Responses to COVID-19 in Southeast Asia: Diverse Paths and Ongoing Challenges

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Due to geographical proximity and trade links with China, Southeast Asian countries were among the first to be exposed to and affected by COVID-19. However, despite shared challenges including protecting population health and economic security, policy responses by national governments have been varied and remain so a year into the pandemic. This article critically reviews Southeast Asian countries’ approaches to COVID-19 with reference to individual country experiences and Association of Southeast Asian Nations. We discuss key policy responses: leadership, public risk communications, health system preparedness and resilience, economic support and social protection, aid and global health diplomacy, digital technologies, and the region’s multilateral response.

Key words: Association of Southeast Asian Nations, COVID-19, economics, health system, pandemic, Southeast Asia

JEL codes: I18, P46, P48

1. Introduction

Founded in 1967, the Association of Southeast Asian Nations (ASEAN) aims to promote regional growth and stability through intergovernmental cooperation on economic, political, security, educational, and sociocultural matters of interest among its 10 member states. Prior to the global pandemic, the 10 countries that make up ASEAN – Indonesia, Thailand, Malaysia, Singapore, the Philippines, Vietnam, Laos, Cambodia, and Brunei Darussalam – had a combined estimated population of 662,012,000 and had risen to fifth place among the largest economies in the world, with nominal gross domestic product (GDP) estimated at $US3.0 trillion and a regional GDP growth rate since 2011 of close to 5.0% versus global GDP growth of

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below 4.0% (United Nations, Department of Economic and Social Affairs, Population Division, 2019).

Due to their geographic proximity and links with China, Southeast Asian countries were among the first to be exposed to COVID-19. As of February 2021, more than 2.4 million cases and 50,000 deaths have been reported in (ASEAN Biodiaspora Virtual Center, 2021). Managing the pandemic has tested the capacity of ASEAN countries’ health and social care systems, already under the pressures of aging and expansion of universal health coverage. Countries have been stretched to meet COVID-19’s acute care demands while reallocating scarce laboratory and community health resources toward testing and tracing. All were exposed to the economic consequences of the pandemic and its containment, especially countries dependent on tourism, trade in essential goods and services, and migrant labor. Falling investment, supply-chain disruptions, and global recession stoked unemployment, halted previous growth, and erased reductions in poverty, as ASEAN experienced its first regional contraction in over two decades.

However, despite these shared pandemic challenges, individual countries have taken differing paths that remain diverse over a year later. At the end of 2020, more than half of ASEAN’s COVID-19 cases came from Indonesia and about a quarter from the Philippines; in contrast, Laos, Brunei, and Cambodia had reported less than 1000 cases each (see Figure 1). National policy responses have varied from rigorously enforced full lockdowns in Singapore to relative “laissez-faire” in Myanmar, while resources expended range from $US30 million in Laos to over $US115 billion in populous Indonesia (Asian Development Bank, 2021b).

In this article, we first discuss a framework for considering disease control against the context of a broader, multidimensional policy response. We then present four country cases that illustrate the range of pandemic trajectories – starting with strong early performances by Malaysia and Vietnam versus crisis in the Philippines and Singapore and ending with continued challenges in Malaysia and the Philippines versus relative stability in Vietnam and Singapore. We then critically review approaches to COVID-19 in more depth with reference to this wide range of country experiences and the collective response through ASEAN.

2. Disease Control in a Multidimensional Policy Context

To provide a simple theoretical framework to illustrate the mechanisms through which a larger policy response affects country outcomes, we use the canonical epidemiological “SIR” model of infectious disease transmission (Kermack & McKendrick, 1927). This model divides the population into “susceptible,” “infected,” and “removed” states (that is, deceased or recovered/immune). Key control measures can be implemented to reduce transmission, that is the frequency of encountering the infected or the likelihood of infection, with the result of decreasing the number of new infected. These measures include test-and-trace, quarantines, movement control measures, as well as mask-wearing. Other measures can reduce severity, notably access to health care, which decreases
welfare loss during infection and likelihood of progressing to death rather than recovery. Notably, measures such as vaccination reduce both transmission and severity.

However, effectiveness also depends on implementation, which in turn relies on compliance and enforcement. Moreover, governments are concerned not only with short-term pandemic control but the long-term post-pandemic future. Control measures therefore are embedded within broader, multidimensional policy supports. While overall resources are key determinants of success, other government-led factors shape the roles played by all stakeholders: citizens, firms, health system actors and international actors (other governments and international organizations). At the highest level, leadership and governance affects all aspects of policymaking and execution. Economic support and social protection to firms and consumers directly affects short-term compliance as well as long-term recovery. While public communication also reinforces compliance with transmission-reducing measures and takeup of care. Health system preparedness and agility enables access to care, and is further complemented by the use of technology to increase the effectiveness and efficiency of control measures. Finally, with respect to external relations, governments may unilaterally draw on or provide aid to bolster resources or build goodwill for the future as part of global health

Figure 1  COVID-19 epidemiological curve among ASEAN member states as of December 1, 2020.
diplomacy, or act multilaterally via platforms that may enable communication, coordination, resource pooling, or collective action.

