

ASEAN Focus

A BIMONTHLY PUBLICATION PROVIDING CONCISE ANALYSES AND PERSPECTIVES ON ASEAN MATTERS

The State of
Rakhine: Where
Is the Light?

Assessing ASEAN's
Role in Rakhine
State

Drivers of
Renewable Energy
in ASEAN

Is ASEAN Serious
About Nuclear
Power?

Peering into Istana
Negara Singapura's
Past and Present

Fuelling ASEAN's Energy Security



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Hoang Thi Ha

ASSISTANT PRODUCTION EDITOR

Anuthida Saelaow Qian

EDITORIAL COMMITTEE

Glenn Ong

Melinda Martinus

Pham Thi Phuong Thao

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ISEAS-Yusof Ishak Institute

30 Heng Mui Keng Terrace
Singapore 119614

Tel: (65) 6870 4509

Fax: (65) 6778 1735

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ISEAS-Yusof Ishak Institute (formerly Institute of Southeast Asian Studies) is an autonomous organisation established in 1968. It is a regional centre dedicated to the study of socio-political, security, and economic trends and developments in Southeast Asia and its wider geostrategic and economic environment. The Institute's research programmes are grouped under Regional Economic Studies (RES), Regional Social and Cultural Studies (RSCS) and Regional Strategic and Political Studies (RSPS). The Institute is also home to the ASEAN Studies Centre (ASC), the Temasek History Research Centre (THRC) and the Singapore APEC Study Centre.

Editorial Notes

The past two months have provided little respite for ASEAN and the international community as developments continue to unfold at a breakneck pace. September witnessed the outbreak of violent student protests in Indonesia in response to a proposed overhaul of several legislations concerning, among others, the government's internal security powers and the autonomy of the country's anti-corruption agency. These tensions served as the backdrop to the inauguration of President Joko Widodo on 19 October, and look set to linger in the background as he embarks on his second term in office. Further afield, as Beijing displayed its formidable military power during the 70th anniversary celebration of the People's Republic of China, the political crisis in Hong Kong grinds on and has become more violent, with protesters hardening their demands for democracy and autonomy.

On a more positive note, the recent progress in the US-China trade talks with the announcement of a phase-one deal is a welcoming development. Yet, uncertainty still looms large, and experience has shown that negotiations could break down. Regardless of this respite, it is feared that the world's two biggest economies are inexorably heading towards a "decoupling", given the increasing distrust and strategic rivalry between Washington and Beijing. Meanwhile, the final seal to the UK-EU divorce remains uncertain as the UK has requested for yet another extension of the 31 October deadline.

Amidst these dramatic developments, the global community renewed their commitment to address climate change – now considered "the defining issue of our time" – at the United Nations Climate Action Summit on 23 September. As Southeast Asia is presently – and increasingly – at the receiving end of climate change impacts, ASEAN has reaffirmed its pledge to join global climate action through concrete regional targets on increasing energy efficiency, reducing energy intensity, and expanding its renewable energy portfolio. In this context, this issue of *ASEANFocus* shines the *Spotlight* on energy security in ASEAN, and the region's efforts towards sustainable energy transition.

Mr. Beni Suryadi sets the stage for the *Spotlight* with an overview of the energy landscape in ASEAN. Next, Mr. Sharad Somani, Mr. Andrew Craig, and Ms. Anna Lebedeva look into the technology and policy enablers that will drive ASEAN towards a renewable energy future. Dr. Laurence Delina then argues that climatic and economic shifts necessitate new approaches and innovative solutions to ensure ASEAN's energy security. Ms. Denise Cheong and Ms. Nivedita S. examine the prospects of nuclear power plants and the state of nuclear governance in ASEAN. Finally, Dr. Christopher Len explores the geopolitical faultlines along hydropower developments in the Mekong River Basin and disputed oil and gas resources in the South China Sea. *ASEAN in Figures* rounds out the discussion by providing notable statistics on energy

consumption and supply capacity, environmental impacts of energy developments, and the potential of renewable energy in ASEAN.

Beyond energy security, Southeast Asia continues to be plagued by one of its greatest humanitarian disasters to date. The Rohingya crisis in Myanmar's Rakhine State has dragged on with untold human sufferings and serious security implications, but a resolution remains elusive. ASEAN's May 2019 Preliminary Needs Assessment for Repatriation might be a welcoming step to generate momentum, but progress has not been forthcoming. In this issue's *Analysis*, Dr. Kyaw Yin Hlaing and Ms. Dominique Samantha S. Dulay take stock of recent developments in this complex and long-running issue. Ms. Hoang Thi Ha and Mr. Glenn Ong argue that ASEAN must broaden its mandate on needs assessment for repatriation to leverage on the progress it has made. Dr. Nicholas Farrelly concludes the discussion with a sober analysis of what to expect in the near and medium term.

Notwithstanding the multitude of political and strategic dilemmas at hand, the region's diverse cultural scene offers an ambience of comfort and relief. In this issue's *Insider Views*, Mr. Ibrahim Hamid, Orchestra Leader of the Orkestra Melayu Singapura (OMS), delves into the intricacies of traditional Malay music and shares his hopes for the future of the craft in modern Singapore. Mr. Glenn Ong, in *Sights and Sounds*, then traverses through space and time of Singapore's presidential palace, the Istana, as this architectural marvel and historical edifice celebrates its 150th anniversary. Rounding out this journey, Ms. Anuthida Saelaow Qian surveys the musical landscape of the Malay Archipelago as she follows the hypnotic melodies of gamelan.

We would also like to thank our generous contributors, designers, printers, and ISEAS colleagues for their longstanding and continuing support toward *ASEANFocus* as we celebrate the publication of its 30th issue. Last but not least, we are delighted to welcome Ms. Melinda Martinus into our ASC family. Ms. Martinus joins us as Lead Researcher (Socio-Cultural Affairs). 🍷

The State of Rakhine: Where Is the Light?

Kyaw Yin Hlaing and **Dominique Samantha S. Dulay** share the latest updates on the deep-rooted problems of Rakhine.

The situation in Rakhine State, Myanmar, is one of the most persistent and critical problems facing the country today, and yet the solution is far from straightforward.

Large-scale violence erupted in Rakhine State in October 2012, between the Buddhist Rakhine ethnic community and the minority Muslims. The resulting mass displacement necessitated the establishment of formal internally displaced persons (IDP) camps across central and southern Rakhine, of which 18 Muslim camps (accommodating over 110,000 persons) currently remain in Sittwe, Pauktaw, Myebon, and Kyaukphyu townships. As of 30 September 2019, the Myanmar government announced the finalisation of its National Strategy on Closure of IDP Camps. Although no details on implementation have been released yet, this Strategy is expected to introduce durable solutions for IDPs as these remaining long-term camps are to be closed.

Following the attack by the Arakan Rohingya Salvation Army (ARSA) which was denounced as a terrorist organisation by the Myanmar government, and the subsequent military clearance operations in 2017, approximately 7,000 Rohingya were displaced within Maungdaw District and took shelter with resident family members or in rented or abandoned homes. These IDPs received little government assistance, while around 20% claimed irregular distribution of aid from primarily non-governmental organisations. Similar to their counterparts

in Cox's Bazar, Bangladesh, none of these IDPs have been able to return to their respective villages in Buthidaung, Maungdaw, and Rathedaung townships.

Meanwhile, the Muslim refugees across the border in Bangladesh face additional security concerns, including forceful pressure by their peers to reject Myanmar's National Verification Card (NVC). They also refuse to return to Myanmar until the Rohingya are granted citizenship. Threats by violent parties in the camps are among the reasons behind delayed repatriation efforts by both Bangladesh and Myanmar, though over 200 Hindu and Rohingya refugees have since returned to the country on their own initiative.

The issue of citizenship in Myanmar, and especially for the Rohingya, is a complex one. The current government has been consistent in its stance that anyone wishing to claim citizenship in Myanmar must undergo its citizenship verification process. However, the process has been slow-going and recent Rohingya applicants complain of being granted only naturalised citizenship, of which there is the perception that they are subject to more restrictions than full citizens, and are at greater risk of having their citizenship revoked in the future.

Moreover, the Rohingya dislike the fact that they are required to accept the NVC before going through the citizenship verification process. They had received similar assurances from the previous administration that they



would be able to acquire citizenship if they accepted the ‘white cards’, but these promises did not materialise. This situation is compounded by the issue of ethnic identity, wherein the Rohingya are officially described as ‘Bengali’ in their application form (though notably not on the NVCs). Rohingya activists argue that this designation assumes they are foreigners to their native land and therefore reject both the process and the NVC on principle. It should be noted that the Rohingya are not the only ones being made to go through the citizenship verification process: the ethnic Kaman Muslims in Rakhine as well as other groups across Myanmar face similar difficulties and concerns regarding citizenship although most of them are listed among the country’s official ethnic groups.

Another obstacle to any durable form of return, relocation, or resettlement is the ongoing conflict between the military and the Rakhine ethnic armed organisation Arakan Army (AA). “Safe and voluntary return” is the key phrase in repatriation efforts, but the situation in Rakhine has not been safe for its current residents, let alone for potential returnees. Since November 2018, an additional 64,000 persons have been displaced by the over 300 clashes spanning across Buthidaung township in the north to Ann township in the lower part of central Rakhine. An estimated 110 persons have been injured and 69 persons killed by stray fire between the two parties, and a total of 46 civilians have been affected by landmines. The suspension of internet access in conflict-affected townships since June 2019 has hindered the distribution of humanitarian aid, yet not made a significant impact on the incidence of landmines and other explosives (in relation to allegations that the AA and its supporters had been using wireless communication technologies to remotely detonate bombs).

On the other hand, restrictions to communication as well as harsher sentencing of persons suspected of involvement with the AA have reportedly had favorable consequences for the military, including by limiting the more active and violent support by sympathisers to the AA’s cause of confederation for the ethnic Rakhine. However, there has also been a shift in public opinion from anti-Muslim sentiment to increasingly anti-government, anti-military, and anti-Bamar – the ethnic majority in Myanmar. This is not to say that popular impressions of Muslims, especially the Rohingya, have improved; local social cohesion initiatives have allowed different ethnic groups to interact in northern Rakhine State, but non-Rohingya communities still reject the idea of cohabitating with the Rohingya.

In this context, China has taken a hands-on approach to mediating peace between the Myanmar government and military and a significant group of ethnic armed organisations, not just the AA. Beijing is encouraging concrete action from both Myanmar and Bangladesh to ensure the repatriation of refugees. The UN (under its tripartite Memorandum of Understanding with the Myanmar Government) and Japan have also offered financial and technical support in repatriation and resettlement efforts. In contrast, the US, the UK, and



other Western countries have focused on engaging the International Criminal Court in order to put pressure on Myanmar to take accountability for the violence that led to the 2017 refugee crisis. Finally, despite mixed responses from individual Southeast Asian countries, ASEAN as a regional organisation has carved for itself the role of providing humanitarian and disaster-related assistance.

Although limited in its influence on the complex issues of Rakhine State, ASEAN is nonetheless uniquely positioned to maintain engagement with Myanmar and ensure that key problems in security, education, livelihood, and healthcare for all displaced persons and refugees are addressed in any efforts towards sustainable repatriation. ASEAN is also well-placed to serve as a primary mediator between Myanmar and the wider international community, and ensure that mutually agreed standards for repatriation and development benefit the primary stakeholders, namely the civilian population, the displaced, and the refugees. Moving forward, ASEAN must take deliberate and concrete steps towards the resolution of this protracted crisis. Its ability to effectively address one of the world’s greatest modern refugee crises is key to proving its relevance as Southeast Asia’s key regional institution and boosting its credibility and influence on the global stage. 🏠

Dr. Kyaw Yin Hlaing is Director of the Center for Diversity and National Harmony (CDNH), and **Ms. Dominique Samantha S. Dulay** is Program Manager of the Early Warning Early Response Program (EWERP) at CDNH.

Walking on a Tightrope: Assessing ASEAN's Role in Rakhine State

Hoang Thi Ha and Glenn Ong examine ASEAN's preliminary needs assessment for repatriation in Rakhine State, and what it holds for the future of ASEAN's involvement.



AHA Centre Executive Director Adelina Kamal addressing the 2nd High-Level Coordination Meeting on the Rakhine situation in May 2019

ASEAN Secretariat

The nature and extent of ASEAN's engagement with the humanitarian crisis in Myanmar's Rakhine State has come under intense scrutiny in recent months. At the centre of this controversy lies a Preliminary Needs Assessment for Repatriation report by the ASEAN-Emergency Response and Assessment Team (ASEAN-ERAT), completed in May 2019. It is important to rise above the discordant voices of either criticism or defence to arrive at a balanced assessment of the promises and limitations of this needs assessment exercise, so as to chart the future of ASEAN's engagement with the Rohingya crisis. Doing so requires a balance between calm reasoning and sincere empathy.

