M E M O R A N D U M

To: Members, Association of Southeast Asian Nations (ASEAN) and esteemed guest nations

From: Raj Rajadhyaksha, Staff Director

Date: 05 February 2023

Re: ASEAN Summit on Digital Infrastructure, 18 March 2023

Improving Digital Infrastructure in ASEAN

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Section I—Introduction

ASEAN, in full the Association of Southeast Asian Nations, is an international organization established by original member states of Indonesia, Malaysia, the Philippines, Singapore, and Thailand in 1967 to foster economic growth, social progress, and cultural development to support goals of peace and security in the Southeast Asia geopolitical area. Essentially, they are Asia's Pacific counterpart of the European Union. The ASEAN region has a population of more than 600 million and spans a total area of 4.5 million square kilometres. In the modern age, ASEAN's chief goals centre on economic cooperation, the promotion of trade between members and the rest of the world, and joint research and development programmes across member governments.

Section II—Background Information

South East Asian economies are projected to grow upwards of 6.4% in 2022, with stable growth increments into 2023. During the pandemic, connectivity was affected at social, economic, and political costs. ASEAN members viewed the COVID-19 pandemic as a catalyst for their developmental agenda. Overall, ASEAN's internet infrastructure performed satisfactorily in comparison to the rest of the global scene, although the development of information and communication technology-related infrastructure is dispersed unevenly among and within countries. Typically, five factors are considered when improving data-related infrastructure, according to the Economic Research Institute for ASEAN and East Asia, "(i) network coverage, (ii) speed of internet connection, (iii) affordability, (iv) contents, and (v) cybersecurity." As ASEAN emerges from the pandemic stages, the recovery strategies must account for the development of infrastructure-related services. This region views the situation with urgency in both the ASEAN Comprehensive Recovery Framework as well as the Hanoi Declaration on the ASEAN Community's Post-2025 Vision. In a statement at the 28th ASEAN Socio-Cultural Community (ASCC) Council meeting, current ASEAN Secretary-General Dato Lim Jock Hoi affirmed that the Consolidated Strategy on the Fourth Industrial Revolution for ASEAN (2021) would be carried out with a 4IR Task Force Group, using cross-pillar coordination in implementing the three priority initiatives which are described as: Technological Governance and Security, Digital Economy and Digital Transformation of Society. Lim stresses that ASCC must continue to develop opportunities for digital transformation to support the region in post-pandemic recovery and improve the lives of citizens. Accelerating these efforts is critical to generating social and economic opportunities for people in the region and eliminating the social disparity in the BLOC.

Section III—UN Involvement

The United Nations Sustainable Development Goals 7-11 outline the goals of affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; and sustainable cities and communities, respectively. These goals mainly pertain to developments in global infrastructure and economic development. Goal 9, described as "Build resilient infrastructure, promote sustainable industrialization and foster innovation" has been mostly attributed to developing sustainable and innovative digital infrastructure. Target 9.C specifically is outlined as "Significantly increase access to information and communications technology and strive to provide universal and affordable access to the

Internet in the least developed countries by 2020." Although most SDG goals have a deadline of 2030, this indicator was set by 2020. The custodian agency for data in this segment is the International Telecommunication Union (ITU) with the cooperation of the World Bank. To accelerate this mission, the UN has partnered with NGOs such as Construction for Change for construction and the International Institute for Sustainable Development for planning and execution. According to data from the Internal Revenue Service in the United States, over 19 tax-exempt organizations in the US are working in partnership with UN SDG 9. Within developing nations, projects such as technology centers, crypto blockchain reinforcements, and further research into innovations within the digital sector have been conducted by these UN-backed NGOs.

Section IV—Possible Solutions

This committee will focus on solutions that address the development of infrastructure to support digital connectivity in the ASEAN region. Key points of address are

I. Coverage: Network coverage suffers greatly from more than 80% in Singapore to 22% in Lao PDR, leaving many in ASEAN with no internet connectivity. While more than 95% of the SEA population is covered by 2G technology in 2017, 4G mobile network infrastructure development and access to electricity are still prominent issues within the region that need to be resolved, especially within the CLMV countries (respectively: Cambodia, Laos, Myanmar, and Vietnam). It is important to consider that mobile networks in SEA are much better developed than fixed broadband networks. Geographical factors are a key obstacle to connectivity for many, especially in mountainous regions.

II. Speed: Average internet connection speeds vary widely within the region. For example, fixed-line connections in Singapore are 15 to 16 greater than found in Myanmar.

III. Affordability: Accessibility is an important factor, as the economically disadvantaged are spending larger percentages of their income on mobile data.

IV. Content and Services: ASEAN countries overall are typically similar in information and services provided, with the exception that some ASEAN members are highly developed in the financial technology and e-health sectors.

V. Trust: Cybersecurity and trust in the free flow of data is the cornerstone of a digital economy.

Innovative strategies for bettering rural connectivity are base station infrastructure (rather than the low coverage small cell model), backhaul planning (reducing the need for higher-cost urban deployment), utilizing renewable energy sources, and increasing satellite communication methods. A critical factor in generating mobile internet affordability is increasing mobile internet adoption. Improving regional privacy, security, and consumer protection laws through coordination in regulation must be applied across all borders.

Section V—Bloc Positions

Outside ASEAN: Countries included in this committee but outside the membership of ASEAN serve as important trade partners with ASEAN members and thus have a vested interest in an improvement in the digital infrastructure of the region.

Brunei: Brunei has sought advice from the Digital Economy Masterplan of 2025 to improve their digital infrastructure. Brunei's government sees the importance in enhancing their digital settings since it would diversify their economy and grow innovation within its region. These goals for their infrastructure is a part of Wawasan Brunei 2035, which is a collective vision the country of Brunei has for their development by 2035. However, the Covid-19 pandemic has hindered Brunei's process in this field.