We next examine our four countries through this lens. While these countries varied significantly in pre-COVID background (Table 1), we describe strengths and limitations underlying key disease control measures, including early stages of vaccination (Table 2) and the broader supports (Table 3) that were common across different levels of income and health system resources, suggesting the importance of policy as well as initial conditions.

3. Country Experiences with Disease Control

3.1 Malaysia
Malaysia reported its first cases in January 2020. In February, a four-day religious gathering of over 14,000 devotees became a super-spreader event. Following COVID-19 deaths on March 17, the government imposed a movement control order (MCO) on March 18, prohibiting mass movements and gatherings, restricting travel, instituting mandatory quarantine for all inbound travelers, and closing all nonessential services. In

Table 1 Summary of country characteristics and health care capabilities pre-COVID-19

| Country’s characteristics†,‡ | Malaysia | The Philippines | Singapore | Vietnam |
|-----------------------------|----------|-----------------|-----------|---------|
| Population Income           |          |                 |           |         |
| Population                  | 32 million | 108 million     | 5.7 million | 96 million |
| Income                      | Middle-income | Lower middle-income | High income | Lower middle-income |
| GDP per capita (2019)       | $11,414.20  | $3485.10        | $65,233.30 | $2715.30 |
| Health expenditure per capita, USD (2018) | $427.22  | $136.54        | $2823.64 | $151.69 |
| Domestic general government health expenditure (as % of current health expenditure, 2018) | 51.18% | 32.65% | 50.35% | 45.56% |
| Hospital beds (per 1000 people) | 1.86 (2015) | 0.99 (2014) | 2.40 (2015) | 2.60 (2014) |
| Physicians (per 1000 people) | 1.54 (2015) | 0.6 (2017) | 2.29 (2016) | 0.83 (2016) |
| Death rate, crude (per 1000 people, 2019) | 5.17 | 5.92 | 5 | 6.38 |
| Age dependency ratio (2020) | 44.16 | 55.17 | 34.50 | 45.05 |

†World Bank Open Data (n.d.).
‡Our World in Data (n.d.).
GDP, gross domestic product.
May, numbers had fallen and most economic sectors were reopened with social distancing measures in place, followed by resumption of interstate travel and religious gatherings. Compulsory mask-wearing was introduced in July following the emergence of new clusters, leading to a sustained period of low transmission. A new surge began in September 2020, after a snap election with mandatory in-person voting in the East Malaysian state of Sabah, drawing over a million voters (Wai et al., 2021). On November 9, 2020, a Conditional MCO was reinstated. In January, the King approved the declaration of a state of emergency until August 2021 to address COVID-19. Since then, the government has periodically enforced and relaxed different types of MCO across states, depending on case numbers (see Table 3).

Table 2  Key disease control measures implemented to control the spread of COVID-19

| Movement/mobility restrictions, business and school closures | Malaysia | The Philippines | Singapore | Vietnam |
|-------------------------------------------------------------|----------|-----------------|-----------|---------|
| Border control                                              |          |                 |           |         |
| Ban of travelers from epidemic areas                       | Yes      | Yes             | Yes       | Yes     |
| Mandatory quarantine                                        | Yes      | Yes             | Yes       | Yes     |
| Mask-wearing mandate                                        | July 2020| April 2020      | April 2020| January 2020 |
| Cost of testing‡,§                                          | RM 30–50 (Malaysians) ($US7–12) | PHP3800 (price cap in public labs) ($US77) | Free initially $US50 (rapid tests) ($US37) | Free for anyone entering Vietnam ($US15–25) |
| (foreigners) ($US14–60)                                     | RM 60–250 (foreigners) ($US14–60) | PHP5000 (price cap in private labs) ($US101) | $200 (price cap for RT-PCR tests) ($US148) | |

Vaccination rate (share of population fully vaccinated against COVID-19, as of June 14, 2021)§

| Malaysia | The Philippines | Singapore | Vietnam |
|----------|-----------------|-----------|---------|
| 4.37%    | 1.74%           | 34.03%    | 0.06%   |

‡Ministry of Health, Malaysia (2020).
§Department of Health, Philippines (n.d.).
§Our World in Data (n.d.).
Malaysia has taken a two-pronged vaccination approach, dealing with pharmaceutical companies, and negotiating with the COVID-19 Vaccines Global Access (COVAX) facility. In January 2021, Malaysia agreed to purchase 18.4 million doses of Russia’s Sputnik V and China’s Sinovac vaccines. All vaccines will be distributed free, in phases: the first phase covers frontline workers while the second covers vulnerable groups including those aged 60 and above and those with infectious and/or noncommunicable diseases. The third phase covers those of working age and will run until the end of 2021 or early 2022. Foreign nationals residing in Malaysia will also be eligible, including irregular migrants (Reuters, 2021e).