For starters, some criticisms of the assessment are misplaced as they stem from a misinterpretation or over-expectation of ASEAN-ERAT's mandate which was prescribed in the terms of reference (TOR) approved by both ASEAN and the Myanmar government. It is entirely beyond the scope of ASEAN-ERAT to investigate allegations of human rights abuses by the Myanmar military. Indeed, it goes against the very fabric of the "ASEAN Way" to do so. Second, it is prudent for ASEAN to avoid grandstanding on the matter of nomenclature by not addressing the displaced persons as "Rohingyas"

or "Bengalis", given the political and legal weight that accompanies such terminologies. Due respect should also be accorded to the assessment team, which – given the constraints in both the TOR and their physical access on the ground – had to navigate a fine line in an emotionally charged and deeply divisive terrain. Their sensitive approach stems from reasonable concerns that their actions and words may be mistaken for transgressions that might hinder ASEAN's future engagements on this subject.

Both Myanmar and ASEAN have their respective rationales to pursue the needs assessment, with an appreciation of its pros and cons. On one hand, the conduct of this assessment allowed Myanmar to showcase its openness in engaging regional intervention, thereby deflating international criticism of its inaction. On the other, the assessment helped ASEAN project a more visible role on this issue amidst increased international scrutiny and appeal for regional action.

Barely three years ago, the Rakhine crisis remained off ASEAN's official agenda until ASEAN Foreign Ministers were briefed by Myanmar State Counsellor Aung San Suu Kyi on the situation in their informal meeting in



December 2016. Since then, ASEAN's engagement has evolved steadily to include visits by the ASEAN Secretary-General to Myanmar, consultations among the ASEAN Secretariat, the AHA Centre, and relevant stakeholders in Myanmar, as well as the dispatch of the needs assessment team on the ground. In July 2019, ASEAN-ERAT also joined Myanmar officials in their visit to refugee camps in Cox's Bazar to clarify the repatriation process. To consolidate ASEAN's presence and involvement, a follow-up mechanism involving the ASEAN Secretariat and relevant ASEAN entities may be established in due time. In turn, this mechanism could also open new avenues for collaboration with ASEAN's Dialogue Partners and other countries and agencies, especially in the provision of basic services for returnees. Hence, this needs assessment is one node along a broader upward trajectory of ASEAN's engagement on the Rohingya crisis over the past few years. It is an important entry point for future engagements, no matter how modest and qualified the scope of involvement may be.

Yet, while ASEAN's progress deserves recognition, one could argue that ASEAN could have pushed the envelope further in this exercise. The preliminary needs assessment amounts to a simplified technical approach to the complicated political issue regarding the nationality and citizenship status of the Rohingyas in Myanmar. While resolving this longstanding political problem is well beyond ASEAN's competence and capacity, ASEAN should have leveraged its involvement in the needs

assessment to exert a more robust voice that goes beyond the technicalities of the repatriation process. Although AHA Centre Executive Director Adelina Kamal explained that for now, ASEAN "can only recommend how to improve the repatriation process – registration, improving facilities, providing refugee treatment such as how they can get medical access", one cannot neatly delineate the technical minutiae of repatriation from the requisite conditions for that process to happen in the first place. It is pointless to discuss physical and procedural matters when the fundamental question of recognition and guarantee for a safe return is not squarely addressed. Where there is hardly any willing returnee, focusing on the capacity of the reception and transit centres appears to be putting the cart before the horse.

To make meaningful and constructive progress, a credible and comprehensive needs assessment must henceforth adopt a broader definition of "needs" to address the requisite conditions for voluntary and sustainable repatriation, rather than be limited to technical and procedural details. It should reiterate "the need to find a comprehensive and durable solution to address the root causes of the conflict and to create a conducive environment so that the affected communities can rebuild their lives", as declared at the 34th ASEAN Summit this June. At the very least, the needs assessment should highlight the urgency of following up on the recommendations of the Advisory Commission on Rakhine State, which were tabled in 2017.

ASEAN-ERAT should also adopt a more comprehensive approach by building on its inclusive consultation framework. While the preliminary needs assessment was based on consultations with diverse stakeholders – central and local authorities as well as communities of different faiths and races in Rakhine – it lumped Muslim, Rakhine, and other ethno-religious communities together without identifying their respective concerns, some of which may be "mutually exclusive". This has blurred the more complex realities on the ground. The concerns of the Muslim communities, especially those in the Internally Displaced Person (IDP) camps, should be fleshed out, as those who fled to Bangladesh would look to the experiences of those who remain to decide whether to return. It is, however, unclear whether ASEAN-ERAT had access to them. A further limitation that can be



improved upon is the absence of consultations with the displaced people in Bangladesh – the very subjects of the repatriation process. A credible assessment must duly account for the perspectives of the Muslim communities from both sides of the border.

Finally, ASEAN cannot be seen to be simply accepting the Myanmar government’s narratives at face value. For example, there are hidden pitfalls in the registration process, such as the fear among potential returnees that accepting the National Verification Cards (NVCs) would amount to a concession that they are “foreigners”, thereby jeopardising their chances of acquiring citizenship. Furthermore, notwithstanding the legitimate need for security forces to protect those in Rakhine from militant insurgents, one must question whether such security measures are in place to ensure the safety of the returnees or to enforce restrictions to their freedom of movement.

Since the recent exercise was merely preliminary, there is room for a future comprehensive needs assessment with a more encompassing appraisal and stronger recommendations. The timing of it, however, may be problematic, since it will reportedly be undertaken only after the first few thousand displaced persons have returned, if they return at all. Another pertinent, more crucial, problem remains: Regardless of these existing and future mechanisms, the situation has remained unchanged – some 600,000 Rohingyas in Rakhine continue to be subjected to persecution, according to a recent report by the UNHCR-mandated independent international fact-finding mission; and there are hardly any voluntary returnees among the nearly one million Rohingyas stranded in Bangladesh. While the Myanmar government and well-meaning institutions are busy establishing advisory and investigative commissions,



ASEAN Secretary-General Dato Lim Jock Hoi giving a briefing on the Preliminary Needs Assessment in Rakhine State in June 2019

a massive humanitarian crisis drags on with no end in sight and its severe security implications are lying in wait for the whole region. The ASEAN-ERAT mission should not be criticised for what it was not meant to do, but ASEAN must also take a hard and honest look at whether it is doing enough. ❏

Ms. Hoang Thi Ha is Lead Researcher (Political & Security Affairs) and **Mr. Glenn Ong** is Research Officer at the ASEAN Studies Centre, ISEAS-Yusof Ishak Institute.



ASEAN Secretary-General Dato Lim Jock Hoi's visit to Rakhine in December 2018

What's Next for the Rohingya?

Nicholas Farrelly unpacks the political and security dynamics in Myanmar to shine a light on the Rohingya's bleak future.



Suphaphong Eiamvorasombat@Shutterstock

Rohingya waiting for donations in Sittwe, Myanmar

It has been more than two years since the exodus of Rohingya from northern Myanmar's Rakhine State to Bangladesh. Almost a million others have settled, perhaps for good, on the steep and muddy terrain outside Cox's Bazar.

To understand what might happen next for the Rohingya and Myanmar, it is worth beginning with the politics of Muslim exclusion. The National League for Democracy (NLD) has a phenomenal history of winning elections but an equally poor record of accommodating or representing the interests of Myanmar's Muslim community. That record is explained, to a large extent, by prevailing social attitudes in Myanmar. There are few votes – and the potential for significant ballot box backlash – for any politician perceived to be too comfortable or cosy with Islam.

While Muslims have lived in Myanmar for centuries, and one small group, the Kaman, even merit official “national race” status, they have never been fully welcomed. Colonial history – where migrants from the sub-continent filled key administrative, internal security and commercial roles – is a further part of this complex picture. Yet anti-Muslim antagonism often draws its simplistic potency from more brazenly xenophobic sources.

It should be noted that in the lead-up to the 2015 general election, viral memes presenting Aung San Suu Kyi herself as a closet Muslim circulated online to discredit her hugely

popular campaign for change. In response to such potential vulnerabilities, and whatever their personal views, NLD strategists have sought to ensure enough alignment with the chauvinist perspectives that predominate in many temples, army barracks, and political meetings.

Such chauvinism shows no sign of abating in the face of condemnation from near or far. Local voices defending traditions of multi-faith inclusion and pluralism are, in almost all cases, drowned out by the unapologetic rejection of the very notion of the Rohingya on Myanmar soil. Foreign human rights and humanitarian organisations continue to highlight alleged atrocities committed against the Rohingya, yet the Myanmar media and the local analytical community often decry this as “fake news”.

Myanmar's millions of Muslims must then watch and wait, seeking to find a more secure footing in the wake of the anti-Rohingya violence. Those with urban economic muscle and the right kind of paperwork have a better chance of hunkering down, while weaker groups and individuals, especially those in rural areas of Rakhine State, continue to face grave dangers.

So, what will happen to the Rohingya now in Bangladesh? Can they return to Myanmar?

The entrenchment of difficult humanitarian conditions on the Bangladesh side of the border now means that a generation of Rohingya children and youth are susceptible

to exploitation by human traffickers and religious extremists. Unfortunately, for the displaced Rohingya and security planners in Naypyitaw, the Rakhine State's political environment has, since 2017, deteriorated such that the repatriation of large numbers of Rohingya from Bangladesh is very unlikely any time soon. Calls for a process of repatriation predicated on dignity and respect are largely ignored by Myanmar officials, who will pay a steep political price if they are seen to be going easy on the Rohingya.

At present, there are at least three obstacles preventing a swift resolution of the crisis. First, there is the undeniable and unwavering popularity of anti-Rohingya sentiment. Very few Myanmar citizens, whatever their own ethnic or religious background, want to invest in those that are deemed almost universally to be foreign interlopers.

Second, the newly red-hot conflict between Myanmar security forces and the Arakan Army, a formidable Buddhist militia operating in northern Rakhine State, has become a pressing concern. Holding contested ground against these secessionist guerrillas, especially when they are killing significant numbers of government troops, is no small feat.

Third, a cascade of new strategic dilemmas, especially in the Shan and Kachin States, ensures that the situation of the Rohingya is de-prioritised even further. For example, the attack on the Defence Services Technological Academy in Pyin Oo Lwin just outside of Mandalay on August 2019 reminded everyone of the capacity for unpredictable violence across the Myanmar terrain.

In all fairness, therefore, Aung San Suu Kyi and her backers remain anxious that the military could use a fresh security crisis as the pretext for seizing greater control of the Naypyitaw machinery. This would constitute a setback for hard-won pro-democracy reforms in Myanmar. It is also still true that she has limited capacity to influence security decision-making among the uniformed elites. To her own reputational detriment, Aung San Suu Kyi has

sought to avoid any opportunity for the military to paint the NLD as a “pro-Rohingya” party.

Under these conditions, there is little evidence that many of the displaced Rohingya will escape their traumatic fate on the lowest rung of Bangladesh's unforgiving economic and social pecking order. Their stories will deserve much more attention.

Back in Naypyitaw, Myanmar's realists have already made the calculation that few foreigners care enough to exert real pressure over the 2017 anti-Rohingya violence or the ongoing humanitarian crisis. For the NLD and Myanmar's military, the key priority is and has always been to ensure the maintenance of Myanmar's sovereignty in its unruly borderlands and to stop centrifugal impulses from getting out of hand.

In that respect, the Rohingya are one sad story among many, and one for which the Myanmar leadership has correctly gambled there will be only symbolic consequences. Aung San Suu Kyi's primary focus is on the twin engines of political power and familial destiny that she hopes will propel the country to the 2020 election and beyond. 🇲🇲

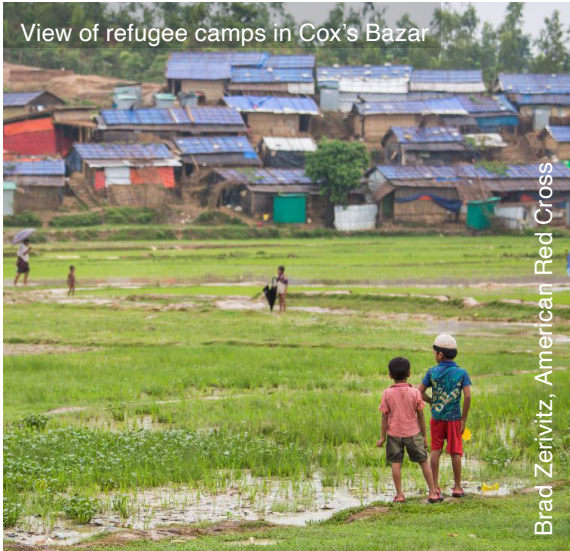
Dr. Nicholas Farrelly is an Associate Dean in the College of Asia and the Pacific at the Australian National University. From 2015-2018 he was founding Director of the ANU Myanmar Research Centre.