Cambodia: The lower middle-income economy of Cambodia is highly dependent on agriculture in rural areas, although the country also sees exports in other industries, with a growing tourism market. Fixed line connectivity is not currently in place. However, the nation is anticipating the development of satellite-based internet services such as SpaceX's Starlink.

Indonesia: Indonesia has a digital "roadmap" for the years 2020-2024 to transform their region to contain more digital advancement specifically through infrastructure. For this country, Covid-19 has created a momentum for digital improvements that they continue to utilize. This country prioritizes the authorization of 4G infrastructure in at least 10,000 regions by 2022. They also plan on deploying a satellite named High Throughput Multifunction Satellite for the purposes of providing better internet connectivity all across the country.

Laos: The Laos's government has announced that they will put forth an initiative that ""will contribute to the development of [a] Digital Government Master Plan, Standards Framework of Digital Government as well as the pilot initiatives on Digital Government services." They prioritize the development of digital infrastructure used by the government before providing this type of technology to the country's civilians.

Malaysia: At the moment, digital adoption is relatively low and unevenly distributed throughout the business sectors in Malaysia. These businesses fall behind in upgrading their digital infrastructure but Malaysia's government is rapidly growing their digital framework. Malaysia devises a budget of 257.2 billion Malaysian Ringgit dollars toward the goal of augmenting the structure of technology within their boundaries.

Myanmar: In the last five years, Myanmar has increased their rates of digital usage and due to the growth of technological operation, the country has also created goals to spread this advanced technology to as many people in Myanmar as possible. From 2012 to 2016, the price of SIM cards went from 2500 dollars to less than 2 dollars. Political leaders are willing to put forth billions of dollars toward improving digital infrastructure, which is shown as strength as they progress with their plan.

Philippines: The Philippines is home to a booming telecommunications sector, with a highly English-adopting population and competitive practices in regulation. Investments from the World Bank and international sources are key to improving wireless communications development in the country.

Singapore: Singapore is one of ASEAN's most competitive economies, and the infrastructure of the nation has been described as "world-class" in its adoption of digitalization. The next generation of digital infrastructure within the county is generating a framework for intergovernmental cooperation on data policies, transactions, and digital identities.

Thailand: Thailand's progress with improving digital infrastructure has been slower than the other countries in ASEAN. They have invested only 4% of their GDP toward advancing their technological structure. Technological advances have been seen only in the services department through e-commerce because of the Covid-19 pandemic that occurred in recent years.

Vietnam: The government of Vietnam prioritized improving their digital framework. During the Covid-19 pandemic, the political representatives in Vietnam thought of technology as a solution to bring their country back to normalcy after quarantine. By ensuring that the country's citizens have technology everywhere, Vietnam states that their civilians will have a better socio-economic status and peace will be easier to achieve within their country.

Section VI—Questions That Should Be Taken Into Consideration

What emerging technologies can be utilized to improve digital infrastructure within mountainous regions, and what entities can support this development?

How can the costs of digital infrastructure development be mitigated?

What are the best solutions for nations to cooperate on cybersecurity measures?

Section VI—Helpful Sites and Resources

ASEAN—Magazine—The ASEAN Volume 23
bit.ly/IIMUN2023-ASEAN01 (Shortened URL from asean.org)

ASEAN—Report—Consolidated Strategy on the Fourth Industrial Revolution for ASEAN
[Download link at bottom of page]
bit.ly/IIMUN2023-ASEAN02 (Shortened URL from aadcp2.org)

Economic Research Institute for ASEAN and East Asia—Policy Brief—Improving Digital Connectivity: Policy Priority for ASEAN Digital Transformation
[Download link next to Adobe logo on middle of page]
bit.ly/IIMUN2023-ASEAN03 (Shortened URL from eria.org)

Sensors—Journal—Closing Connectivity Gap: An Overview of Mobile Coverage Solutions for Not-Spots in Rural Zones
bit.ly/IIMUN2023-ASEAN04 (Shortened URL from nih.gov)

World Economic Forum—Article—How to close Southeast Asia's financial inclusion gap
bit.ly/IIMUN2023-ASEAN05 (Shortened URL from weforum.org)

AITI—Report—Brunei Darussalam AITI Strategic Plan 2020 - 2025
bit.ly/IIMUN2023-ASEAN06 (Shortened URL from aiti.gov.bn)

International Trade Commission—Article—Indonesia: Digital Economy Opportunities
bit.ly/IIMUN2023-ASEAN07 (Shortened URL from trade.gov)

AlphaBeta Strategy x Economics—Report—Positioning Malaysia as a Regional Leader in the Digital Economy: The Economic Opportunities of Digital Transformation and Google's Contribution
bit.ly/IIMUN2023-ASEAN08 (Shortened URL from alphabeta.com)

Center for Strategic & International Studies—Article—Digitalizing Laos: Improving Government Transparency, the Business Environment, and Human Capital
bit.ly/IIMUN2023-ASEAN09 (Shortened URL from csis.org)

World Bank Group—Report—Myanmar: Investment Analysis and Implementation Options for Proposed Digital Government Project
bit.ly/IIMUN2023-ASEAN10 (Shortened URL from worldbank.org)

East Asia Forum—Article—Is Thailand ready for the digital economy?
bit.ly/IIMUN2023-ASEAN11 (Shortened URL from eastasiaforum.org)

Hanoi Times—Article—Vietnam prioritizes digital infrastructure development
bit.ly/IIMUN2023-ASEAN12

Potential search terms: ASEAN digital infrastructure, [country name] infrastructure, [country name] cybersecurity, [country name] ASEAN trade