3.2 The Philippines
After reporting its first imported case in January 2020, restrictions in the Philippines were placed on travelers from mainland China, Hong Kong, Macau, and Taiwan, and outbound travelers to South Korea. However, full lockdowns and travel bans were initially delayed due to feasibility concerns in highly urbanized, densely populated Metro Manila and the Philippines is heavily reliant on tourism and its overseas workforce.

The Philippines was placed under a state of public health emergency and after the first COVID-19 death in March 2020, the travel ban was extended to all countries with local transmission. The emergency powers enabled by two Bayanihan laws grant the President additional authority to combat the pandemic. A state of calamity was announced, with Luzon Island instituting school closures, curfews, and restrictions of mass gatherings. A mask-wearing mandate was implemented in April 2020. Effective February 18, 2021, international travel restrictions were lifted with only foreign nationals requiring facility-based quarantine and COVID-19 testing (Ministry of Foreign Affairs, Singapore, 2020). The COVID-19 situation remains dire to date (see Table 3).

The Philippines vaccine procurement planning was delayed until January 2021; its phased vaccination program with donated Sinovac vaccines began in March 2021 (Reuters, 2021b; Reuters, 2021d). Vaccines were also acquired through the COVAX Facility and the Asian Development Bank (ADB) Asia Pacific Vaccine Access Facility (APVAX) (ADB, 2021a; Reuters, 2021d).

3.3 Vietnam
In Vietnam, preparations preceded the first actual official case; on January 20, 2020, Vietnam established a national COVID-19 Response Plan and Technical Treatment and Care Guidelines and prepared the public health care system to test and treat incoming cases. An Emergency Epidemic Prevention Taskforce Group was formed to direct and coordinate different levels of government (Ha et al., 2020). On February 1, after six confirmed cases, the prime minister signed a decision declaring a national epidemic with the support of the Communist Party and the National Assembly. The activation of the Emergency Public Health Operations Center provided mechanisms
Table 3 Key dimensions of the broader policy response

| Leadership in political context | Malaysia | The Philippines | Singapore | Vietnam |
|---------------------------------|----------|----------------|-----------|---------|
| political context               | Lack of mandate amidst political transition | Political challenges arising from “strongman” model | Reinforced legitimacy and solidarity amidst crisis | Effective leadership amidst one-party system |
| Economic and social protection (approx. as of Dec 2020) | MYR300 billion ($US75 billion) | PHP165 billion ($US30 billion) | SS100 billion ($US75 billion) | VND283 trillion ($US12.2 billion) |
| Public Communications | Bureaucracy at the forefront, but with political interference | Criticisms on information transparency | Defensive pessimism | Extensive, early implementation of communications strategy |
| Health System Preparedness and Resilience | Moderate but overwhelmed | Weak | Strong, with exception during outbreak in migrant worker dormitories | Strong |
| National technology platform | MySejahtera | NA, lack of coordination | TraceTogether and other technologies | Bluezone and other technologies |
| Aid received | MYR85 million ($US19.93 million) | PHP250 billion ($US1.885 billion) | – | VND13.6 trillion ($US586 million) |
| Aid contributions | Medical supplies to Palestine | $US500k to WHO, and medical supplies worldwide | Medical supplies worldwide |
for the provincial Centers for Disease Control to prevent and control COVID-19 through case detection, isolation, tracing cases, and surveillance measures. Shortly after, flights between Chinese and other epidemic areas to Vietnam were suspended, crowds were banned, mask-wearing was mandated, schools were closed, and contact tracing operations commenced.

By March, Vietnam had suspended all international flights and required 14-day, mandatory institutional quarantine on arrival for all, mobilizing the military and local governments to provide free testing, meals, and amenities. Vietnam was the first country in the world to apply medical declarations, mandating them for all entrants from China from January 2020 and for all arrivals from elsewhere in March (Malhotra, 2020). The government implemented nationwide social isolation measures from April 1 to 15, 2020 (Ha et al., 2020), and subsequently has contained localized outbreaks with partial lockdowns. From February 1, 2021, all travelers must undergo medical checks and a mandatory 21-day quarantine (Visit Vietnam: The Official Tourism Website of Vietnam, n.d.). Given its sizable population and a shared land border with China, Vietnam has managed to keep cases and deaths relatively low (see Table 3).