Rohingya children in Cox's Bazar

Anna Dubuis, DFID UK

View of refugee camps in Cox's Bazar



Brad Zerivitz, American Red Cross



A Rohingya girl walks along makeshift dwellings in Cox's Bazar

Monammad Tauheed@Flickr



Distribution of shelter upgrade kits in Cox's Bazar before the monsoon season

Lynette Nyman, IFRC



Rohingya children pumping water in Cox's Bazar

Allison Joyce, UN Women



Reception area at the Women's Center in Balukhali refugee camp in Cox's Bazar

Allison Joyce, UN Women

Rohingya camps in Cox's Bazar



Monammad Tauheed@Flickr

ASEAN Energy Sector: Challenges and Prospects

Beni Suryadi sketches the energy landscape in ASEAN with four broad strokes on security, accessibility, affordability, and sustainability.

ASEAN is an economic tiger on the rise. Being the 3rd largest economy in Asia and 5th largest economy in the world, ASEAN as a region is gearing up to enhance the living standard of its over 650 million inhabitants. The region experienced tremendous GDP expansion of 450% from 2000 to 2017, and attracted US\$154.7 billion of foreign direct investment (FDI) inflows in 2018, according to statistics from the ASEAN Secretariat and the International Monetary Fund (IMF), respectively. The region could maintain this growth and increase productivity with the support of the energy sector which is expanding continuously.

According to the ASEAN Centre for Energy (ACE), ASEAN member states' energy demand reached 417.3 Mtoe in 2017, an increase of 24.7% compared to 2010. The dominant sectors for energy consumption are industry, transport, and commercial activities. It is expected that this energy demand will continue to grow by 2.4 times by 2040, which reflects the urbanisation trend and the shift from agrarian to more industrialised economies in ASEAN. With regard to energy supply, ASEAN's energy mix in 2017 was still dominated by conventional fuels, namely oil (38.2%), gas (23.2%), and coal (22.3%). The share of renewable energy, despite its moderate growth over time, remained modest at 14.3%.

While the share of oil in the mix has shown a declining trend, coal is becoming more predominant. This often puts ASEAN under the global spotlight regarding its over-reliance on coal. ASEAN is currently the region with the fastest growing demand for coal in the world. Indonesia, Malaysia, Thailand, the Philippines, and Vietnam – the top five energy giants within ASEAN – account for more than 90% of the region's energy share. As regards electricity generation, the share of gas and coal still prevailed at approximately 68.1% out of ASEAN's total installed capacity of 235.4 GW in 2017, while hydropower came third with the installed capacity of 46 GW.

The ASEAN energy scene is faced with many challenges. First, it is an uphill task to ensure sufficient energy supply to meet the rapidly increasing demands of the region's growing populations and economies. ASEAN member states tend to over-rely on their abundant reserves of some energy resources, hence overlooking the importance of diversifying energy sources to ensure energy security. For instance, mainland Southeast Asian countries such as Laos, Cambodia, and Myanmar have been too reliant



on hydropower development from the Mekong River, while Indonesia and Vietnam as coal-rich countries massively depend on coal for electricity generation. Such overdependence had not been perceived as a serious problem until very recently. As devastating environmental and climate change impacts such as prolonged droughts and severe air pollution strike the region with increased frequency and intensity, the urgency to start diversifying the energy mix from various resources has increased.

Second, energy accessibility may create another stumbling block to further regional economic growth. Even with the impressive achievement of several ASEAN member states like Indonesia and Vietnam in advancing their electrification ratios in the last decade, the expansion of electricity access remains a challenge, especially in ASEAN's rural communities. It is estimated that around 70 million people in the region are without access to

electricity. Extending energy access to all is a multi-layered challenge for ASEAN, given the different and diverse geographical characteristics of its member states. Indonesia and the Philippines as archipelagic countries certainly encounter far more obstacles to reach their thousands of islands and rural communities, and the possibility of utilising multilateral power interconnections from neighbouring countries is limited.

Providing affordable energy adds another obstacle, which manifests itself in different sets of challenges. For example, electricity prices in Cambodia, Singapore, and the Philippines are the highest in ASEAN, which has a negative impact on their economic activities. In other member states like Indonesia, ensuring the affordability of energy through fuel subsidy has created a dilemma for the government. Inefficient and unwise subsidy allocation can either burden the country's budget or set an unfair playing field for renewable energy to compete with the conventional fuels.

Increasing concerns over sustainability have also put pressure on ASEAN's energy sector to start incorporating climate change effects and environmental impacts in energy generation. ASEAN member states are vulnerable to climate-disaster risks. Higher sea-level rise causing floods and severe typhoons, as well as prolonged droughts and forest fires, have cost ASEAN dearly in terms of both economic losses and human casualties. As all 10 ASEAN member states have pledged their climate commitments through the National Determined Contributions (NDCs) under the Paris Agreement, the energy sector in ASEAN needs to accelerate decarbonisation by transitioning to greener and cleaner options. As a start, ASEAN should pursue a concrete collaborative effort to minimise the environmental effect and establish a standard monitoring mechanism of emissions from the energy sector.

It is therefore very timely for ASEAN to step up the joint efforts in addressing the four main agendas of *Security, Accessibility, Affordability, and Sustainability* under the guidance of the ASEAN Plan of Action on Energy Cooperation (APAEC) 2016-2025 as a blueprint. The APAEC has set the ambitious target of increasing the share of renewable energy to 23% in ASEAN's energy mix and reducing the energy intensity by 30% from the 2005 level by 2025. Achieving these targets should be a priority agenda of the region's energy sector.

The recent 37th ASEAN Ministers on Energy Meeting in Bangkok in September emphasised the importance of enhancing partnerships and innovations towards sustainable development and energy security. In this connection, establishing a strong multilateral power trading network through the ASEAN Power Grid (APG) is one of the future milestones that ASEAN aims to achieve. Well-established power interconnections within ASEAN, together with a massive penetration of renewable energy, would offer a silver bullet to tackle the four issues of security, accessibility, affordability and sustainability all at once. In 2019, ASEAN has also embarked on a regional initiative on the energy-climate change nexus

Myanmar pupils study by candlelight



Hong Sar@World Bank

which aims to improve the coherence between energy and climate policies in ASEAN, and contribute to more climate-friendly development in the energy sector.

Despite the region's reliance on fossil fuels in the present and immediate future, the energy landscape in ASEAN will move towards transition, accelerated by technological innovations. Large-scale installations of solar and wind power have started in Thailand, Vietnam, Malaysia, and the Philippines. They are expected to scale up across the region in the near future if conducive government policies and investment frameworks are in place, combined with cost plunges in generating renewable energy. Innovative technologies, together with supportive policies by ASEAN member governments, are also driving a cleaner transformation in the transport sector as increasing intake of electric vehicles (EV) and higher utilisation of domestic biodiesel are likely to happen soon at different rates in the region.

In addition, blockchain and digitalisation will provide potential platforms to accommodate energy disruptions and enable more efficient energy systems, allowing the region to create more reliable interconnectivity networks. These technologies are also shifting the paradigm of the energy market as they allow energy decentralisation and greater participation of communities in energy trading. New technology trends are expected to bring about systemic changes to the current energy scene, which would encourage ASEAN and its member states to adopt flexible and forward-looking energy policies that can adapt to and ride upon disruptions. ASEAN should soon join the front-runners in climate action to prove that pursuing growth while decarbonising the economy is possible, and advance partnerships with the global community to ensure sustainability for present and future generations. 🌱

Mr. Beni Suryadi is Manager of Policy Research and Analytics (PRA) Programme at the ASEAN Centre for Energy (ACE) based in Jakarta.

Drivers of Renewable Energy in ASEAN

Sharad Somani, Andrew Craig, and Anna Lebedeva argue that technology and policy enablers will drive ASEAN towards a renewable energy future.

As a fast growing region of over 650 million people with a rising middle class, rapid urbanisation and increasing energy intensity of the economies, ASEAN needs to enhance and diversify the energy sources. Fossil fuel (coal and gas) has traditionally dominated as the major source of energy due to their easy availability in the region, accounting for about 70% of ASEAN’s total electricity generation. However, the dwindling domestic sources of fossil fuel have led countries in the region to look for alternate and affordable sources of energy. Furthermore, sustainable development has become a top priority in the global agenda. The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, identified 17 goals for a sustainable future, one of which is affordable and clean energy.

Thanks to a confluence of technological and policy enablers, clean energy has become an important part of the region’s energy mix over the last almost a decade. Renewable energy (RE) comprising hydro and geothermal accounted for 19% of energy generation in 2018, and about 5% has been contributed by solar and wind plants. ASEAN member states have set the target to have 23% of the total power generated by RE sources by 2025. There are four factors that could make this target achievable.

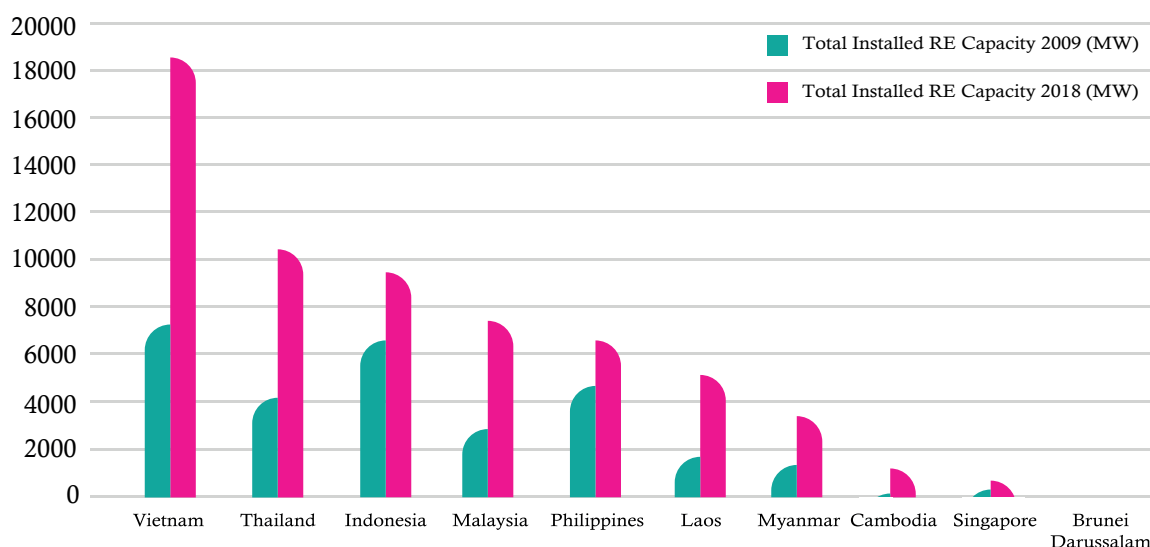
Grid Parity – Renewables Are Increasingly Becoming Mainstream

The increasing attractiveness of renewable energy on

account of technological advancements and conducive policy frameworks could enable renewable energy to achieve grid parity in most countries very soon. This will be a key factor instrumental in achieving ASEAN’s 23% RE target. As an example, the tariffs for solar PV projects have dropped to grid parity in various countries like the United Arab Emirates (US2.9 cents), India (US3.5 cents) and Malaysia (US4.2 cents – in LSS3). Given these attractive tariffs, more solar power will be sourced in countries like Indonesia and Vietnam amongst others. Solar power offers a modular solution to help meet the energy requirements of remote parts in the country, thereby ensuring fast electrification nationwide. This bodes well for around 70 million people in ASEAN without access to reliable electricity supply. Hybrid renewables (RE with traditional power) in mini/micro-grids can catalyse rapid electrification in the region, thereby playing an important role in achieving the Sustainable Development Goals (SDG).

Grid Stability – Addressing the Intermittency Challenge

Ensuring grid stability would be an important challenge due to the intermittent nature of RE supply coupled with the tropical climate conditions. This issue needs to be addressed proactively by supplementing RE with storage technologies like pump storage and battery storage. This, together with grid strengthening and grid integration, would be critical pre-requisites to achieve the 23% RE target. The falling prices of battery storage and its proven



Progress on RE deployment by country, 2009-2018



technical viability in some RE projects (for example, the 100 MW lithium ion battery installed in South Australia) give hope that more such projects would come to fruition in ASEAN, offering the much needed stability to the grid.

Grid Sustainability – Demand for Cleaner and Greener Power

The development of technology companies as well as the increasing importance of environmental, social, and governance (ESG) factors in corporate agendas provide strong enablers for the growth of clean power. Various proposals for green data centres are encouraging governments to proactively think of deploying renewable energy as an economic imperative to attract foreign investment.

