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FINANCING SUSTAINABLE INFRASTRUCTURE **IN ASEAN**



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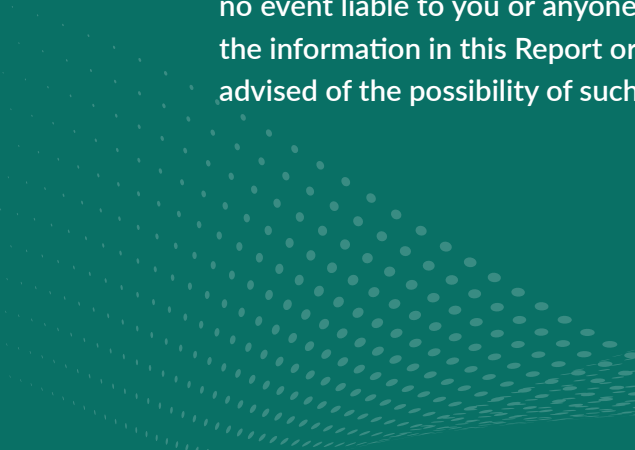
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CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	3
PART 1: CURRENT STATE OF PLAY IN ASEAN'S INFRASTRUCTURE	
Key Takeaways	7
1.1 Drivers behind ASEAN's infrastructure development	8
1.2 Financing sustainable infrastructure	9
1.3 Case studies of how selected ASEAN governments promote the financing and development of sustainable infrastructure	11
1.3.1 Indonesia	11
1.3.2 Thailand	12
1.3.3 Vietnam	13
1.3.4 Singapore	14
PART 2: ENVIRONMENTAL AND SOCIAL RISKS AND CHALLENGES	
Key Takeaways	16
2.1 ESG-related risks of infrastructure financing	18
2.1.1 Environmental risks	18
2.1.2 Social risks	20
2.1.3 Governance risks	23
PART 3: ENVIRONMENTAL AND SOCIAL STANDARDS, FRAMEWORKS AND PRINCIPLES	
Key Takeaways	24
3.1 Overview of the common international sustainability standards, frameworks and principles	25
3.2 Addressing key E&S risks through international sustainability standards, frameworks and principles	27
3.3 Addressing key E&S risks through ASEAN financial institutions' in-house sustainability standards, frameworks and principles	28
3.3.1 Industry initiatives	28
3.3.2 Sector-specific policies	29
3.3.3 Local laws as priority	31
PART 4: RECOMMENDATIONS AND BEST PRACTICES	
Overview	32
4.1 Singapore government and industry associations	33
4.2 ASEAN governments	34
4.3 Financial institutions	35
4.4 Financial services providers	35
CONCLUSION	36
ANNEX	37
REFERENCES	45
PARTICIPATING ORGANISATIONS	50

EXECUTIVE SUMMARY

ASEAN's massive infrastructure gaps can be bridged by green and sustainable finance. The region currently faces enormous infrastructure needs, which hinder rapid economic growth. At the same time, heightened global attention on climate change and international awareness of human rights issues have also shaped how stakeholders view and finance long-term projects like infrastructure. Green and sustainable financing can help address both economic and sustainability challenges, as it promotes the efficient flow of capital towards activities and projects that are more sustainable and responsive to climate concerns. In fact, the infrastructure sector holds one of the largest green finance opportunities in the region, estimated at US\$1.8 trillion from 2016 to 2030.

However, green and sustainable financing is currently lacking in ASEAN's infrastructure sector. At the regional level, ASEAN governments need to signal a stronger commitment to channel more green and sustainable financing to meet the massive infrastructure gaps. Moreover, at the national level, many ASEAN governments can do more to emphasise sustainability in how infrastructure is conceptualised and developed. This is a major concern as government financing contributes to 90 percent of infrastructure expenditure in Asia, compared to a worldwide average of 40 percent.

Singapore has a unique role to play due to our reputation, trust and expertise. The Singapore Institute of International Affairs (SIIA)'s 2017 report, "Collaborative Initiative for Green Finance in Singapore: Singapore as a Green Finance Hub for ASEAN and Asia" noted that Singapore has a strong foundation to move forward with green finance, considering its strengths as a financial hub, strong record on governance and environmental protection, as well as links to the region. Singapore is also involved in building infrastructure such as the Tuas Mega Port as well as Sembcorp Industries' Myingyan power plant in Myanmar. These can serve as promising examples to the region, to align infrastructure projects to environmental protection, social advancement and bankability considerations. With limited state budgets in many countries and the massive infrastructure needs in the region, there is an urgent need for the Singapore government and its counterparts in ASEAN to do more to attract green and sustainable financing from private sources.

One way for governments, financial institutions and project developers to unlock more capital for infrastructure is to develop a common language around what sustainable infrastructure looks like. This is especially critical for the power and transport sectors. The Asian Development Bank (ADB) estimated developing Asia's climate-adjusted investment needs in these two sectors to be US\$14.7 trillion and US\$8.4 trillion, respectively between 2016 and 2030.