Vietnam has relied mostly on Oxford-AstraZeneca vaccines and on vaccines from the COVAX Facility (Reuters, 2021a, 2021c, 2021f). The vaccination campaign prioritizes frontline health care workers, followed by essential personnel, and then older adults aged 65 and over by the end of the third quarter of 2021 (Channel News Asia, 2021). Vietnam is also working to develop its own “NanoCovax” (Le & Thu, 2021).

3.4 Singapore
Singapore’s pandemic response built on its relative wealth and the benefit of lessons learned from past outbreaks of SARS and avian flu. After the first confirmed case in January 2020, the government raised the nation’s Disease Outbreak Response System Condition (DORSCON) level to Orange, signaling heightened alert. As case counts increased, a Multi-Ministry Taskforce, with representatives from across the health, manpower, finance, trade, and industry sectors, was established to lead the national COVID-19 response. A partial domestic lockdown was implemented from April 7 to June 1, 2020, keeping essential workplaces and services open but closing educational facilities, suspending religious activities, restricting movement and gatherings, and imposing physical distancing. Mask-wearing was mandated in April 2020, bolstered by free nationwide distribution of reusable masks. In late April, a surge occurred among migrant workers living in communal dormitories. The second wave, with more than 1000 cases a day, dwarfed the first and was met by a concerted effort to isolate, test, and treat dormitory populations while simultaneously re-opening schools and businesses with safe distancing measures in place in late June 2020.

As an import-dependent city-state and global travel hub, Singapore has continued to maintain strong quarantine protocols while actively pursuing “reciprocal green lanes” and safe travel corridors for essential and business travel. The evolving global
situation, however, has stymied progress: a planned air travel bubble with Hong Kong and an air travel pass for Vietnam are both deferred/suspended until further notice (Immigration and Checkpoints Authority, Singapore, n.d.). Since December 2020, Singapore allowed for re-openings of most business sectors and social gatherings of up to eight individuals. Singapore has reported the least deaths among the four countries with the vast majority of cases from dormitory-resident migrant workers (see Table 3).

Singapore was the first Asian country to receive the Pfizer-BioNTech vaccine in December 2020 and has also ordered vaccines from Moderna and Sinovac. Vaccination for health care workers began in December 2020, followed by seniors aged 70 and above in January 2021, and subsequently critical workers. Singapore plans to provide free vaccination nationwide by the third quarter of 2021, including the migrant worker population.

4. Assessing the Broader Policy Response

The diverse experiences of these four countries with disease control reflect a pre-existing background of geopolitical and socioeconomic heterogeneity, but also other elements of the policy environment. Below, we assess elements of broader policy response to COVID-19 in detail for each country, both in the domestic and international sphere (summarized in Table 3).

4.1 Leadership and governance

The ability to plan and implement a comprehensive multisectoral response relied heavily on national leadership, which manifested in significantly different forms.

In Malaysia, the beginning of the COVID-19 epidemic coincided with a major political transition, following then-Prime Minister Mahathir Mohamed’s sudden resignation in February 2020 and the subsequent overturn of the democratically elected Pakatan Harapan coalition government. The takeover by a new alliance led by current Prime Minister Muhyiddin Yassin represented a return to Malay nationalist politics associated with the regime of ex-Prime Minister Najib Razak, previously ousted under the shadow of the 1 Malaysia Development Berhad sovereign wealth fund corruption scandal. While continuing political uncertainty and perceived lack of a mandate among segments of the public have dampened government credibility.

In Singapore, national solidarity around COVID-19 has been an underlying theme from the start, recalling SARS as a national watershed event. In July 2020, a month after the nationwide circuit breaker, the government called for elections. Government leadership was positioned as responsible for dealing with challenges up ahead and despite a weakened popular vote showing, the ruling party’s political legitimacy remains high.

In the Philippines, the Duterte administration adopted a national security-led response. The military and the police mobilized to lead the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF). Political concerns
manifested early as IATF members were replaced following criticism of the administration’s decision-making. The national response has been further complicated by alleged human rights abuses, scandals around the national health insurance agency and allegations of preferential access to unapproved vaccines. Repeated calls for the Health Secretary’s resignation have been made, while various localities (for example, Manila, Pasig) have independently implemented measures to address local outbreaks, including vaccine deals (Rappler, 2021). Although polls suggest continued and possibly rising popular approval for the administration, the President remains publicly at odds with the IATF over reopening, while vaccine rollout has been reportedly met with wariness around China’s influence on the current administration (Robles, 2021).