For instance, the RE100 initiative led by the Climate Group in partnership with CDP, as part of the We Mean Business coalition, is a global corporate leadership initiative bringing together influential businesses committed to 100% renewable electricity. These include major companies committed to sourcing 100% renewable electricity globally in the shortest possible timeline (by 2050 at the latest). This provides an interesting buy-side imperative for governments to entrench RE as part of their master plan. Facebook's data centre under development in Singapore which will be powered 100% by RE is a case in point. Singapore has been promoting rooftop and floating solar to increase the share of RE in its national grid. A sustainable grid is both in line with the SDG and also an economic imperative to attract leading corporates into the country.

Grid Financing – Innovative and Green Funding Options

Fossil fuel-based financing options are dwindling as most banks are shying away from funding new coal-fired projects just as building liquefied natural gas (LNG) terminals is becoming more expensive. Against this backdrop, the setting-up of renewable energy or green funds is acting as a catalyst to promote renewable energy projects. The total quantum of funds available from multilaterals and responsible investors is on the rise. For example, the Green Climate Fund (GCF) with a corpus of US\$10 billion has been set up under the United Nations Framework Convention on Climate Change (UNFCCC)

to support the efforts of developing countries to respond to the challenge of climate change. ASEAN member states can tap on these funds for climate mitigation, grid strengthening and integration of renewable energy into their systems.

These four favourable factors would be key in driving the expected growth of over 250% in ASEAN's RE sector to achieve the 23% target by 2025. For ASEAN to be well placed to take leadership in this frontier, the policy push to encourage and attract renewable energy projects needs to be continued. The success of such projects in the Philippines and Thailand should be replicated in countries like Indonesia and Vietnam. Also, other ASEAN member states with low electrification rates such as Myanmar can benefit significantly by structuring off-grid and mini-grid projects while supporting utility-scale projects that can be connected to the grid.

The future of renewable energy depends to a great extent on the advancement of storage technologies and the emergence of alternate fuels like green hydrogen that may help take RE to an even higher proportion in the energy mix in the long term. The RE100 commitment of sourcing 100% power through renewable energy sources may appear as an aspiration at this moment, but countries in the region could help realise this ambition by enacting the following four-point framework, namely: (i) Clear policy with supporting legislations and transparent tender/auction process; (ii) Incentivising off-grid and hybrid RE solutions for rapid electrification; (iii) Strengthening and integrating grid by incorporating appropriate storage technologies; and (iv) Proactively designing appropriate projects to leverage clean and green capital from private sector and tap on global climate fund. 🌱

Mr. Sharad Somani, Mr. Andrew Craig, and Ms. Anna Lebedeva are respectively Partner and Head, Associate Director, and Senior Associate of Infrastructure Advisory, KPMG Singapore.

Towards an Energy-Secured ASEAN: Beyond Conventional Patterns

Laurence Delina examines the tectonic climate and economic shifts that demand new approaches and innovative solutions to ensure ASEAN's energy security.

The resurfacing emphasis on ASEAN's energy security is being fuelled by instabilities in oil-exporting nations, rising demands for energy to turbocharge the region's fast economic growth as well as anxieties over whether energy resources will be enough to supply future requirements. Energy supply disruptions during extreme weather events such as typhoons and earthquakes, or as a result of geopolitical rivalries among the major powers, have also underlined the significance of energy security for ASEAN.

Energy security concerns, however, are not limited to only supply challenges. There are different interpretations of "energy security" across countries in the region. While the energy security concept generally means the availability of sufficient and reliable supply at affordable prices, some ASEAN member states, such as coal-exporting Indonesia and Vietnam, would interpret energy security to mean, among others, security of demand for fuel exports, protecting the prodigious contributions of coal exports to their national revenues. Regardless of interpretations, energy security remains a paramount policy agenda for every ASEAN member state.

Key to energy security has been diversification. Expanding supply streams to ensure that increasing domestic demand for energy is successfully met has thus been a prime national concern. Besides, diversification is now becoming more essential on account of the vulnerabilities of energy supply chains, growing economic interdependence, and the rapidly evolving global energy system dynamics, particularly those related to the rise of China that has led the charge in building worldwide energy supply and transmission networks.

A second norm in energy security is resilience, that is, providing a security allowance in the supply system to cushion against sudden jolts and expedite post-disruption recovery. Ensuring that energy systems bounce back requires an array of strategic responses related to fuel stockpiling, such as ensuring ample reserves and storage capacity. Also essential are plans to quickly bring power lines back online.

The conventional understanding of energy security as diversification and resiliency, however, needs to be revisited, in light of the rapidly changing political, economic, and natural shifts of recent years.

The first of these shifts is the climate emergency manifested in extreme weather events, which almost all ASEAN member states have been experiencing first-hand. Many energy facilities in the region are built offshore, where they were designed to withstand "hundred-year storms". However, with strong typhoons passing through the region more often, these assets, and the major cities and communities they serve, have become more prone to severe impacts, including breakdowns of the social order. Experience from super-typhoon Haiyan that passed through central Philippines in 2013, leading to acute power system failure, is a case in point.

Supply diversification and resiliency remain essential to address these shifts. But it is also important to challenge the energy security policies in some ASEAN member states that allow climate-changing fuels, particularly coal, to dominate energy mixes, while not extensively supporting their renewable energy sectors – the potential of which has already been determined to be high.



Wind turbines in Ninh Thuan, Vietnam

Hien Phung Thu@Shutterstock

It would be wiser – and, indeed, urgent – to scale and speed up energy transition in ASEAN in light of energy security. Compared to conventional, centrally-oriented generators such as nuclear power, natural gas, and “clean coal”, generation facilities relying on wind, water, and sunlight energy are more broadly distributed and independent. Since the former systems are exclusively hinged upon finite resources, and at the same time are climate change drivers, they should have a diminishing role in ASEAN’s future energy security.

Encouraging the growth of wind, water, and sunlight energy systems makes economic and technological sense in light of their rapidly declining costs and increasing efficiencies. A focus on the region’s geothermal resources – with Indonesia and the Philippines, two of the world’s geothermal powerhouses – need to be extensively included in this future. ASEAN member states should also make parallel, renewed commitments to energy savings and efficiency. An ASEAN energy transition requires viable and stable investment frameworks, judicious decision-making by governments, and transparent energy markets.

Another key shift is regional economic integration and growing energy interdependence, which means that the energy security of one ASEAN member state will depend much on how that member state manages its energy-relations with neighbouring member states in either bilateral or multilateral frameworks. To ensure the energy security of the entire ASEAN energy supply chain, ASEAN member states require continuing collaboration to connect supply with demand centres.

Indigenously produced renewable energies would need long-distance, cross-border grid systems. Continental ASEAN member states have already envisioned how such systems could work in the example of Laos’ hydropower exports to Malaysia via Thailand’s grid. In the future, renewable energy trade of geothermal, wind, water, and solar energy traversing diverse landscapes across Southeast Asia – and, in some future time, electricity produced by ocean-energy – would require long-distance grid infrastructure such as underwater cables. With storage technologies innovation, however, an ASEAN super-grid future might not be essential; instead, that future must entail security considerations, for example ensuring smooth transport routes in the Strait of Malacca and the South China Sea. Assessing these many viable energy futures should be a high priority not only in the research domain but also in ASEAN’s policy agenda.

Beyond ASEAN, it would be prudent to proactively engage China rather than let Beijing unilaterally dictate the way forward. A productive ASEAN-China regional engagement requires understanding what energy security means for both parties. China has already driven global economic integration through its ambitious Belt and Road Initiative (BRI). No less bold is the ambition of China’s largest state-owned company, State Grid, to create a global super-grid called the Global Energy Interconnection to link all continents with undersea transmission cables and ultra-high-voltage transmission systems. This interconnection

Coal excavation in Kalimantan, Indonesia



Linda Kusuma Dewi@Shutterstock

seeks to ensure China’s energy security, which means not only coping with blackouts on a daily basis but also having sufficient energy to support China’s economic growth and prevent debilitating energy shortfalls that may trigger political turbulence. An ASEAN approach would be needed to safeguard ASEAN member states’ interests and fair treatments in their dealings with China.

The third tectonic shift that has to be factored into ASEAN’s energy security is high-quality data. The quality of information underpins not only market performance but also public behaviour. Improving data flow, thus, is no less crucial at times of disruptions, particularly when an amalgam of social and physical shocks joins rumour and fear in prompting public anxieties. With bad information, an already problematic condition could quickly transmute into something much worse. High-quality and timely data could assist in countering public panics during these times. Managing this data, while ensuring its transparency, also opens up new opportunities to anticipate “what if” situations that could lead to the crafting of fair contingency strategies.

“Energy security”, for all its complexities, demands ASEAN to pursue collaborative and fair approaches to ensure diversified and resilient energy supply. In pursuing energy security, ASEAN member states not only need to heed the challenges of our time – climate emergency, regional integration, China, and big data – but also, and most importantly, project new opportunities and hopes – especially those brought about by renewable energy transition – so that the region can come out well-prepared in the years to come. ❧

Dr. Laurence Delina is Professor of Sustainability at the Hong Kong University of Science and Technology.

Is ASEAN Serious About Nuclear Power?

Denise Cheong and Nivedita S. discuss the prospects of nuclear power and the state of nuclear governance in the region.

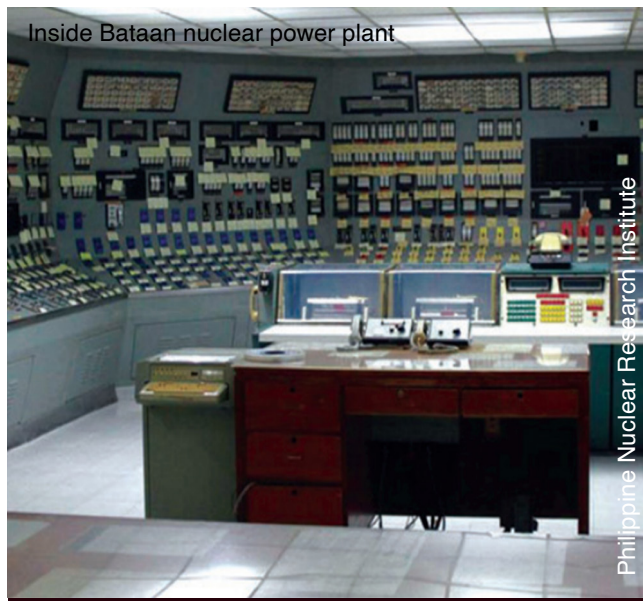
The Treaty on the Southeast Asian Nuclear Weapon-Free Zone (SEANWFZ Treaty), which entered into force in 1997, expressly recognised the right of ASEAN member states to use nuclear energy for peaceful purposes. However, it was not until the 12th ASEAN Summit in 2007 that ASEAN Leaders stressed the need for the development of alternative energy sources, including civilian nuclear power, and tasked ASEAN officials to “look into a regional nuclear safety regime.”

Nuclear power was then included as one of the distinct programme areas in the 2010-2015 ASEAN Plan of Action for Energy Cooperation (APAEC), and its subsequent 2016-2025 iteration. Regional cooperation in anticipation of the possibility of ASEAN member states developing nuclear power has largely centred on information exchange and capacity-building in matters related to nuclear safety and, to a lesser extent, nuclear security.

Nuclear Power in Southeast Asia by 2040?

While the door was officially laid open for civilian nuclear power only in the 1990s, nuclear research reactors have been present in Southeast Asia since the 1960s. The Philippines was the first to embark on a nuclear power programme with its construction of the Bataan nuclear power plant in the late 1970s. However, this was subsequently abandoned, due in part to safety concerns following the Chernobyl nuclear accident in 1986. In 2006, Vietnam embarked on its nuclear power programme with the first power plant originally scheduled for completion by 2020 and later postponed to 2025. However, Vietnam's plans were put on hold in 2016. Indonesia, Malaysia, and Thailand have also been referred to as ‘frontrunners’ in this respect due to their steady progress in developing their national infrastructure in accordance with the International Atomic Energy Agency’s (IAEA) Milestones Approach (which provides guidance for a sound development process for nuclear power programmes).

Of these so-called ‘frontrunners’, Indonesia and the Philippines have not ruled out the possibility of embarking on a nuclear power programme in the future. Indonesia, having done extensive preparatory work to develop its national nuclear infrastructure, has been considered by the IAEA to be in a position to make an informed decision about introducing nuclear power since 2009. However, to date, Indonesia has yet to make a political decision on this issue. As for the Philippines, the IAEA concluded in December 2018 that the Philippines is following a



systematic approach to finalise its nuclear power strategy and complete the development of associated infrastructure, and has provided recommendations for further actions.

Apart from Vietnam, Malaysia and Thailand appear to have changed their plans or at least put them on hold. The IAEA, in the *Energy, Electricity and Nuclear Power Estimates for the Period up to 2050* (2019 edition, being the latest available projections) anticipates that there will be nuclear power capacity in Southeast Asia by 2040. It is unclear to what extent this estimate considers the impact of new technological innovations such as small modular reactors (SMRs), including transportable nuclear power plants (TNPPs) which can be deployed more quickly.

