird polluted future of cyclone-ravaged Hanoi.

Here in this graphic representation of Hanoi’s potential future, a series of new urban hubs are constructed—raised on the ancient citadels to avoid exposing citizens to pollution and illness during the many subsequent floods caused by global weirding.

THE WEIRD BROKEN FUTURE OF DROWNING JAKARTA

Jakarta, the capital of Indonesia, is a megacity of 20 million people. Some parts of the city are sinking due to land subsidence²⁸—occurring at a rate of 20 cm per year in some places. A primary cause of this subsidence is the over-extraction of groundwater via unregulated wells. This, itself, is a consequence of the poor provision of public water services by the government. However, the sinking land of Jakarta is occurring simultaneously with the rising sea levels caused by global weirding. In the future—though it is hard to predict—it is likely the sea will rise at least another meter around Jakarta, maybe much more.²⁹ This is one of the reasons that Jakarta is likely to relinquish its role as national capital as the government seeks to set up a new capital in Borneo over the coming decades.³⁰

Even now, for areas of Jakarta near the sea and for riverine zones, floods are a common occurrence during the rainy season and during high tides. For a few days each month, many children paddle in makeshift canoes to get to school. On these days they often must take their classes on the school's roofs to stay dry. In the future, things will only get weirder. If present public practices continue, a retinue of partial remedies will likely be attempted to stem the rapidly rising tides and ensuing deluge.³¹ Presently, these remedies range from relocating flood-exposed households, through to the widening of the riverbanks and the building of levees and embankments. The slow, isolated, piecemeal approach of these projects (as well as the corruption associated with their financing) will only work to make vulnerable and displaced citizens angry, and to generally undermine confidence in the government's future engineering projects.

Despite the failures, according to the scenario depicted here, sometime in the future, the government decides to 'think big' and build a huge sea wall around the vulnerable parts of the city. Just a few weeks after it is finished, though, sometime in the mid-21st century, an early challenge impacts upon the project as an El Nino-powered super-typhoon throws a huge flood surge at the wall.

²⁸ See Michael Kimmelman, "Jakarta Is Sinking So Fast, It Could End Up Underwater," *New York Times*, December 21, 2017, <https://www.nytimes.com/interactive/2017/12/21/world/asia/jakarta-sinking-climate.html>.

²⁹ See, for example, Jeff Goodell, *The Water Will Come: Rising Seas, Sinking Cities, and the Remaking of the Civilized World* (New York: Back Bay Books, 2017).

³⁰ For example, see Jonathan Watts, "Indonesia announces site of capital city to replace sinking Jakarta," *The Guardian*, August 29, 2019, <https://www.theguardian.com/world/2019/aug/26/indonesia-new-capital-city-borneo-forests-jakarta>.

³¹ As predicted by the likes of Katrin McGaurin, "Indonesian giant sea wall project pseudo-solution for Jakarta Bay," *SOMO*, April 21, 2017, <https://www.somo.nl/indonesian-giant-sea-wall-project-pseudo-solution-for-jakarta-bay/>.



Figure 4. The weird broken future of drowning Jakarta.

Within a few hours, the wall starts crashing apart via both overtopping and undercutting, and the water rushes to flood the sections of Jakarta in a manner never seen before.

THE WEIRD SHROUDED FUTURE OF HAZY KUALA LUMPUR

Since the early 1980s, Kuala Lumpur has suffered an ongoing environmental problem called ‘The Haze’ whereby a massive smoggy cloud descends over the city in a gloomy dirty shroud.³² The Haze is made up of the smoke of burnt fields, grasslands, peatlands, and woodlands across South East Asia. The fields and woodlands are burnt as an expedient way to clear away the remains of old-crops—and also to clear away forest vegetation quickly and inexpensively so as to make space for palm oil plantations. Because of the global weirding impacts, especially those related to water loss, these agricultural fires are increasingly giving rise to out-of-control wildfires, which magnifies The Haze further. The fires that lead to The Haze are mainly occurring within the Indonesian territory but the smoke inevitably drifts across other ASEAN nations, especially Singapore and Malaysia. The agricultural burnings that give rise to The Haze are illegal but, so far, no authority has been able to stop them. The Haze is especially troublesome for the residents of Kuala Lumpur. Not only does it look unsightly, it is also noxious to breath: contributing to tens of thousands of