In Vietnam, facilitated by the one-party state, Prime Minister Nguyen Xuan Phuc and his administration also declared war on COVID-19 with the public support of the Communist Party and the National Assembly, invoking national unity with mottos like “fighting the epidemic is like fighting against the enemy” (Jones, 2020). While centrally led, strong links to provincial implementation committees ensured control of “four on-sites” – leadership, human resources, materials and supplies, and logistics (Nguyen et al., 2021) at the local level. The relative success of pandemic control reinforced public trust in the government – a 2020 poll found more than 60% of Vietnamese supported the government’s approach, the highest among over 45 countries (Pollack et al., 2020).

4.2 Economic support and social protection

All four countries have implemented efforts to keep their national economies afloat and provide social safety nets, with large economic supports relative to health spending.

Since February 2020, Malaysia has spent at least MYR113 billion ($US26.3 billion) for COVID-19 response; the share of income support (MYR106.6 billion) is considerably larger than the support for health interventions (MYR6.4 billion) (ADB, 2021b). Additionally, the Malaysian government has undertaken a series of stimulus packages amounting to over MYR290 billion ($US67 billion) that provide tax incentives, financial support for businesses, and wage subsidies to bolster the negative economic impacts of the pandemic. However, Malaysia’s economy faces challenges even with the introduction of the social protection schemes due to high living costs, sluggish growth, and low saving rates among the population even pre-pandemic. At the first onset of the first MCO in March 2020, the World Bank reported that most Malaysians had only enough savings to live for 1–2 months, and for most self-employed persons, it was less than a month (Simler, 2020).

The Singapore government’s fiscal response has been sizable, with disbursement of SGD100 billion ($US75 billion) combined from four stimulus packages funded by an unprecedented drawing down of its national reserves. Prioritizing both welfare and business continuity, support included cash grants for citizens and households, wage subsidies, and corporate tax relief. Singapore has been incorporating relatively robust social protection schemes ever since the 2003 SARS epidemic and the 2008
|                          | Malaysia          | The Philippines | Singapore        | Vietnam          |
|--------------------------|-------------------|-----------------|------------------|-----------------|
| **COVID-19 situation**   |                   |                 |                  |                 |
| First case               | January 25, 2020  | January 30, 2020| January 23, 2020 | January 20, 2020|
| Average number of cases  | 7653.29           | 6685            | 25               | 242             |
| per day (as of June 1, 2021) |                 |                 |                  |                 |
| Confirmed cases (as of June 1, 2021) | 579,462 | 1.24 million | 62,069          | 7625            |
| Deaths (as of June 1, 2021) | 2867             | 21,012          | 33               | 48              |
| **Post COVID-19 situation** |                 |                 |                  |                 |
| COVID-19 budget (share | $99,073.51 million (30.07%) | $30,323.34 million (8.59%) | $101,072.59 million (30.52%) | $26,968.24 million (7.92%) |
| of GDP                   |                   |                 |                  |                 |
| Unemployment rate        | 4.6%              | 3.4%            | 5.2%             | 2.3%            |
| (2020)                   |                   |                 |                  |                 |
| GDP growth (2020)        | −5.6%             | −9.6%           | −5.4%            | 2.9%            |
| GDP growth forecast      | 6%                | 4.5%            | 6%               | 6.7%            |
| (2021)                   |                   |                 |                  |                 |

1ADB (n.d.) (data updated as of May 31, 2021).
2ADB (2021d)
3ADB (2021c).
4ADB (2021c).
GDP, gross domestic product.
Global Financial Crisis, and such packages have arguably allowed it to prioritize both “lives and livelihoods” (Ho, 2021), although further analysis remains needed to assess the extent to which the stimulus packages were efficiently and equitably distributed.

In the Philippines, an initial PHP2 billion was allotted by the Department of Labor and Employment before a PHP27.1 billion budget was allocated for sectors affected by COVID-19, PHP14 billion of which was allocated to tourism (CNN Philippines, 2020a, 2020b). An additional PHP629.9 billion has been earmarked for income support, including subsidies for low-income families and employees of small businesses, boosting buffer stock of essential goods, assistance to Overseas Filipino Workers, and an emergency employment program for informal sector workers. About PHP165 billion more ($US3.4 billion) was allotted for pandemic response and recovery in September 2020 under the second Bayanihan law (CNN Philippines, 2020d). Critics of the Duterte administration suggest that sizable cash benefits could be responsible for the President’s strong continued approval throughout the pandemic. Notably, a significant amount of Bayanihan funds remain unused to date.

Vietnam has spent VND283 trillion ($US12.2 billion) on a social protection package to support tax deferrals and policy changes, tax rates reduction, wage support and subsidies to individuals, households, and businesses, and indirect income support, focusing in part on poor/near poor households and the recently unemployed (ADB, 2021b). Due to the short suspension period of Vietnam’s nonessential services, the pressure to rely on economic support and social protection packages from the government was significantly relieved.