ASEAN's Evolving Approach Towards Nuclear Energy Governance

Given that nuclear power involves a complex and politically-sensitive policy process, its prospects in this region may wax and wane, even in frontrunner countries. Nonetheless, it seems possible that by 2040 or shortly after, nuclear power could be a reality within Southeast Asia. Meanwhile, ASEAN member states already face a transboundary risk due to nuclear power plants located near their borders. Despite the theoretically low probability of a major nuclear accident, ASEAN member states share similar concerns about incurring damage in the event of an accident from nuclear power plants within

the region. Such concerns may also extend to nuclear power plants near the region. As such, ASEAN needs to seriously consider how best to set its governance priorities in order to effectively protect itself from such risks.

Work in this respect began over 20 years ago when the SEANWFZ Treaty was adopted. While its key objective was to establish a nuclear weapon-free zone within the region, this treaty goes beyond this one objective – it also requires member states planning to embark on a nuclear power programme to undertake a safety assessment according to IAEA “guidelines and standards”. Demonstrating significant foresight, the treaty prescribes established international standards as the benchmark for nuclear safety, setting a firm foundation for the evolution of ASEAN’s approach towards nuclear energy governance in the region. In this regard, all ASEAN member states are members of the IAEA and ASEAN recently formalised its cooperation with the IAEA in the areas of nuclear science, technology, and applications, as well as nuclear safety, security, and safeguards.

An analysis of the relevant ASEAN documents since the adoption of the SEANWFZ Treaty lends strong support for the argument that ASEAN’s approach to nuclear energy governance embodies a commitment to follow international rules, standards, and best practices not only in nuclear safety but also nuclear security. This encompasses a commitment to actively participate in and implement the international legal regime and proactively adopt international best practices. The approach also embodies a firm commitment to abide by the fundamental principles of ASEAN in any engagement between ASEAN member states on nuclear issues. Enshrined in key ASEAN constituent documents such as the ASEAN Charter and the Treaty of Amity and Cooperation in Southeast Asia (TAC), the principles call on ASEAN member states to strengthen good neighbourliness and cooperation; contribute to strength, solidarity, and closer relationships; support regular consultations to coordinate views and actions; and do so in a way that upholds international law and adheres to good governance.

This approach provides a broad conceptual framework within which a common ASEAN approach towards specific issues may be forged – one that prescribes the desired standard of governance as well as the manner of engagement. However, this approach must keep evolving. ASEAN still needs to put flesh on the bare bones of this framework by working out what actions should be taken at the international, regional, and/or national levels for specific issues within the scope of nuclear safety and security. How successfully this is done will be a significant factor influencing public acceptance of nuclear power and, ultimately, the success of new build within the region. These are important considerations for a region that is actively looking to develop alternative energy sources to secure its energy needs.

Over the longer term, a common ASEAN approach towards nuclear issues provides the basis for ASEAN to engage other states in broader Asia with the aim of safeguarding the interests of ASEAN as a community. Furthermore, new technological innovations such as SMRs and TNPPs that require a significantly shorter time to be deployed raise difficult governance issues and challenge the current applicable international legal regime. The possibility of a TNPP deployment in or near the waters of Southeast Asia, including the South China Sea, cannot be ignored. Such potential developments beg the question of whether ASEAN’s current governance efforts to crystallise common approaches should take greater priority and how any competing priorities should be effectively managed. ❧

Ms. Denise Cheong is Senior Research Fellow and **Ms. Nivedita S.** is Research Associate at the Centre for International Law of the National University of Singapore. This commentary is based on research undertaken as part of the ESI-CIL Nuclear Governance Project (www.nucleargovernance.sg).



Energy Developments in ASEAN: Opportunity for Collaboration or Avenue of Contestation ?

Christopher Len examines the geopolitical faultlines along hydropower developments and disputed oil and gas resources in the region.



Vietnamese protests in 2014 over China's stationing of the Hai Yang Shi You 981 oil rig in the Paracel Islands

The long-term economic growth of ASEAN member states is tied to access to reliable, affordable, and sustainable energy resources. This growing demand for energy takes place at a time of changing balance-of-power in Asia with the rise of China, international strategic polarisation, and growing resource nationalism. Besides China's growing dependence on seaborne energy trade across maritime Southeast Asia, it has two major sets of energy interests in the region: hydropower developments along the Mekong River Basin, and oil and gas resources in the disputed waters of the South China Sea (SCS). China's growing influence and expanding interests in Southeast Asia is particularly consequential in the energy context. It has implications for the wider geopolitical landscape and risks creating more faultlines in the region, particularly as other external powers weigh in.

Hydropolitics in the Mekong River

The Mekong River Basin, which flows from China's Tibet Plateau through Myanmar, Laos, Thailand, Cambodia, and Vietnam, contains a wealth of biodiversity and natural resources. This basin is among the most active regions for hydropower development with potential for both large-scale projects for national power grids and micro-scale projects for rural electrification. The riparian countries rely on hydropower for both national demand and revenues from cross-border electricity power trade. According to the Mekong River Commission (MRC), 59 hydropower projects between 1MW and 4,200 MW had been developed by 2015 in the Mekong

by Cambodia, Laos, Thailand, and Vietnam. China is likewise undertaking extensive hydropower development on its side of the Mekong called 'Lancang' in Chinese. Its hydropower capacity reached 19,285 MW in 2017, and could reach 29,168 MW if planned infrastructure is commissioned in future.

The proliferation of dams, especially in China and Laos, has raised concerns among downstream countries over their negative impact on the river's ecology and the livelihood of river communities. This uneven utilisation and distribution of water resources has also created anxieties and frictions, since upstream dam operators are in a position to withhold or release water without due regard to the impact on downstream countries. The unannounced release of water from Jinghong dam in southern Yunnan in July 2019 flooded villages in Laos and Thailand, while its reduction of water outflow during a maintenance closure this year negatively impacted the neighbours downstream. These events demonstrate China's ability to control the water flow unilaterally and potentially manipulate it for political leverage over the downstream countries. Furthermore, Chinese investments in Laos and Cambodia's hydropower dams have sparked concerns over the two ASEAN member states' heavy dependence on Chinese finance, which may bolster China's strategic influence in Southeast Asia.

The MRC – established in 1995 as an inter-governmental organisation for Cambodia, Laos, Thailand, and Vietnam

to jointly manage the Mekong – has been ineffectual in stopping controversial dam projects. Funding and staffing cuts in recent years, and the limited participation by China and Myanmar as “dialogue partners” have further crippled its capacity. Its future relevance is overshadowed by the China-led Lancang-Mekong Cooperation (LMC) formed in 2016. Apart from China’s strong financial backing, the LMC has a wider mandate. Its “3+5 framework” covers three cooperation pillars – political and security issues; economic and sustainable development; and social, cultural and people-to-people exchanges – and five priority areas: connectivity, production capacity, cross-border economic cooperation, water resources, and agriculture and poverty reduction. LMC’s broad mandate enables China to further expand its interests with the Mekong countries, thus making it an important component of China’s Belt and Road Initiative.

This prospect has raised misgivings among other major powers such as the US, Japan and Australia. On top of local ecological and environmental concerns, they worry that the regional balance of power is shifting in Beijing’s favour, at the expense of their vision of a free and open Indo-Pacific. The Southeast Asian riparian countries have, on their part, welcomed the enhanced engagements by these major powers, through initiatives such as the Mekong-Japan and Mekong-US partnerships. In August 2019, the Japan-US Mekong Power Partnership was announced with US\$29.5 million in seed funding to promote and develop principles-based, sustainable Mekong regional energy infrastructure. Even South Korea has stepped up its game with a focus on the Mekong in its New Southern Policy.

Oil and Gas Disputes in the SCS

The US Energy Information Administration estimated in 2013 that the SCS contains approximately 11 billion barrels of oil and 190 trillion cubic feet of natural gas reserves, most of which reside in uncontested waters close to the coastal countries’ shorelines. The deep waters of the SCS remain largely under-explored due to ongoing disputes over maritime jurisdiction and the prohibitive costs for exploration activities.

Tensions over oil and gas resources in the SCS have occasionally flared up since the 1970s, as a result of unilateral exploration attempts by the various claimants. These tensions stem from a wider dispute involving the overlapping claims between China and some Southeast Asian countries over the Paracel and Spratly islands. This is further complicated by the lack of clarity over the nature and extent of China’s claims according to its nine-dash line map, which overlaps with the Exclusive Economic Zones (EEZs) claimed by its Southeast Asian neighbours.

There have been various standoffs at sea in recent years, particularly between China and Vietnam. In 2014, a serious confrontation arose when China’s deep-sea oil rig 981 explored the contested waters near the Paracel islands. Recently, the Asia Maritime Transparency Initiative (AMTI) reported that Chinese vessels have, since June 2019, appeared near Vietnam’s oil and gas Block 06-01 northwest of the Vanguard Bank, which falls within

Vietnam’s EEZ and China’s nine-dash line. Natural gas from Block 06-01’s Lan Do field provides up to 10% of Vietnam’s total energy needs. Since July, China has been undertaking its own surveys northeast of Block 06-01. AMTI also reported that a China Coast Guard vessel recently harassed the operations of the Sapura Esperanza drilling rig operating in block SK 308 licensed by Malaysia, located near Luconia Shoals off the coast of Sarawak.

These developments have prompted the US to express concern, with the Department of Defence calling out China’s “coercive interference in Vietnam’s longstanding oil and gas activities”, while the State Department declared that “China’s repeated provocative actions aimed at the offshore oil and gas development of other claimant states threaten regional energy security and undermine the free and open Indo-Pacific energy market.”

Meanwhile, Philippine President Rodrigo Duterte has reached out to China to forge a resource sharing arrangement at the Reed Bank, which falls within the Philippines’ EEZ but is contested by China. Manila needs to urgently undertake new offshore oil and gas developments because the Malampaya natural gas field – which supplies 30% of the country’s power generation – will be depleted by the mid-2020s. However, Duterte would need to overcome significant domestic political and legal hurdles for this to take place.

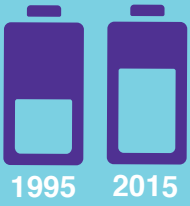
Beijing’s current approach is to prevent and disrupt any unilateral attempts by the Southeast Asian claimants to explore and develop the seabed resources while negotiating a Code of Conduct in the SCS (COC) and advocating joint development. But even the COC negotiation is not insulated from the contested energy dynamics, as China proposed that oil and gas development in the disputed areas be undertaken by the littoral states only, without participation by third-party companies. This has resulted in criticisms from other powers, especially the US, which sees this as China’s attempt to assert control over oil and gas resources in the SCS and restrict ASEAN member states’ rights to partner with other countries.

Conclusion

The combination of economic growth, rising demand for energy, and resource nationalism has added another layer of complexity to China’s relations with Southeast Asia and ASEAN. Whether in the Mekong or the SCS, China’s growing clout has presented both opportunities for energy cooperation and challenges to national sovereignty for the Southeast Asian countries concerned. These developments in continental and maritime Southeast Asia are emerging critical flashpoints which could turn Southeast Asia into an arena for great power confrontation if not managed properly. ASEAN and its member states must unite to mitigate great power tensions and ensure that the energy sector develops peacefully, to the benefit of the region’s inhabitants. 🌊

Dr. Christopher Len is Senior Research Fellow at the Energy Studies Institute, National University of Singapore, and Associate Fellow of the ISEAS-Yusof Ishak Institute.