³² See James Cotton, “The ‘Haze’ over Southeast Asia: Challenging the ASEAN Mode of Regional Engagement,” *Pacific Affairs* 72, no. 3 (1999): 331-35.

deaths per year.³³ It might seem that ASEAN would be a unique and capable platform to provide some sort of a solution to The Haze since this is exactly the sort of international crisis that ASEAN claims to be able to deal with. Yet for over the past 30-40 years, the Haze has just gotten worse. For its part, Indonesia struggles to police the huge land area under its control. Indeed, the Indonesian government usually starts pointing the blame at others, claiming that a lot of burning is also occurring in Malaysian Borneo and that the financial incentive for the ‘fire-makers’ comes via Malaysian and Singaporean-based palm oil companies.³⁴



Figure 5. The weird shrouded future of hazy Kuala Lumpur.

Just like the city itself, a solution to The Haze is not readily visible. In the future, as circumstances get weirder and weirder, The Haze prompts property developers to work in league with the city authorities to dismantle and then resurrect the businesses and government offices of Kuala Lumpur in the nearby Titiwangsa mountains. Here, above the hazy smog, corporate employees and bureaucrats are afforded cleaner and clearer air. However, within a few years it also becomes apparent that the isolation in the mountains—far off in the city’s distal areas—leads to a downturn in business and to inefficiencies in government. This eventually forces the businesses and bureaucracies to move back again into the central city. The towers then become suburban retreats for the wealthiest Kuala Lumpur residents. For a lucky few, the mountain towers serve as a fresh-air retreat. Most citizens, though, still suffer in the noxious air below as The Haze returns year after year unfixed.

³³ Dominic Faulder, “Air pollution: Asia’s deadliest public health crisis isn’t COVID,” *Nikkei Asia*, April 21, 2021, <https://asia.nikkei.com/Spotlight/The-Big-Story/Air-pollution-Asia-s-deadliest-public-health-crisis-isn-t-COVID>.

³⁴ See Oliver Pye and Jayati Bhattacharya, ed., *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective* (Singapore: Institute of Southeast Asian Studies, 2012).

THE WEIRD DANGEROUS FUTURE OF MANILA'S SEA

The Philippines is having trouble working out if China is a friend or foe. Successive leaders have been inflamed by China's aggressive moves to annex the tiny Philippines-claimed islands in the South China Sea only to turn around and aggressively court Chinese investment.³⁵ Other countries seek to reassure the Philippines that they will be supported in their defense of the islands, and the USA sends its passing warships nearby on a regular basis to remind everyone of this.³⁶

In the next few decades, these different forces work their way toward a rather dubious Sino-Philippines agreement; namely the Chinese investment will only be sustained if the Philippines gives away sovereignty of the island groups that China wishes to claim. Though unwritten, the agreement lingers on into the mid-21st century and then abruptly becomes a hotly disputed topic during a series of flawed elections when presidential candidates posture over who the greatest enemy is: China or the USA? China and the US, for their part, chime into the debate as would-be protectors of the Philippines by sending fleets of warships to Manila Bay.



Figure 6. The weird dangerous future of Manila's Sea.

³⁵ As discussed in Javid Heydarian, "Are China and the Philippines Agreeing to Share the South China Sea?," *The National Interest*, April 5, 2018, <https://nationalinterest.org/blog/the-buzz/are-china-the-philippines-agreeing-share-the-south-china-sea-25229>.

³⁶ See Ralph Jennings, "South China Sea Exercises Fortify Once Edgy US-Philippine Relations," *VOA*, July 13, 2018, <https://www.voanews.com/a/south-china-sea-exercises-us-philippines/4481076.html>.

There, they float staring across the waves at each other for many months, as pictured. Until, that is, in an ill-advised maneuver to gain a few meters of visibility, one of the ships gets entangled within the fleet of the other, colliding with an opposing warship, and so gouging great holes in both hulls. The spewing oil soon catches alight and flaming globs of oil wash up and down the beaches of Manilla for weeks on end whilst the noxious smoke envelops the entire city. As weird as this scenario is for Manilla, the world could count itself lucky to escape an all-out Pacific War.