Although the long-term impact of these efforts clearly remains to be seen, Table 4 shows how the subsequent experiences of short-term unemployment and projected growth have varied across these countries.

4.3 Public communications

Amid complex and evolving conditions on the ground as well as significant threats of misinformation and pandemic fatigue, a communications strategy that could effectively deliver disease risk communications while bolstering public sentiments and confidence in government was critical. Such strategies have been critical not only in promoting mask-wearing or social distancing, and are now crucial in addressing vaccine hesitancy.

Despite political instability, the Malaysian government was able to deploy a consistent risk communication approach, with Health Director-General Noor Hisham Abdullah emerging as a familiar, apolitical leader representing health system frontline health care workers and a trusted conveyor of new data and evidence (Wai et al., 2021).

In the Philippines, official channels include Healthy Pilipinas, a Facebook page supported by the government and the COVID Alis sa Pamilyang Wais (“Family Smarts Keep COVID Away”) campaign. The Bayanihan laws also require the President to conduct a weekly public report on the state of COVID-19 response, although some have perceived these as opportunities for threatening citizens and critics with force, rather than being transparent and informative about government action.
In Singapore, briefings from the quickly formed Multi-Ministerial Task Force and regular multilingual national addresses by the Prime Minister formed the foundation for transparent, culturally sensitive crisis communication grounded in “defensive pessimism” (Wong & Jensen, 2020). Detailed daily information on case numbers, clusters, and the circumstances of each confirmed case is shared publicly, including via opt-in WhatsApp or Telegram (Sagar, 2020). Disease risks are framed as serious, persistent, and not to be underestimated, and with emphasis on evidence, science, transparency, and access to information.

In January 2020, Vietnam had already begun implementing its mid-term plan for communicating health risks for 2020–2025, when many other nations had yet to perceive the virus as a major threat. On February 5, warnings were made publicly available through all media platforms. The government organized a vigorous public awareness campaign including regular messages about personal preventive measures sent to citizens, and in an innovative twist, in late February 2020, the National Institute of Occupational Safety and Health released “Ghen Co Vy” (“jealous coronavirus”), a pop song remixed into a handwashing public service announcement that led to a popular dance challenge on the video-sharing social networking platform TikTok. In addition, a campaign to identify and penalize online misinformation was also conducted.

4.4 Health system preparedness and resilience

As countries found themselves in various stages of pre-existing health system capacity (Table 1), forward planning and investments in the necessary public health and medical infrastructure became evident advantages. A resilient health care workforce and multisectoral cooperation became critical pillars of defense.

Both Singapore and Vietnam’s experiences reflect lessons learned from SARS and H1N1. In Singapore, the SARS legacy includes the DORSCON framework to guide pandemic response and the National Centre for Infectious Diseases, a 330-bed purpose-built facility designed to strengthen infectious disease management, prevention, and outbreak management capabilities. Both these resources allowed a well-planned pandemic response. In the early pandemic, the costs of testing, treatment, and quarantine were publicly funded to enable swift access. On the ground, the government activated public-private partnership via the Public Health Preparedness Clinics, a network of clinics that consolidate the primary care response to public health emergencies. Meanwhile, the migrant workers dormitory outbreak was contained by mobilizing significant resources and facility lockdowns. This raised broader, still-open questions around health equity and responsibility for living conditions and employee welfare.

Vietnam’s post-SARS investment also included developing a public health emergency operations center, a public health surveillance system and a rapidly implemented epidemic management plan. Hospitals nationwide were prepared with appropriate protocols, with selected regional centers for severe case management. In short order, regional therapeutic task forces were established, personal protective equipment was stockpiled, and infection control measures were reinforced at hospitals, while emphasizing that “saving lives is prioritized above consideration of the economic loss.” After the initial months, the military
was deployed to assist. All treatment was covered by the National Health Insurance for Vietnamese citizens.

Conversely, in the Philippines, despite funding for medical equipment and supplies, personal protective equipment, COVID-19 coverage through PhilHealth, and compensations for private facilities, the capacity to trace, test, and treat remained a key constraint, leading to a halt in sending health care workers abroad to avoid a local health workforce shortage (CNN Philippines, 2020c). Malaysia’s health care system similarly received relatively sizable government funding support for COVID-19 (MYR6.4 billion) but has been overwhelmed by the persistently high caseloads, leading to growing concerns about provider burnout and arrangements with private health care institutions to provide additional beds and ICU facilities.