Energy Security in ASEAN

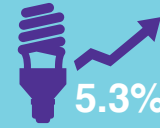


Energy consumption in Southeast Asia nearly doubled between 1995 and 2015 with an average pace of 3.4% annually. ⁷

Oil remains the dominant choice of fuel, accounting for up to



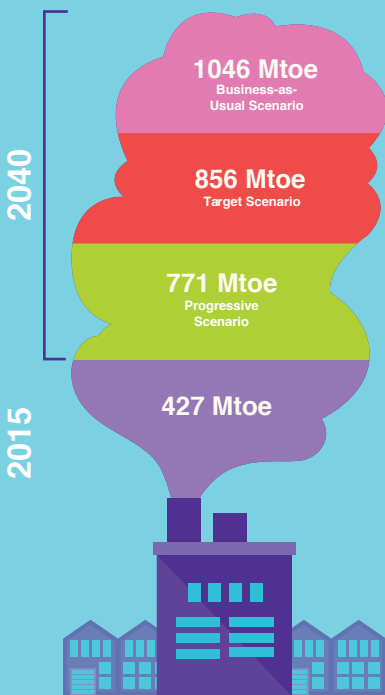
of the region's total energy consumption in 2015-2040 ¹



Average growth rate of Southeast Asia's electricity demand from 2000-2017 is approximately twice the world average ¹¹

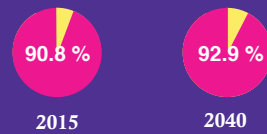
Increase of Total Final Energy Consumption in Southeast Asia from 2015 to 2040 ¹

(Mtoe : Million tons of oil equivalent)

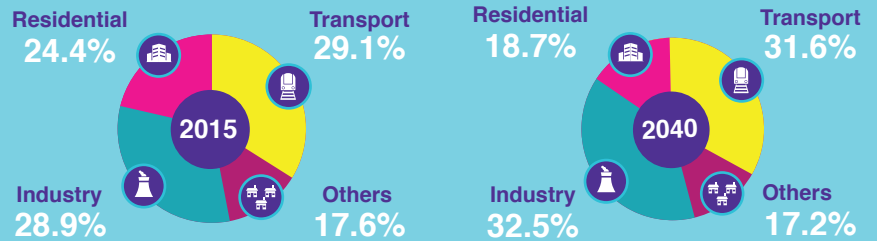


Electricity consumption is projected to grow by a factor of 2.5 from 82 Mtoe in 2015 to 207 Mtoe in 2040 ¹

Share of Indonesia, Thailand, Vietnam, Malaysia and the Philippines in the region's total energy consumption ¹



Total Final Energy Consumption Projections by Sector ¹



Electricity Access

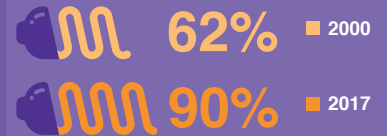
Number of people without access to electricity

190 million in 2005

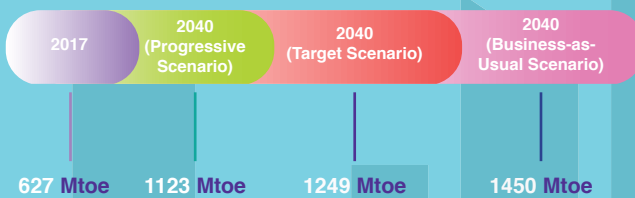


70 million in 2019

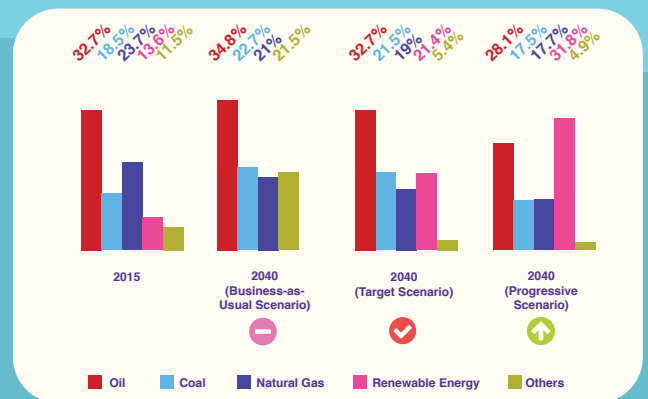
Share of people with access to electricity ⁹



Increase of Total Primary Energy Supply in Southeast Asia from 2017 to 2040 ¹



Share of Energy Mix in Total Primary Energy Supply ¹



Business-as-Usual Scenario:
No significant changes to past practices of ASEAN member states

Target Scenario:
Achieving most energy efficiency and renewable energy national targets

Progressive Scenario:
Achieving regional targets in the ASEAN Plan of Action for Energy Cooperation 2016 – 2025

US\$300
billion

Southeast Asia's estimated net deficit in energy trade in 2040, or 4% of the region's GDP ⁴

US\$2.7
trillion

Southeast Asia's cumulative energy investment requirement in energy supply and efficiency to 2040 ⁴

US\$365
bil.

Investment in the power sector in Southeast Asia since 2000 ⁴

US\$195
bil.

Grid expansion and improvement

US\$69
bil.

Renewables

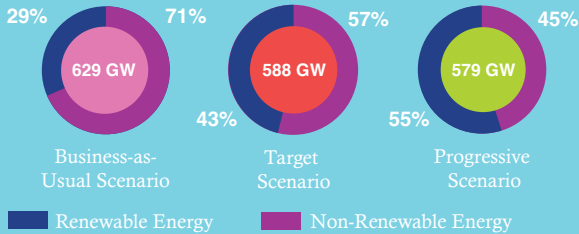
US\$66
bil.

Coal

US\$35
bil.

Gas

Estimate of power capacity composition in 2040 ¹



US\$1.25
trillion

Required power sector investment in Southeast Asia to 2040 ⁶

Nuclear energy generation will reach 3 Mtoe in 2040, accounting for **less than 0.5%** of the region's energy mix in 2040 ¹

ASEAN has exceeded its energy efficiency target well ahead of its 2020 target, by reducing energy intensity by more than **21.9%** ¹²



611,000
2016



1.7 million
2030

Jobs created in the renewable energy sector across Southeast Asia, mostly in liquid biofuels, large hydropower and solar PV. ⁷



2,155

Solar PV installations in Singapore as of end-Quarter 1 of 2018 ⁵

23%
ASEAN's target share of renewable energy in its energy mix by 2025 ²

20%
Target share of renewable energy in Malaysia's power mix of installed capacity by 2025 ⁵



Solar power plants will be connected to Vietnam's national grid by end-2019 ¹⁰

17%

Share of renewable energy sources of the region's total electricity generation in 2015 ⁷

US\$27 billion



Cumulative investment in renewable power in Southeast Asia in 2006-2016 ⁷



Thailand plans to float **16 solar farms** with a combined capacity of more than 2.7GW in nine hydroelectric dam reservoirs by 2037 ⁵

51.14
million kW

Electricity generated from renewables in Indonesia, Thailand, Vietnam, Malaysia and the Philippines in 2017, an increase of **130%** compared to 2007 ³

36%
Coal will account for 36% of Southeast Asia's energy mix for power generation by 2040 ⁸

692 Mt in 2000
1,323 Mt in 2017

Energy-related CO2 emissions in Southeast Asia ¹¹

Savings of US\$150 billion from reduction of fossil fuel imports

Reduction of emission levels by **50%**

Prevention of **up to 70%** of premature deaths.

8% in 2000
19% in 2017

Share of coal in the region's energy mix ¹¹

Emissions from energy could rise by

61%

in the ASEAN region by 2025, driven mainly by coal-fired electricity production, industry and transport sectors. ⁷

In 2040, per capita emissions will increase by a factor of: ¹

1.9



Business-as-Usual Scenario

1.5

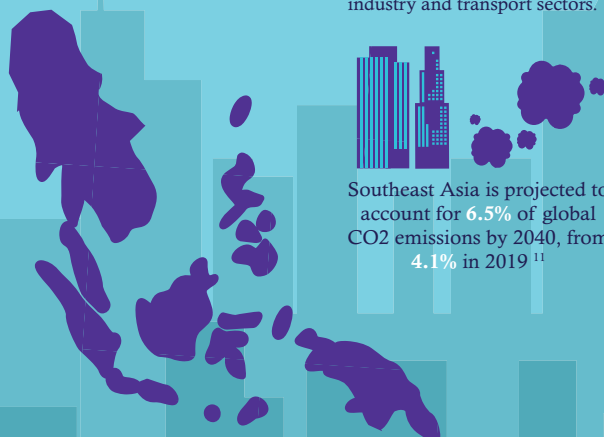


Target Scenario

1.2



Progressive Scenario



Southeast Asia is projected to account for **6.5%** of global CO2 emissions by 2040, from **4.1%** in 2019 ¹¹

Sources:

1. The 5th ASEAN Energy Outlook 2015-2040, ASEAN Centre for Energy, 2017
2. ASEAN Plan of Action for Energy Cooperation 2016 – 2025, ASEAN Secretariat
3. International Renewable Energy Agency 2017; Nikkei Asian Review 2019
4. Southeast Asia Energy Outlook 2017, International Energy Agency, 2017
5. Black & Veatch 2019
6. International Energy Agency 2018
7. International Renewable Energy Agency 2018
8. Wood Mackenzie 2019
9. Compiled from various sources
10. Vietnam Electricity Group 2019
11. Southeast Asia's Energy Transition: Powering towards the SDGs, Ecosperity 2019
12. ASEAN Secretariat 2019

Connecting Young Souls with Old Tunes



Ibrahim Hamid shares the inspiring story of the Orkestra Melayu Singapura (OMS) that has striven to keep Malay traditional music alive and well in cosmopolitan Singapore.

AF: What inspired you to become a musician and an advocate for Malay music?

IBRAHIM: I am actually an IT consultant by profession. But music has been a part of me since young. I was in the school band during my primary and secondary school days. During my national service, I was a musician in the Navy band. That was when the first and former OMS conductor, Mr. Mohd Mokhtar Abdullah asked me to join Persatuan Seni Muzik Melayu Singapura, or PSMMS for short in the late 80s. We played pop and traditional Malay music, arranged in a big band setting. We were based at Kampung Ubi CC at that time.

AF: Could you tell us about Orkestra Melayu Singapura (OMS), how it came to be, and its motto of Bringing Music-Culture-People Together?

IBRAHIM: Sometime in early 1991, we were told that People's Association (PA) was forming a Malay orchestra as part of its efforts to bring people together through arts and culture, and at the same time to preserve and promote

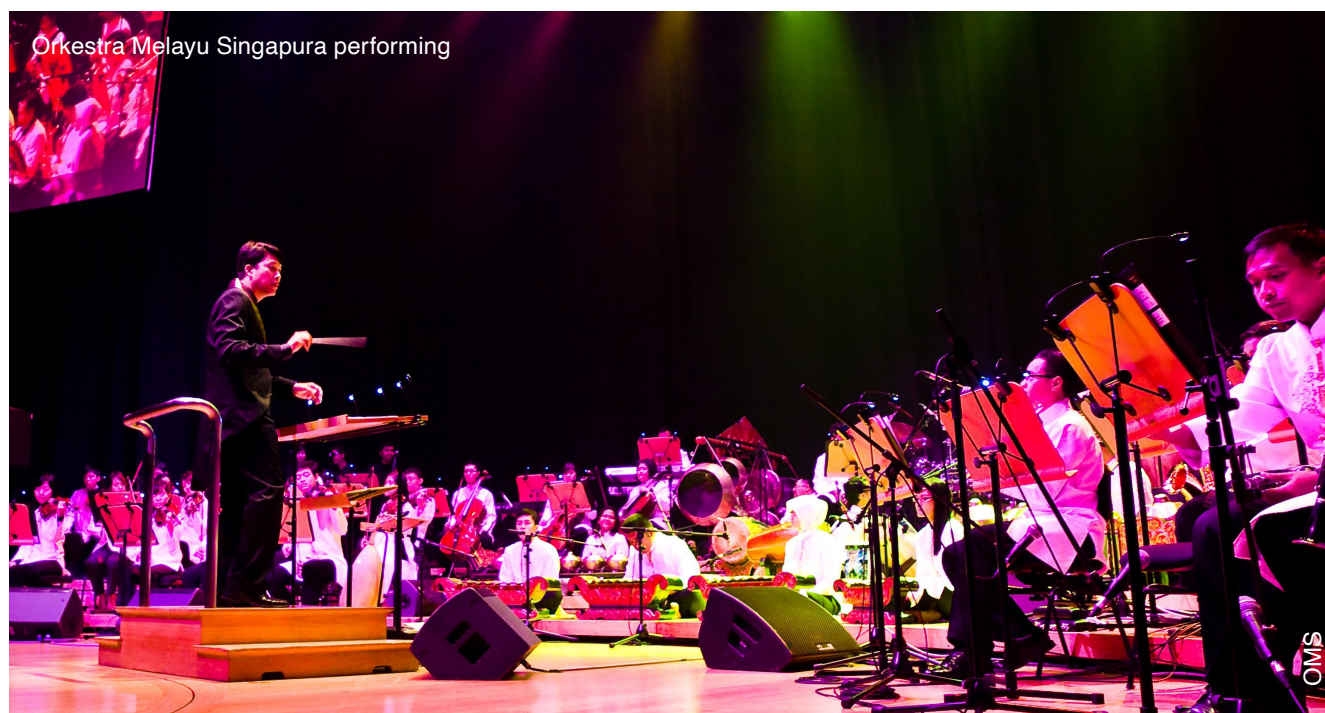
Malay music in Singapore. So some of us who were already in PSMMS auditioned to be in the orchestra. Following the first audition, OMS was formed in September 1991 with 23 members. The orchestra's first conductor was Mr. Mohd Mokhtar Abdullah, a composer and musician. Its repertoire comprised original compositions, pop, and traditional Malay pieces. Today, OMS is a 40-strong orchestra, helmed by its Music Director, Mr. Amri Amin.

AF: What instruments are played in OMS, and have these changed over time?