THE WEIRD MILITARISTIC FUTURE OF NAPYIDAW IN FIELDS OF GREEN

In Myanmar, the armed forces—the Tatmadaw—long ruled the nation with an iron fist, from 1948 to 2015. During that time, they regularly murdered suspected dissidents, waged war against ethnic minorities, used child soldiers in their ranks, as well as slaves for their non-combatant labour.³⁷ From 2015 till January 2021, the Tatmadaw, took a backseat in Myanmar’s leadership, relinquishing their total control of the country to a democratically elected government whilst reserving for themselves a legal right to one third of seats in parliament. The Tatmadaw also retained a legal right to take the reins of government in times of ‘national emergency.’ Until 2021, it was touch and go as to whether the Tatmadaw would make a bid to overpower the democratic government in full once again—and sure enough, after they performed dismally in the 2020 general elections, the Tatmadaw strode into power via a military coup.³⁸ As a result, widespread protests have broken out across the nation and the Tatmadaw is cracking down on these in a brutal manner.³⁹ Although many nations and international agencies have condemned both the coup and the crackdown,⁴⁰ ASEAN has again been very reticent to confront the Myanmar military in any meaningful way; choosing instead to issue vague calls for a peaceful solution and inviting the coup leaders (but not the deposed civilian government or protesters)

³⁷ As outlined by Christina Fink, *Living Silence in Burma: Surviving under Military Rule* (London: Zed Books, 2009), and Shibani Mahtani, “U.N. report calls for Myanmar generals to be prosecuted for genocide, war crimes,” *Washington Post*, August 27, 2018, https://www.washingtonpost.com/world/un-report-calls-for-myanmar-generals-to-be-investigated-prosecuted-for-genocide-and-war-crimes/2018/08/27/fbf280a6-a9b5-11e8-8f4b-ae063e14538_story.html.

³⁸ As a matter of transparency, this paper was written before the February 2021 military coup and it suggested such a coup was on the horizon. However, this section then had to be adjusted somewhat to account for the real-world events of 2021 before going to press. For an introduction to the 2021 coup, see Alice Cuddy, “Myanmar coup: What is happening and why?” *BBC World*, April 1, 2021, <https://www.bbc.com/news/world-asia-55902070>.

³⁹ Helen Regen, “‘I Thought I Would Die.’ Myanmar Protesters Describe Torture They Suffered in Prison,” *CNN International*, April 28, 2021, <https://edition.cnn.com/2021/04/27/asia/myanmar-coup-detainees-torture-intl-hnk/index.html>.

⁴⁰ See, for example, “UN Security Council condemns Myanmar junta’s use of violence against peaceful protesters,” *France24*, April 2, 2021, <https://www.france24.com/en/asia-pacific/20210401-un-security-council-condemns-deadly-myanmar-crackdown-after-tense-deliberations>.

to regular ASEAN meetings in 2021.⁴¹

Before all these series of events in new Myanmar, in the early 2000s, the coastal city of Yangon was abandoned as the national capital and a new capital was founded from scratch in a swampy field in the middle of the country. This new capital, Napyidaw, is adorned with grand boulevards and massive multi-lane highways, as well as huge parks and golf courses and palaces—and a remarkably well-organised set of utilities (compared to the rest of Myanmar). The official reason for the move from Yangon to Naypyidaw, was that the old capital was too crowded and congested; offering little room for new government offices. Others, though, suggest it was largely a giant ‘vanity project’ by Than Shwe, the past head of the armed forces and the prime minister at the time.⁴²

The future of Napyidaw we envision here is of it as a military fortress city set sometime in the middle of the 21st century. By then, the battle between democracy and military dictatorship has raged on and off for dozens of years—the advantage being held by one side then the other in a deadly series of advances and retreats.



Figure 7. The weird militaristic future of Naypyidaw in fields of green.

⁴¹ Or so suggest the likes of Kanbawza Win, “ASEAN And Soutshetless Tatmadaw,” *Eurasia Review*, April 26, 2021, <https://www.eurasiareview.com/25042021-asean-and-soutshetless-tatmadaw-oped/>, and Ryan Aditya, “Indonesia slammed for inviting Myanmar coup leader to ASEAN,” *Asia-Pacific Review*, April 27, 2021, <https://asiapacificreport.nz/2021/04/27/indonesia-slammed-for-inviting-myanmar-coup-leader-to-asean/>.

⁴² As expressed by Matt Kennard and Claire Provost, “Burma’s bizarre capital: a super-sized slice of post-apocalypse suburbia,” *The Guardian*, March 19, 2015, <https://www.theguardian.com/cities/2015/mar/19/burmas-capital-naypyidaw-post-apocalypse-suburbia-highways-wifi>.