4.5 Technology adoption
Most Southeast Asian countries have harnessed technology in some way as part of their national COVID-19 responses – whether for mass communications, contact tracing, surveillance, or public service delivery. Singapore introduced TraceTogether, a Bluetooth-based contact tracing app, and SafeEntry, a cloud-based digital visitor registration system to facilitate contact tracing and identification of COVID-19 clusters. As noted, the government embarked on an information campaign via Telegram and WhatsApp. The pivot to online service delivery was significant: school closures were accompanied by an electronic home-based learning system. In the health care system, an online COVID-19 symptom checker was rolled out, together with primary care-based telecare programs. Government support schemes were delivered by electronic vouchers and through direct deposits. Additionally, assistance schemes were launched to enable businesses to go online, especially small- and medium-sized enterprises.

Similarly, in Malaysia, the MySejahtera mobile app was developed to facilitate nationwide contact tracing efforts and now acts as a portal for the national vaccination program. In Vietnam, the government deployed Bluezone, a contact tracing mobile app, while another mobile app, NCOVI, collects self-reported daily health status and allows reporting for suspected COVID-19 cases (Ministry of Information and Communications of the Socialist Republic of Vietnam, 2020). As of August 2020, population uptake of MySejahtera was reportedly 60% and Bluezone was approximately 14%. Despite high levels of trust, uptake of Singapore’s TraceTogether was reported to be only approximately 70% in December 2020. To improve uptake, TraceTogether has been integrated into wearable tokens distributed to nonphone users. The ability to leverage existing online/mobile platforms to deploy solutions rapidly and cost-effectively has been a major advantage. However, concerns about privacy and data protection remain, as do questions around the quality of implementation, access, and equity in countries facing a significant digital divide.

Meanwhile, the Philippines illustrates the uneven take-up of technology. The Feasibility Analysis of Syndromic Surveillance using Spatio-Temporal Epidemiological Modeler (FASSSTER) platform has been successfully introduced as a local monitoring
platform for health crisis management, allowing for sophisticated analysis and data visualization (Dillera, 2020). On the other hand, Philippines does not yet have a widely adopted contact tracing system, continuing to rely on manual data entry in some areas. Several contact tracing apps were launched by various organizations and agencies, including the Department of Health and the IATF (Staysafe) and the Philippine Red Cross (RC143), but none have been nationally adopted despite Staysafe being mandated by the IATF (CNN Philippines, 2020e, 2021). Attempts to consolidate these systems through the WHO’s proposed COVID-KAYA epidemiological surveillance information system have proven difficult (WHO, 2020).

4.6 International aid and global health diplomacy

External financing has been a significant enabler for Malaysia (at least $US19.93 million in loans and grants from the ADB and United States Agency for International Development) the Philippines (at least $US4.9 billion in loans and grants, from various multilateral agencies) and Vietnam (over $US586 million in loans and grants from the ADB) (ADB, 2021b).

COVID-19 has offered the opportunity for countries to pursue global health diplomacy. Singapore has made notable efforts: the government contributed $US500,000 to the WHO’s Strategic Preparedness and Response Plan for COVID-19, sent two tranches of aid to China, and delivered relief to regional neighbors Indonesia and Myanmar (Ong, 2020). Singapore has also donated test kits, hand sanitizers and other medical supplies to more than 35 countries worldwide as part of its “test kit diplomacy” (Temasek Foundation, 2020; Amul & Pang, 2021).

As local manufacturing capacity has expanded, Vietnam began to deliver COVID-19-related medical equipment globally to neighbors Laos, Cambodia, Indonesia, and China, as well as others further afield such as the United States, France, Germany, and Cuba. Vietnam has also donated $US50,000 to support Myanmar’s COVID-19 response. Finally, Malaysia has been a selective donor, extending donations of medical supplies to Palestine (Bernama, 2020).

4.7 Multilateral action and its limits

In the early pandemic, ASEAN’s responses were swift, and focused primarily on multi-sectoral communication and information-sharing. Four days after China’s notification of the novel coronavirus to the WHO on December 31, 2019, the ASEAN Secretariat Health Division alerted ASEAN senior health officials, triggering a series of virtual pandemic response dialogues. Other regional public health platforms rooted in structures and systems developed in response to SARS were activated, including the ASEAN Emergency Operations Centre (EOC) Network for Public Health to provide daily situational updates, Contact Points of the ASEAN EOC Network and the ASEAN Plus Three Field Epidemiology Training Network. The ASEAN BioDiaspora Regional Virtual Centre (ABRVC) generates data analytics and visualization while the ASEAN
Risk Assessment and Risk Communication Centre disseminates preventive and control measures, combatting false news and misinformation.