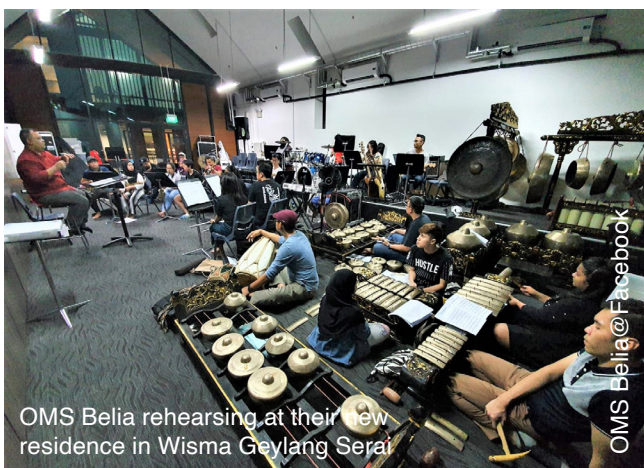
IBRAHIM: OMS' instrumentation in its formative years was mainly brass and woodwinds backed with the standard rhythm section. Over the years, we have added gamelan, traditional Malay bamboo flute, and percussive instruments as well as the string section.

AF: What are the key challenges faced in the promotion of Malay music in Singapore?

IBRAHIM: I feel that the main challenge to promoting traditional Malay music is the competing influence of pop and modern music from the West. In the 1950s-60s, early Malay films were synonymous with the classics composed by great composers like Zubir Said, Wandly Yazid, P. Ramlee, and so on. Those were the times where film soundtracks were in *asli*, *inang*, *joget* and *zapin* rhythm. With the advent of Western music, however, traditional music slowly phased off on radio and television.



Orkestra Melayu Singapura performing



I think more can be done to support performing arts groups, in terms of space, music training, workshops and even expertise. In Malaysia and Indonesia, there are academies and music institutions that teach traditional Malay music with established methods and pedagogies, but we do not have one in Singapore. Although it may be too ambitious to conceive one here, we can start small by introducing and forming small traditional ensembles in schools playing *asli*, *inang*, *joget* and even *keroncong* music, apart from what we already have like *anklung*, *kulintang* and gamelan. This would help inculcate traditional music literacy, which should start early from primary school level.

AF: How has OMS actively encouraged youth interest and participation in performing traditional Malay music?

IBRAHIM: The youth orchestra of OMS, OMS Belia, was set up in 2004 to introduce Malay music to young musicians in general. It went through a five-year journey of exposing Malay music to many secondary school students. Under a new team of youth leaders, we had our inaugural Music Discovery Program (MDP) in 2011 – an experiential programme where young musicians from various backgrounds and ethnicities come together to learn about traditional Malay music. The program includes exposure and introduction to the five basic Malay genres through regular workshops conducted by our very own professional musicians, and gamelan workshops conducted by our gamelan music expert, Iswandiarjo. Through this journey, we see many MDP participants diving into the arts scene at a later stage of their life. Many have become successful performers, award-winning artists, and academics. This is a great motivation to their younger peers to pursue the arts as a career.

AF: How has OMS sought to keep traditional Malay music alive in an urban modern space?

IBRAHIM: Simply by just performing, albeit in an orchestra setting. Good and fresh arrangements will excite the more discerning Singapore audience, and in turn aspire younger musicians to better appreciate and perform this genre too. Recently we performed *Sukma Irama Layar Perak* (Soulful Silver Screen Melodies), which is part of the Silver Arts programme of the National Arts Council (NAC). There, we performed classic film songs from the 1950s and 60s, arranged in a big-band orchestration and even post-modern ragtime style. It was well received with a full house for both the matinee and gala night performances. The music is arranged by OMS musician Irawan Gani and Danial Ariffin Azman who recently graduated with First Class Honours in the Bachelor of Arts (Music) programme, specialising in Music Composition and Arranging at the Lasalle College of The Arts.

AF: How does OMS promote understanding and experience of Malay music to non-Malay audiences?

IBRAHIM: To be honest, we do not have any magic formula when performing to a general audience. Music is universal. However, it is important to provide bilingual scripts or brochures as much as possible so that non-Malay audiences are able to understand and appreciate the performance.

AF: What are some of the differences in style, technique, or performance between Malay music in Singapore and that of its neighbouring Malay populations?

IBRAHIM: In my opinion, there is not much difference. Singapore's social fabric, like that of Malaysia, comprises primarily three main races – Chinese, Malay, Indian, with the Chinese forming the majority here and Malays in

Malaysia. However, in terms of multi-ethnic ensembles or orchestras, ours are not as diverse as our neighbour, as they often incorporate instruments from their indigenous people from Sabah and Sarawak, as well as those from Kelantan near the Thai border, both of which have rich cultural heritage.

AF: *Are there any uniquely Singaporean elements to OMS performances, for example, through the integration of multi-cultural influences or collaborations with musically diverse artists?*

IBRAHIM: Yes. Recently we collaborated with Harpeth Rising, an American all-female folk trio during their stop here. We infused traditional Malay instruments and sound into their folk songs which have Irish and Eastern European influences. And when we performed our local song like *Bunga Sayang* for them, we introduced *asli* and *keroncong* rhythm with a Peranakan feel to the song.

AF: *OMS features elements of gamelan, which is more traditionally associated with Indonesian culture. How has OMS incorporated and adapted gamelan to suit its style?*

IBRAHIM: OMS acquired a new set of custom-made gamelan that is tuned to the 12-note chromatic tuning. It allows greater flexibility in the incorporation of gamelan into our music and effective use of the instrument in the musical composition. Nevertheless, the gamelan ensemble continues to play classical Javanese repertoire as a foundation for us to explore other possibilities. Besides, OMS Belia has actively incorporated gamelan in their repertoire of contemporary ethnic pieces.

AF: *What is the current makeup of OMS in terms of age? How does OMS bridge age differences when it comes to building a repertoire?*

IBRAHIM: The youngest musician is a 19-year old cellist, while the oldest is a 72-year old saxophonist. OMS decides on the repertoire of any particular performance based on the theme of the event.

AF: *Is there a “signature” tune or song by OMS, and what is OMS’ most memorable performance over the years?*

IBRAHIM: OMS does not have any particular ‘signature’ tune. One of the most memorable performance we did is Gema Sahara in 2013 at the Esplanade, where we performed tunes from the Middle East.

AF: *Could you tell us something about OMS’ next “persembahan” (gig)?*

IBRAHIM: OMS Belia orchestra will have its upcoming performance at the Malay Youth Festival, Gala Laga on 28 December 2019 at the Wisma Geylang Serai. The orchestra will perform our own rendition of traditional numbers and contemporary-ethnic compositions. In this show, stand-alone instruments are crafted into the orchestration. There will also be a workshop on 29 December 2019 titled Introduction to Gamelan. We invite *ASEANFocus* readers to join us for these exciting performances and activities.

AF: *What do you personally hope to see in the future of the music scene in Singapore?*

IBRAHIM: I hope to see our local artistes, composers, arrangers and singers be bold and brave to explore and craft our own sound, the Singapore sound. This will not be easy as it takes a mature Singapore audience to be able to accept and henceforth support Singapore music. It is also a challenge for the traditional practitioners to earn a decent living out of just producing and performing full-time. Hence the need to have consistent support for them from the government, corporate sponsors and art philanthropists. 🇸🇬

Mr. Ibrahim Hamid is Orchestra Leader of the Orkestra Melayu Singapura (OMS).



The Istana Negara Singapura: Through the Shifting Sands of Time

Glenn Ong explores the Istana's evolution alongside Singapore's history as the nation commemorates its bicentennial.



Elisa.rolle@Wikimedia Commons

While glitzy malls like ION Orchard and Takashimaya dot the western and central belt of Orchard Road, its easternmost stretch exudes the vintage aesthetic of colonial era buildings, bestowing an air of serenity and regality to the bustling shopping district. At the centre of this eclectic and dizzying image of Singapore's modernisation sits the Istana Negara Singapura, formerly known as Government House, the official residence of the President of Singapore and the office of its Prime Minister. On most days, the stately demeanour of the Istana (Malay for 'palace') can barely be felt – its imposing façade is hidden behind a massive iron gate, shielded from the wondering eye by towering trees, and tucked away beyond the long and winding trail of Edinburgh Road. But on the first Sunday of selected months, unsuspecting bystanders and seasoned visitors are treated to an intricate ceremonial procession, a reminder of the neighbourhood's historical significance and a prelude to the august institutions within.

As the oppressive heat of the afternoon sun yields to the gentle caress of the evening breeze, the pearly white gates of the Istana are pried ajar, and a crowd begins to form around its entrance. Curious passers-by halt in their tracks to observe the commotion. Soon, the monotonous

drone of vehicles whizzing past is gradually supplanted by a faint blaring of trumpets. In the distance, members of the Singapore Armed Forces (SAF) Band emerge with a troop of ceremonial guards decked in smart white uniforms and red peaked caps, accompanied by Military Policemen dressed in their iconic olive green garb and white helmets, the catchy rhythm of the beating drum setting a steady tempo for their every move. The Istana's Changing of Guards ceremony – broadly inspired by the Changing of the Guard at Buckingham Palace – combines a solemn handover of military duties with an entertaining rifle precision drill choreographed to the tunes of the latest pop hits, making the procession an intriguing medley of tradition and modernity. As with this ceremony, the history of the Istana illustrates how the legacies of Singapore's colonial past intertwine with indigenous influences and contingencies to produce a monument that has acquired diverse meanings in different times.

The impetus for the construction of Government House came after the governance of the Straits Settlements – formed in 1826 and comprising Singapore, Malacca, and Penang – was transferred from the India Office to the Colonial Office in April 1867. The Straits Settlements



The Centre Gate of the Istana, emblazoned with Singapore's National Coat of Arms

The Istana



Performers from the SAF MP Command and SAF Band at the Istana 150 Event with President Halimah Yacob

President Halimah Yacob@Facebook



Children playing on structures made from old National Stadium benches

The Istana



Vibrant wildlife coexist alongside the buzz of human activity within the Istana's compounds

The Istana

thus became a Crown Colony under direct British rule, which mandated the installation of a governor in the colony's seat of power, Singapore. In the same year, Sir Harry Ord, the new governor, acquired more than 100 acres of land from Charles Prinsep's ailing nutmeg plantation to construct his official residence. Under the colonial engineer Major John McNair – who also designed St. Andrew's Cathedral and Empress Place Building – Government House acquired a blend of Western and Malay architectural styles, incorporating Neo-Palladian design cues evidenced by its “Doric and Ionic pilasters and columns, architraves, cornices, and arches”, combined with indigenous influences such as “wide verandahs, large louvred windows, as well as dwarfed piers and arches that resemble stilts elevating the entire structure”.

The “entire brickwork” and “most of the flooring” was completed with convict labour brought in from British Bencoolen in Sumatra, courtesy of Major McNair's concurrent appointment as Superintendent of Convicts. Coolies in Singapore were roped in at the final stages to furnish the lavish interior. The way in which Government House was constructed demonstrates the ability of the colonial state to muster resources by tapping on its vast imperial network for the projection of British power in its Southeast Asian possessions. After two years of labour, Government House opened its gates in 1869, symbolising the dawn of the British colonial state's consolidation in the peninsula.

The amalgamation of natural and built features in the Istana is not an artificial or recent innovation, but a profound and organic element of its development. Journeying past the gated entrance up Edinburgh Road – presumably named after its first guest, Prince Alfred, the Duke of Edinburgh – one is flanked on both sides by lush greenery and an abundance of flora and fauna. Visitors are first greeted by an expansive and well-kept fairway, and can interact with fascinating structures fashioned from repurposed wooden benches from the old National Stadium. The path towards the Istana Main Building is replete with vibrant features like a swan pond, a spice garden, and a Japanese garden that integrate seamlessly with the swanky front lawn adorned with a picturesque water fountain. It is easy to see why the compounds have been dubbed a “green lung amid the hustle and bustle of the metropolis”. Just after the Centre Gate sits a two-storey, 19th century bungalow which served as the home of the Colonial Secretary and was later renamed Sri Temasek (or “splendour of Temasek”), the original Javanese name for Singapore.

The serenity of the Istana, however, belies the tumultuous events that befell Singapore in the mid-20th century. When Japanese troops penetrated Britain's seemingly impregnable fortress in the Far East in 1942, they shelled a portion of the Government House's gun terrace. They then seized the building and repurposed it as the General Headquarters of the Southern Expeditionary Forces, the command centre of Field Marshal Hisaichi Terauchi. The fall of Singapore temporarily transitioned Government

House from a symbol of British colonialism to the nucleus of Japanese imperialism in Southeast Asia.

Japan's defeat in 1945 saw the Rising Sun set as the Union Jack was once again hoisted at Government House. Yet even the British could not outstay their welcome amidst the awakened national consciousness mushrooming throughout the Global South. Government House was renamed the Istana in 1959 when London granted Singapore internal self-government, where it thereafter became the official residence of the island's first non-British Yang di-Pertuan Negara (Head of State), Yusof bin Ishak. It was not until 1965, however, that Singapore's separation from Malaysia earned the city-state full independence, conferring upon the Istana its present status as a symbol of Singaporean nationhood. After 96 years of existence, the Istana finally became the monument of national sovereignty it is now known as.