In this weird Naypyidaw of the future, in the 2050s, the military botches an attempt to regain full national power once more. During this episode, the military rapidly loses public support across the country and there is an effort to have the Patmadaw banned from public office, then disbanded altogether. With the Burmese public calling for a free civilian government, and with soldiers defecting in droves, the Patmadaw leadership decides to retreat to its safehold of fortress Naypyidaw. In the end, two alternate Myanmar governments co-exist at one time. The military control Napyidaw—reconstructing it as a vast walled city—whilst a civilian government controls the rest of Myanmar. For a while, those giant multi-lane highways of Napyidaw come in handy as airstrips for Chinese planes that arrive laden with important military supplies.⁴³ Yet, because of global weirding, an increase in monsoon rains rapidly degrades the transport infrastructure surrounding the new walled city, and all the Patmadaw can hope to do is to let their grand highways revert to crop fields so that they can feed the besieged soldiers inside.

THE WEIRD DRIVERLESS FUTURE OF A COLLAPSING PHNOM PENH

The tech world is abuzz with the dream of a future driven by AI-powered driverless cars.⁴⁴ However, though they are purported to be safer and greener, when you scratch through all their hyped-up promises and into their technical failings, the proffering of driverless cars for South East Asian settings may lead to nothing but chaos. For example, in this scenario, sometime a few decades into the future of a weirded-out Phnom Penh, the AI cannot predict the bizarre behaviour of Cambodian drivers who never obey road rules and who hack the AI in their cars in unpredictable and deadly ways to travel more quickly.

Unfortunately, because of the high-pressure salesmanship of western AI carmakers, and because of the endemic corruption in the ASEAN-based infrastructure projects, the corrupt leaders of Phnom Penh will use public assets to borrow huge amounts of money from overseas to fund a new build of massive, yet easily congested and shoddy roads for AI-cars. Within this future, Phnom Penh will be the same old city of crowded traffic snarl-ups and dangerous polluted streetways, all mixed in with haphazard, misunderstood traffic laws plus corrupt traffic enforcement practices. However, with driverless cars in abundance, road accidents may be even more common and air pollution might not be improved at all since everybody speeds around faster than ever pumping out evermore exhaust fumes. Not only this, these roads will be built quickly by nepotistic ‘cowboy firms’ upon ill-suited sites (such as uncompacted filled-in canals and streams). This means giant defects—

⁴³ For an introduction to the way China supported the Tatmadaw, see “Myanmar coup: China blocks UN condemnation as protest grows,” *BBC World*, Feb 3, 2021, <https://www.bbc.com/news/world-asia-55913947>.

⁴⁴ For an introduction, see Lawrence D. Burns and Christopher Shogun, *The Quest to Build a Driverless Car and How It Will Reshape Our World* (London: Ecco, 2018).

like this huge sinkhole envisaged here—will confound driverless cars with hazards they cannot predict or avoid.



Figure 8. The weird driverless future of a collapsing Phnom Penh.

Beyond this, for sure, the roadways and streets of Phnom Penh will only get worse as global weirding works to further induce unpredictable patterns of subsurface ground-failure via new and fast-changing patterns of extreme drought followed by extreme flooding.

THE WEIRD FLOATING FUTURE OF A SINGAPORE IN THE SKY

In future Singapore, a weirding planetary environment doesn't put a damper on the government's own prediction for techno-weirdness. In coming decades, Singapore's business elite is determined that sea-level rise will not interfere with commerce. In this Singapore of the future, the city floats above the coastally-eroded island of Singapore on a balloon-supported disc-shaped 'space station' type platform.



Figure 9. The weird floating future of a Singapore in the sky.

Currently a new wave of techno-megaprojects is sweeping through Singapore,⁴⁵ from the building of the world's largest seaport to the development of new eco-towns (one, for instance, is to be built upon incinerated garbage dumped at sea just off the coast). Though these projects are painted as 'green' in state-sponsored PR campaigns, it is likely that most will not stop global weirding. In fact, they are likely to contribute to it. As the first few decades of the 21st century come and go, the world's weirded-out climate may make the future quite horrific for many people living in South East Asia, with severe water restrictions, episodic food shortages, dramatic heatwaves, climate disaster events, and energy deficits becoming more and more common. The wealthiest Singaporeans will expect to be able to buy their way out of this global weirding crisis and to rise above it—literally—in their new floating city. The average worker, including the many immigrant workers in Singapore, must move elsewhere. Or else revolt.