Simultaneously, ministerial economic, health, foreign affairs, and tourism bodies worked to intensify multisectoral cooperation, including the ASEAN Plus Three (China, Japan, and South Korea). ASEAN’s Guidelines on the Provision of Emergency Assistance were used to help member states repatriate citizens to their home countries as national borders closed. The ASEAN Economic Ministers issued a statement on collective action leveraging technology, digital trade, and existing trade facilitation platforms to ensure the smooth flow of goods and services, protect critical infrastructure and trade routes, and allow the continued operation of businesses. The first ASEAN Coordinating Council Working Group on Public Health Emergencies (ACCWG-PHE) was held on March 31, followed by a Special ASEAN Summit on Coronavirus Disease in April, espousing key measures including strengthening public health coordination, preserving supply chains and flows of essential goods, collectively mitigating socio-economic impacts, and allocating resources to a COVID-19 ASEAN Response Fund to support research and procurement of medical supplies. The ACCWG-PHE also oversaw other measures, including the Regional Reserve of Medical Supplies (personal protective equipment) and ASEAN Standard Operating Procedures for Public Health Emergencies.

ASEAN has also pursued multilateral collaboration with external partners. In November 2020, ASEAN concluded the Regional Comprehensive Economic Partnership Agreement with Australia, China, Japan, Korea, and New Zealand, a critical step toward post-COVID-19 economic recovery. The ASEAN Secretariat has committed to working with both the WHO and the European Union to improve ASEAN member-states’ health systems preparedness, response, and communication capabilities.

There is unique value in these communication and collaboration mechanisms: for instance, the ABRVC’s Situational Analysis Report provides authoritative regional data on the state of COVID-19 in ASEAN, which complements national risk assessments and overcomes issues around data disjoints in WHO updates rooted in the split of ASEAN member-states among two WHO regions (Western Pacific and Southeast Asia).

However, it is critical to understand that ASEAN’s role is circumscribed by its inherent nature and resources and the roles of other multilateral organizations. ASEAN seeks to promote and facilitate integration, rather than a supranational union in which member states cede aspects of authority or sovereignty to the group. ASEAN’s fundamental principles of noninterference and national sovereignty of member states rule out a fully integrated cross-national ASEAN-level response to COVID-19 (ASEAN, n.d.).

In the case of regional travel, ASEAN’s Regional Virtual Centre generates risk assessment reports on COVID-19 for air travel and shares ASEAN-wide travel advisories in collaboration with Bluedot, the Philippines’ Department of Health, the ASEAN Secretariat and the Government of Canada. However, further coordination is limited: although the phased establishment of an ASEAN-wide travel bubble was
suggested by Indonesia, this has not progressed. Instead, countries in the region with similar levels of control are establishing bilateral travel corridors.

In another instance, while the ASEAN COVID-19 Response Fund recently announced the intent to spend $US10.5 million to buy vaccines, participation in other global platforms related to vaccine access, notably COVAX, remains critical for member states. Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines, and Vietnam are eligible for assistance under the COVAX Advance Market Commitment (AMC) mechanism, while among the higher-income ASEAN member states, Singapore has announced its commitment of $US5 million to the AMC mechanism and co-chairs the Friends of the COVAX Facility initiative with Switzerland (Channel News Asia, 2020). Brunei and Malaysia have signed commitment agreements, while Thailand has submitted a nonbinding confirmation of intent to participate (GAVI, 2020).

5. Conclusions

At the time of writing in March 2021, the health and economic situation continues to evolve. Protecting population health, safety, and economic security remains a top priority for all ASEAN member-states. Against the backdrop of forced shutdowns of previously open borders, slowed regional trade integration, and greater insularity and protectionism in countries around the world, the critical need for international flows of goods, services, and persons and the value of a multilateral platform remains. Vaccination programs have begun as of the first quarter of 2021 and recent regional growth forecasts are relatively optimistic. However, the projected gains are uneven, leading to concerns about a “multispeed” recovery and widening socioeconomic disparities both across and within countries. At the same time, significant political uncertainty persists, evidenced for example by the fragile political situation in Malaysia.

In this complex context, attributing impact to any single one of the measures or supports discussed is challenging and beyond the context of present paper. However, the diverse outcomes in our sample to date are reflective of differences in broad approach that affect not only the trajectory of management to date but also suggest potential divergences in the roads to reopening and recovery.

Our findings also suggest that while initial resources matter, policy actions weigh strongly. In addition to underscoring the prime importance of decisive and credible leadership, there are several clear implications: countries should strive to maintain a pragmatic yet conscientious approach to balancing complex and changing risks and to espouse transparent communication and good governance regardless of levels of development. While present paper focuses on the period prior to the ramp-up of most vaccination programs, these lessons are critical as part of vaccine-specific strategies as well as of reflection and preparation for the next yet-to-be-known pandemic.

For all countries, the long-term consequences of both the disease itself and its control measures are still unknown, raising the distant specter of future physical, mental, or social costs yet to be realized. As the situation continues to evolve, it is important to
recognize that lessons from this pandemic will remain to be fully learned over decades to come, both for Southeast Asia and the rest of the world.

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