Today, the Presidential Standard flies proudly atop the Istana when the President is in the country. A tour of the State Room, Banquet Room, and Reception Room reveals more than 1,400 state gifts bestowed by foreign dignitaries, a testament to the recognition that world leaders accord to Singapore and its head of state. On at least five occasions each year, the Istana hosts open houses where Singaporeans and tourists alike are invited to enjoy the scenic view, organise family picnics, and revel in performances put up by talented artistes. With digital initiatives like the Istana Garden Walk, visitors can embark on self-guided tours and curate their own experiences, allowing them to create unique memories and to directly shape what the Istana means to them.

Indeed, as the Istana commemorates its 150th anniversary this year, efforts have been taken to encourage greater participation in, and understanding of, the compound's significance as a site for the inculcation of a Singaporean national identity. During the "Istana 150 Commemorative Event" this October, the presidential palace was opened to the public at night for the very first time. With the Istana as its canvas, a sensational light show portraying the inking of landmark documents and the inauguration of key leaders was projected on the building's façade, depicting the enduring presence of the Istana throughout Singapore's state-building journey. The performance encapsulated the duality of the Istana's form and function as not merely an architectural marvel but also a keystone in the island's governance and administration.

The Istana has represented different things to different people at different points in Singapore's history, all while being an enduring feature of the island's evolving landscape. This complexity is a quality to be embraced rather than shunned. The Istana's timelessness as a bedrock amidst the shifting sands of Singapore's development was perhaps most eloquently expressed over 130 years ago by Sir Frederick Weld, Governor of the Straits Settlements (1880–1887): "It is nearly perfect cool and airy, with a beautiful view of land and sea, and glimpses of the town and shipping through the trees, whilst landward, when

Singapore's Presidential Standard flies proudly atop the Istana's apex



The President of Turkmenistan inspects an SAF Guard-of-Honour contingent at the Istana on his first State Visit on 27 August 2019, accompanied by President Halimah Yacob



Courtesy Call at the Istana by Qatar Deputy Prime Minister and Minister of Foreign Affairs

the evening haze or the morning mist soften the outlines of the undulations, fill each little valley, and bring out the masses of dark trees, rising against the skyline, it would be hard to find a more perfect picture of repose in a richer landscape." 🌿

Mr. Glenn Ong is Research Officer at the ASEAN Studies Centre, ISEAS-Yusof Ishak Institute.

Gamelan: A Medley and Harmony of Tunes

Anuthida Saelaow Qian follows the beats of gamelan, the percussive orchestra native to Southeast Asia.



The sun is setting on the Bali island of Indonesia, casting a soft glow over its sweeping beaches and endless rice fields. In the heart of Ubud, the island's cultural capital, an ethereal sound is heard drifting through the streets. Against a vivid backdrop of tropical greenery and intricately carved stone sculptures, a troupe of dancers is performing a traditional *legong* dance in the Ubud Royal Palace, swaying fluidly and perfectly in time with the dulcet tunes of a gamelan ensemble flanking the stage. As if executing an elaborate dance routine of their own, the gamelan players' hands fly over their instruments with lightning-fast alacrity and profound concentration. Sonorous echoes resonate throughout the courtyard, enveloping the audience in a hypnotic canopy of sound.

Legend has it that gamelan's origins can be traced back to Sang Hyang Guru, a god who ruled Java from his palace in the heights of the Mahendra Mountains. He created a set of gongs to communicate with other gods, which constituted the first gamelan. Outside the realm of mythology, this ancient form of music has mysterious and speculative beginnings, with the earliest image of a gamelan ensemble depicted in bas-reliefs dating back to the 8th-9th centuries in Java's Borobudur Temple. Born out of a potpourri of inspiration and influence across continents and centuries, gamelan is representative and reflective of the archipelago's diverse and dynamic history, cultures, and traditions. Indonesia's Hindu-Buddhist heritage, the metal-using Dong Son tradition of ancient Vietnam, and Islamic and Arabian cultures are all thought to count among the various contributors to gamelan's development.

Gamelan ensembles comprise mainly percussive instruments crafted from bronze or brass, including drums, gongs, metallophones, cymbals, and xylophones,

making up one of the major forms of gong-chime music endemic to Southeast Asia and arguably the most well-known in the world. Though other elements such as the *suling* (bamboo flute), the *rebab* (bowed stringed lute), and even vocals are often present in an ensemble, gamelan's dominating sounds are produced by the striking of percussion instruments by hammers or mallets. Gamelan's namesake is thus believed to stem from the Javanese word "gamel", which refers to both a type of hammer and the act of handling one. Each gamelan set is built with its instruments tuned in relation to one another, designed to work as a single, unique entity. Achieving this specificity and consistency requires the mastery of gong-smiths who traditionally strive to hand-forge the metal instruments at approximately the same time. Of equally impressive artistry are the wooden frames and cases that house these instruments, which are elaborately carved, brightly painted, and decorated with ornate motifs.

Gamelan is deeply ingrained in the local life and cultural scene of Indonesia. It provides the musical backdrop to religious rites as well as traditional dance and theatre acts such as *wayang kulit* (shadow puppetry) and *ketoprak* (folk drama). It is also engaged to celebrate important life events such as weddings, circumcisions, and births, as well as temple ceremonies and court rituals. The otherworldly and mesmerising resonances of gamelan music are believed to be sacred, with the *gong ageng*, the ensemble's largest and deepest-pitched gong, said to be "an invisible voice to and from the spirit world". In a mark of respect, incense is burned and offerings are made to the *gong ageng* before performances, and every instrument is treated with deference by the musicians who adhere to such etiquette as taking their shoes off and never stepping over any instrument in the gamelan area.

With anywhere from two to fifty players, a multitude of regional variations and styles, different permutations of instruments, and special tuning and rhythmic systems, every gamelan ensemble has its own distinct and individual personality that often mirrors the traditions and beliefs of its region. Though the two most prominent styles of gamelan, namely Balinese and Javanese, share characteristically layered textures and a repetitive nature sometimes associated with the rhythmic pattern of the *lesung* (a mortar used to husk rice), they diverge in other respects that reveal the social, political, and cultural shapings of both regions. For instance, the decline of Balinese monarchy under Dutch colonial rule resulted in the expansion of gamelan from the courts to villages, catalysing the development of the island's most popular gamelan genre known as *gong kebyar* (“to burst open like a flower” or “to flare up like a match”) when locals freely experimented with and added to classic styles. While Balinese gamelan enjoys sudden, explosive tempo changes and dramatic dynamics, its Javanese counterpart tends towards a slower, softer, and more meditative approach corresponding to the spread of Sufism, which views music as a “spiritual staple”.

Javanese migration across the Malay Archipelago also brought about *gamelan melayu* or Malay gamelan. Accompanied by a classic dance form known as *joget gamelan*, the gamelan's captivating sounds became a court tradition in Pahang and Terengganu, performed at royal celebrations. This lively tradition, after a hiatus during and in the aftermath of World War II, was rediscovered in the 1960s by Mubin Sheppard, the curator of Muzium Negara (National Museum of Malaysia). Under his direction, *joget gamelan* was presented to the public for the first time in 1969, opening up this art form to a new generation of audience.

Gamelan music has crossed beyond Southeast Asian shores. Eminent French composer Claude Debussy infused elements of gamelan into his work after he first came across its enchanting and spellbinding sounds at the Exposition Universelle of 1889 in Paris. Gamelan's counter-intuitiveness to European classical music traditions came as an epiphany to Debussy, who waxed lyrical about the gamelan's ability to “express every shade of meaning”. His acclaimed piano composition, “Pagodes”, carries unequivocal echoes of gamelan through its inspired structure, timbre, and rhythmic pattern. Subsequently, other Western composers such as Erik Satie, Francis Poulenc, and Colin McPhee also incorporated gamelan's trademark interlocking layers into their oeuvres, signalling its potent allure to myriad audiences.

Following Indonesia's independence from the Netherlands in 1949, the archipelago contended with the challenge of bringing its disparate ethnic and religious communities together. Alongside other traditional arts, gamelan played an important role in exemplifying Indonesia's national motto of “*Bhinneka Tunggal Ika*”, or “Unity in Diversity”. Despite all its variations and innovations, gamelan retains at its core shared techniques, concepts, and spirit, wholeheartedly capturing and embodying the essence of

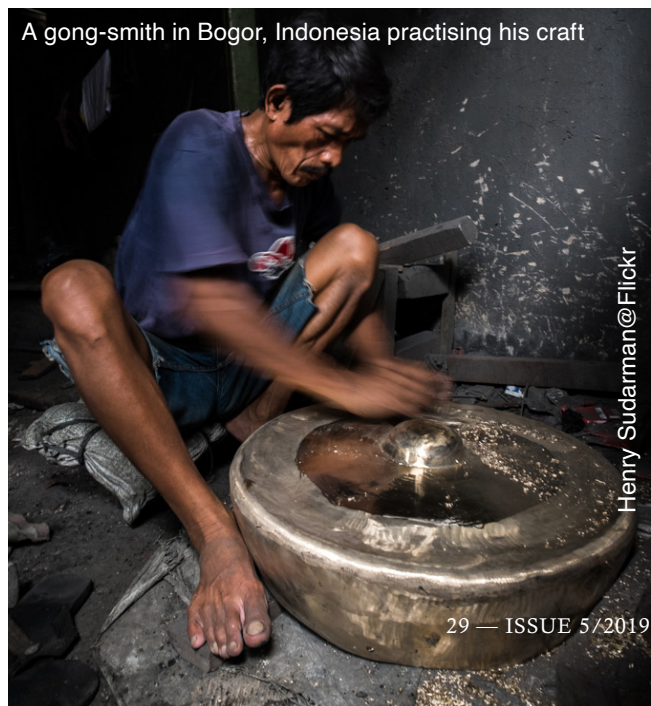
this motto through its collective nature. Each player in a gamelan ensemble has a critical part to play, with no one instrument taking the lead. Every component combines beautifully and intricately into a tightly woven tapestry of sounds that is greater than the sum of its parts.

The recognition of gamelan's significance in Indonesian culture, and thus the need to preserve and promote it as a national art form, saw the establishment of state-funded gamelan schools in the 1950s-60s and frequent broadcasts of gamelan music on Radio Republik Indonesia, the nation's public radio network. Today, gamelan continues to possess an enduring relevance in contemporary society, with a timeless appeal that transcends geographical and cultural barriers.

Outside of Indonesia, many Southeast Asian homegrown ensembles such as Gamelan Asmaradana and Orkestra Melayu Singapura in Singapore, Malaysian Traditional Orchestra and Rhythm in Bronze in Malaysia, as well as a whole multitude of others are steadily sustaining and breathing new life into the gamelan tradition by merging a litany of regional cultural influences into their repertoires. Gamelan has also enriched the region's cultural diplomacy, its sets being presented as gifts to foreign institutions. Complete gamelan ensembles can be found all over the world, with over 100 gamelan groups active in the United States alone. Its cyclical structure and glittering sonic textures have found favour with musicians and spectators far and wide, appearing in anything from electronic ditties by Icelandic recording artist Björk to the soundtrack of 1988 cult favourite anime film *Akira*.

No longer just the mainstay of royal courts and temples, gamelan now holds an esteemed place in modern culture. Its sound has continuously evolved and expanded, enriched by diverse cross-cultural exchanges and experiences within and beyond Southeast Asia. The gamelan's shimmering and expressive sonorities tell a story of the rich and multitudinous histories of the region. And the story goes on. 🎵

Ms. Anuthida Saelaow Qian is Research Officer at the ASEAN Studies Centre, ISEAS-Yusof Ishak Institute.



A gong-smith in Bogor, Indonesia practising his craft

Henry Sudarman@Flickr

Siamese Crocodile

Crocodylus siamensis

Numbers remaining in the wild: Fewer than 1,000

Status: Critically Endangered

Found in Cambodia, Indonesia, Laos, Thailand, Vietnam, possibly Malaysia and Myanmar

The Siamese Crocodile is a medium-sized crocodylian typically not exceeding 3.5 metres in length, with distinguishing features such as a bony crest behind each eye and a broad, smooth snout. Though once abundant in freshwater habitats across Southeast Asia, it is now one of the world's most endangered crocodylians with small and fragmented populations. The species was believed to be virtually extinct in the wild in the early 1990s until a small group was rediscovered in Cambodia in 2000. Their survival is severely threatened by many factors, including poaching for their meat and skin as well as habitat loss and degradation due to agricultural and urban expansion. The Siamese Crocodile is classified as Critically Endangered on the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species. It is also protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

(Sources: IUCN, Fauna and Flora International, Wildlife Conservation Society)