THE WEIRD DAM FUTURE OF A FLOODED VIENTIANE

It has been noted that global weirding will have an enormous impact on the re-planning and upkeep of future infrastructure projects.⁴⁶ Under 'normal' times without global weirding, many largescale infrastructure projects come with some

⁴⁵ See Charissa Yong, "Mega building projects in S'pore bring golden opportunities," *Straits Times*, November 12, 2013, <https://www.asiaone.com/singapore/mega-building-projects-spore-bring-golden-opportunities>.

⁴⁶ See, for example, J Sweeney, "Command-and-control: Alternative futures of geoen지니어ing in an age of global weirding," *Futures* 57, (2014): 1-13.

unpredictable side-effects. However, in the era of global weirding, these side-effects may soar in both scale and risk. This is the case, for instance, with the many dams planned for construction upon the Mekong river. The Mekong river runs into Laos from China, passing one side of the Laotian capital of Vientiane before flowing all the way to a magnificent delta in Vietnam. The Mekong is set to become one of the most dammed rivers in the world as both China and Laos proceed to construct a whole series of hydroelectric/flood-control dams over a 500 km stretch of the river. The dams already built are currently decimating riverine communities⁴⁷ and destroying the riverine environment. In and of themselves, they are a disaster.⁴⁸ Here, in this weirded future Vientiane, though, things get even worse.



Figure 10. The weird dam future of a flooded Vientiane.

When a typhoon coming in from the Vietnamese coast hits a stubborn cold front in Laos, a record amount of rainfall pours down into the feeder rivers of the Mekong, swelling the main river to dangerous levels. As earth and mud move around beneath the water, eroding dam abutments, at least one of the hundreds of hastily built Chinese dams is sure to collapse. This first collapse will then send a torrent of water downstream that stresses out the next dam which will also probably collapse. A cascade of dam collapses then follows, including one not so far north of the Laotian capital. The city is subsequently overwhelmed by a deluge of water that then settles

⁴⁷ See F. Molle, ed., *Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance* (London: Routledge, 2014).

⁴⁸ As outlined by Tom Fawthrop, "Killing the Mekong, Dam by Dam," *The Diplomat*, November 28, 2016, <https://thediplomat.com/2016/11/killing-the-mekong-dam-by-dam/>.

into a long-term inundation; a formidable epoch of permanent flooding forged by global weirding.

CONCLUSION

Tolerance for weirdness often varies according to exposure. This likely means that environmentalists—who have been discussing catastrophic failure of modern civilization since the late 1960s—may be somewhat unstirred by the bizarre array of urban futures portrayed above. Yet our artistic and scientific outlook⁴⁹ portraying global weirding will instantly challenge the sensibilities of those who think urban settings and their social structures are, or can be made, technologically immune to catastrophe. We hope that the ‘artist’ mixture of art and science we have presented above acts to indicate this in a politico-ethical mode with reference to the social/industrial/military settings of South East Asia.

For decades, the ASEAN dream has fluttered about in the wind as a weak and battered symbol of South East Asian harmony. But really the ASEAN nations are not much harmonious. Or, if so, they exist in a state of forced or fake harmony. As we indicated above, their futures may be something of a nightmare. Of course, ASEAN is a mere sum of its parts and since the constituent governments of ASEAN do not care much about democracy or human rights, let alone environmental justice and ecology of the world, it is no wonder that the future of ASEAN’s capital cities is bound to be just as weird as the rest of the weirding world.

Our hope is not to present these weird scenarios merely as predictions of actual futures but as warnings regarding the fate of ASEAN’s cities. At least, they foretell what could be their potential or likely fate if the member states do not work for a more productive relationship with their own citizens to make planning more participative and sustainable. In light of this, and as precluded in the introduction, whilst the

⁴⁹ The global weirding concept, since it is ‘global’ and gains evidence from ecosystems science, might tend to celebrate or reify conceptual ideas of ‘global systems’ (such as the ‘global climatological system’ or the ‘global ecosystem’). The global weirding idea may also suggest that the weirding made by increased greenhouse gases is an upsetting of these systems. We, the authors, are not altogether convinced that global systems are much more than over-extended categories for an array of disparate (sometimes connected but often unconnected) flows, cycles and behaviours (see Alan Marshall, *The Unity of Nature*, London, Singapore: Imperial College Press and World Scientific, 2002). If this is the case, then the global weirding envisioned by global systems science is not weird science at all but just the continued existence of a reductionist systems science trying to gain intellectual status and popular appeal by aligning itself with the exotic themes and a/effectiveness of the ‘weirding’ label and with the scientific notions of systems science. So, in our view, if global weirding is to be weird, we would prefer to concentrate on the unique scenarios emerging unconnected from one another in their unique, though sometimes similar, socio-political and socio-ecological settings rather than the way the changing climate system of the world is affecting them. Thus, the claims contained in this conclusion must be modest—and we redirect any search for knowledge/predictions back to the particular geographies explored in the ten sections above.

physical and ecological world is undergoing a profound, abrupt, and extensive weirding, the entrenched and powerful conservative forces within the ten ASEAN nations seem to want to keep their social dynamics and national priorities exactly as they are—which, of course, aggravates the deleterious impacts of global weirding. It seems to us, then, that the best way to handle global weirding is through what would amount to a profound weirding of the current South East Asian socio-political context (in short, through radical social progress). Yet, we acknowledge, it would be historically weird for this type of weirding to happen and thus the ‘ASEAN Way’ manifests itself more as an obstacle than a pathway. ▣

BIBLIOGRAPHY

- Aditya, Ryan. “Indonesia slammed for inviting Myanmar coup leader to ASEAN.” *Asia-Pacific Review*, April 27, 2021. <https://asiapacificreport.nz/2021/04/27/indonesia-slammed-for-inviting-myanmar-coup-leader-to-asean/>.
- Archarya, Amitav. *ASEAN and Regional Order*. London: Routledge, 2021.
- Askandar, K. Hussein. “The Asian Way of Conflict Management,” *Asian Journal of Political Science* 10, no. 2 (2002).
- Beeson, Mark. “What’s the Point of ASEAN?” *Asia Times*, May 1, 2017. <https://asiatimes.com/2017/05/whats-point-asean/>.
- Bunnell, Fred, Laurie Kremsater and Ralph Wells. “Global weirding in British Columbia: Climate change and the habitat of terrestrial vertebrates,” *BC Journal of Ecosystems and Management* 12, no. 2 (2011): 21-39.
- Burns, Lawrence and Christopher Shogun. *The Quest to Build a Driverless Car*. London: Ecco, 2018.
- Cordes, Line. “How animals are coping with the global ‘weirding’ of the Earth’s seasons,” *The Conversation*, July 8, 2020. <https://theconversation.com/how-animals-are-coping-with-the-global-weirding-of-the-earths-seasons-140856>.
- Cotton, James. “The ‘Haze’ over Southeast Asia: Challenging the ASEAN Mode of Regional Engagement.” *Pacific Affairs* 72, no. 3 (1999): 331-35.
- Cuddy, Alice. “Myanmar coup: What is happening and why?” *BBC World*, April 1, 2021. <https://www.bbc.com/news/world-asia-55902070>.
- Dunne, Anthony and Fiona Raby. *Speculative Everything: Design, Fiction, and Social Dreaming*. Boston: MIT Press, 2013.
- Faulder, Dominic. “Air pollution: Asia’s deadliest public health crisis isn’t COVID,” *Nikkei Asia*, April 21, 2021. <https://asia.nikkei.com/Spotlight/The-Big-Story/Air-pollution-Asia-s-deadliest-public-health-crisis-isn-t-COVID>.
- Fawthrop, Tom. “Killing the Mekong, Dam by Dam,” *The Diplomat*, November 28, 2016. <https://thediplomat.com/2016/11/killing-the-mekong-dam-by-dam/>.
- Filho, Leal, ed. *Climate Change in the Asia-Pacific Region*. Berlin: Springer, 2015.
- Fink, Christina. *Living Silence in Burma: Surviving under Military Rule*. London: Zed Books, 2009.

-
- Friedman, Thomas. “Global Weirding is Here,” *New York Times*, Feb 17th edn (2010).
 - Goodell, Jeff. *The Water Will Come: Rising Seas, Sinking Cities, and the Remaking of the Civilized World*. California: Back Bay Books (2017).
 - Heydarian, Javad. “Are China and the Philippines Agreeing to Share the South China Sea?” *The National Interest*, April 5, 2018. <https://nationalinterest.org/blog/the-buzz/are-china-the-philippines-agreeing-share-the-south-china-sea-25229>.
 - Human Rights Watch. *Human Rights in Southeast Asia Briefing: Materials for the ASEAN-Australia Summit Sydney, Australia*. Sydney: March 17-18, 2018. asean_australia0318.
 - Hiskes, Jonathan. “Global weirding, East Coast snow storms, and Vancouver’s snow shortage,” *Grist*, February 11, 2010. <https://grist.org/article/2010-02-10-global-wierding-east-coast-snow-and-vancouver-s-snow-shortage/>.
 - Hutton, Mercedes. “Typhoon Mangkhut, ‘global weirding’ and how tourism contributes to climate change.” *South China Morning Post*, September 19, 2018. <https://www.scmp.com/magazines/post-magazine/travel/article/2164745/typhoon-mangkhut-global-weirding-and-how-tourism>.
 - Jennings, Ralph. “South China Sea Exercises Fortify Once Edgy US-Philippine Relations.” *VOA*, July 13, 2018. <https://www.voanews.com/a/south-china-sea-exercises-us-philippines/4481076.html>.
 - Kennard, Brian and Clair Provost. “Burma's bizarre capital: a super-sized slice of post-apocalypse suburbia.” *The Guardian*, March 19, 2015. <https://www.theguardian.com/cities/2015/mar/19/burmas-capital-naypyidaw-post-apocalypse-suburbia-highways-wifi>.
 - Kimmelman, Michael. “Jakarta is Sinking So Fast, It Could End Up Underwater.” *New York Times*, December 21, 2017. <https://www.nytimes.com/interactive/2017/12/21/world/asia/jakarta-sinking-climate.html>.
 - LeClair, Ernst. “Global Weirding’ Better Way To Describe Climate Change Than ‘Global Warming.’” February 24, 2015. <https://universalbri.wordpress.com/2015/02/24/scientist-global-weirding-better-way-to-describe-climate-change-than-global-warming/>.
 - Leviter, Lee. “The ASEAN Charter: ASEAN Failure or Member Failure.” *International Law and Politics* 43, (2010): 159-89.
 - Mahbubani, Kishore and Jeff Sng. *The ASEAN Miracle: Catalyst for Peace*. Singapore: National University of Singapore (2017).

- Mahtani, Steph. “U.N. report calls for Myanmar generals to be prosecuted for genocide, war crimes.” *Washington Post*, August 27, 2018. https://www.washingtonpost.com/world/un-report-calls-for-myanmar-generals-to-be-investigated-prosecuted-for-genocide-and-war-crimes/2018/08/27/fbf280a6-a9b5-11e8-8f4b-ae063e14538_story.html.
- Marshall, Alan. *The Unity of Nature: Wholeness and Disintegration in Ecology and Science*. London, Singapore: Imperial College and World Scientific, 2002.
- Mathez, Edmond and Jason Smerdon. *Climate Change: the Science of Global Warning and Our Energy Future*. New York: Columbia University Press, 2019.
- McDonald, Roderick, ed. *South East Asia and the ASEAN Economic Community*. Cham: Palgrave, 2020.
- McGaurin, Kaspar. “Indonesian giant sea wall project pseudo-solution for Jakarta Bay.” *SOMO*, April 21, 2017. <https://www.somo.nl/indonesian-giant-sea-wall-project-pseudo-solution-for-jakarta-bay/>.
- Mokkhasen, Sasiwan. “Friends of Chao Phraya Explain Why They Hate ‘Highway on the River.’” *Khaosad*, April 5, 2017. <https://www.khaosodenglish.com/news/bangkok/2017/04/05/diverse-groups-united-hatred-highway-river/>.
- Molle, Frederic, ed. *Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance*. London: Routledge, 2014.
- “Myanmar coup: China blocks UN condemnation as protest grows.” *BBC World*, February 3, 2021. <https://www.bbc.com/news/world-asia-55913947>.
- Natalegawa, Marty. *Does ASEAN matter?* Tel Aviv / Singapore: ISEAS – Yusof Ishak Institute, 2019.
- Nathapong, Sam. “Riverside Promenade to Move Ahead Without Environmental Impact Study.” *BK*, June 11, 2015. <https://bk.asia-city.com/city-living/news/riverside-promenade-moves-along-without-concerns-environmental-impact>.
- Pelkmans, Jacques. *The ASEAN Economic Community: A Conceptual Approach*. Cambridge: Cambridge University Press, 2016.
- Plait, Phil. “Global Weirding.” *Slate*, November 1, 2016. <https://slate.com/technology/2016/11/dr-katharine-hayhoe-presents-global-weirding.html>.
- Pye, Oliver and Jayati Bhattacharya, ed. *The Palm Oil Controversy in Southeast Asia: A Transnational Perspective*.” Singapore: Institute of Southeast Asian Studies, 2012.

-
- Regen, Helen. “‘I Thought of Would Die.’ Myanmar Protesters Describe Torture They Suffered in Prison.” *CNN International*, April 28, 2021. <https://edition.cnn.com/2021/04/27/asia/myanmar-coup-detainees-torture-intl-hnk/index.html>.
 - Roberts, Christopher B. *ASEAN Regionalism: Cooperation, Values and Institutionalisation*. London: Routledge, 2013.
 - Runyan, Christiane and Paulo D’odorico. *Global Deforestation*. Cambridge: Cambridge University Press, 2016.
 - Sattaburuth, Aekarach. “Bangkok could be submerged in 15 years.” *Bangkok Post*, July 22, 2015. <https://www.bangkokpost.com/learning/advanced/632520/bangkok-could-be-submerged-in-15-years>.
 - Shoumotoff, Alex. *The Wasting of Borneo: Dispatches from a Vanishing World*. New York: Beacon Press, 2017.
 - Sweeney, Johnny. “Command-and-control: Alternative futures of geoengineering in an age of global weirding.” *Futures* 57, (2014): 1-13.
 - Sweeney, Johnny. “Extreme Weirding,” *Critical Muslim* 17, no. 2 (2016): 39-46.
 - Tang, See Seng. “Whither the People in the ASEAN Community.” *Regions and Cohesion* 10, no. 3 (2020): 43-57.
 - Tharp, Bruce M. and Stephanie Tharp. *Discursive Design: Critical, Speculative, and Alternative Things*. Boston: MIT Press, 2019.
 - Taylor, Alan. “Worst Flooding in Decades Swamps Thailand.” *The Atlantic*, October 12, 2011. <https://www.theatlantic.com/photo/2011/10/worst-flooding-in-decades-swamps-thailand/100168/>.
 - Thompson, Stuart. “Food Production in an Age of Global Warming and Weirding,” *The Biochemist* 40, no. 4 (2018): 9-12.
 - “UN Security Council condemns Myanmar junta's use of violence against peaceful protesters.” *France24*, April 2, 2021. <https://www.france24.com/en/asia-pacific/20210401-un-security-council-condemns-deadly-myanmar-crackdown-after-tense-deliberations>.
 - “Urban Development in Bangkok—Development for Whom?” *Focus of the Global South*. January 11, 2017. <https://focusweb.org/urban-development-in-bangkok-development-for-whom/>.
 - Wadley, Reed. *Histories of the Borneo Environment*, Leiden: Brill (2005).

- Watts, Jonathan. “Indonesia announces site of capital city to replace sinking Jakarta.” *The Guardian*, August 29, 2019. <https://www.theguardian.com/world/2019/aug/26/indonesia-new-capital-city-borneo-forests-jakarta>.

- Weatherbee, David E. *ASEAN’s Half-Century*. New York: Rowman & Littlefield, 2019.

- Win, Kanbawza. “ASEAN And Soutshetless Tatmadaw.” *Eurasia Review*, April 26, 2021. <https://www.eurasiareview.com/25042021-asean-and-soutshetless-tatmadaw-oped/>.

- Yates, Robert. *Understanding ASEAN’s Role in the Asia-Pacific Order*. Cham: Palgrave Macmillan, 2020.

- Yong, Chunglin. “Mega building projects in S’pore bring golden opportunities.” *Straights Times*, November 12, 2013. <https://www.asiaone.com/singapore/mega-building-projects-spore-bring-golden-opportunities>.

- Zomber, Peter. “2019 a False dawn for Democracy in Thailand, Analysts Say.” *VoA*, December 28, 2019. https://www.voanews.com/a/east-asia-pacific_2019-false-dawn-democracy-thailand-analysts-say/6181749.html.