Developing a common understanding on sustainable infrastructure involves first examining a comprehensive range of E&S risks. Beyond climate resilience, financiers and projects developers differ on the risks they consider. This study revealed there are five E&S factors that financial institutions consider when making decisions about infrastructure financing in Southeast Asia. The environmental factors often considered are (1) loss of biodiversity and (2) greenhouse gas emissions; the social factors commonly cited are (1) resettlement and compensation, (2) workers' health and safety and working conditions, as well as (3) inclusion of marginalised groups.

The existence of various sustainability standards used to evaluate projects also requires harmonisation. How people understand and manage the key E&S risks is influenced by their choice of standards, frameworks and principles. The common international standards referenced by the interviewees are the ADB's Safeguard Policy Statement, as well as the International Finance Corporation (IFC)'s Performance Standards on Environmental and Social Sustainability. Standards developed in-house by ASEAN financial institutions fall across a spectrum, with most of them referring to the UN Sustainable Development Goals.

Recommendations for different stakeholders

To improve different stakeholders' understanding of how key E&S risks should be viewed and addressed in the power and transport sectors in ASEAN, this report recommends:

Singapore Government and Industry Associations

1. The Singapore government could take the lead in ASEAN to set up a platform featuring a pipeline of local power and transport projects available for investments, and to disclose the results of the Environmental and Social Impact Assessments of each project.
2. The Singapore government and industry associations, such as the Association of Banks in Singapore, could work together to provide a standard E&S evaluation framework for the power and transport sectors.
3. Singapore's statutory boards, government entities and large companies should be encouraged to look at Green Financing as an option to raise funds.

ASEAN Governments

1. ASEAN governments could convene an Infrastructure Summit to emphasise the Master Plan on ASEAN Connectivity 2025 (MPAC 2025) as a regional blueprint for infrastructure projects in ASEAN, grow initiatives by each ASEAN member state and track sustainable finance flows to power and transport projects.
2. ASEAN governments, together with multilateral institutions and industry players, could train and equip workers with sustainability skills and knowledge in the renewable energy and sustainable transport sectors.
3. The ASEAN Secretariat could take the lead in developing a directory of green and sustainable funds for infrastructure projects in the region.

Financial Institutions

1. Financial institutions with an interest in ASEAN's power and transport sectors, should disclose their sustainability policies with the key E&S risks incorporated, as well as general guidelines on how they handle context-specific challenges in countries where they operate.
2. Financial institutions should cover the key E&S risks in their monitoring efforts and tailor the frequency of monitoring according to the duration of project construction.
3. Financial institutions could develop expertise in specialised financing, particularly infrastructure financing or green investments.

Financial Services Providers

1. Ratings agencies could develop a rating mechanism for the E&S impacts of power and transport projects.



INTRODUCTION

“Although Singapore may not be able to stop climate change by ourselves, we can contribute to solutions, and we must do our fair share. Then we can be credible asking others to reduce their emissions too, and work towards a global solution to climate change.”

Mr. Lee Hsien Loong
Prime Minister, at the National Day Rally
2019, 18 August 2019¹

Southeast Asia faces a long-standing challenge with the lack of good quality, adequate infrastructure. According to the ADB, the infrastructure gap in the ASEAN region from 2016 through 2030 is approximately US\$2.8 trillion, or US\$184 billion annually.² The lack of infrastructure connectivity continues to impede industrialisation and economic growth in many parts of Southeast Asia, as well as impact the quality of life for its people.³

However, the region may be at a turning point as infrastructure development appears to be the buzzword for many ASEAN governments today.

For instance, Indonesian President Joko Widodo, in his second and final five-year term, has indicated his commitment to continue his infrastructure programme. A specific focus is given to connecting existing infrastructure projects such as toll roads, railways and seaports.⁴ The Thai government has started the Eastern Economic Corridor Development

(EEC), which is part of its 'Industry 4.0' policy. In the Philippines, the Duterte Administration has also announced plans to spend US\$180 billion on infrastructure projects under its Build, Build, Build programme until 2022.

At the same time, heightened global attention on climate change and international awareness of human rights issues have also shaped how stakeholders view and finance long-term projects like infrastructure. Infrastructure projects ranging from economic infrastructure – such as telecommunications, roads, irrigation and electricity – to social infrastructure – including water supply, hospitals and schools – often come with their own set of environmental and social impacts during construction and operation.

This is where green and sustainable financing is key to help address both economic and sustainability challenges. Green and sustainable finance promotes the efficient flow of capital towards activities and projects that are more sustainable and responsive to climate concerns. In fact, the infrastructure sector holds one of the largest green finance opportunities in the region, estimated at US\$1.8 trillion from 2016 to 2030.

However, green and sustainable financing is currently lacking in ASEAN's infrastructure sector. At the regional level, ASEAN governments need to signal a stronger commitment to channel more green and sustainable financing to meet the massive infrastructure gaps. Moreover, at the national level, many ASEAN governments can do more to emphasise sustainability in how infrastructure is conceptualised and developed. This is a major concern as government financing contributes to 90 percent of infrastructure expenditure in Asia, compared to a worldwide average of 40 percent.⁵

Singapore has a unique role to play due to its reputation, trust and expertise. As noted in the SIIA's 2017 report, "Collaborative Initiative for Green Finance in Singapore: Singapore as a Green Finance Hub for ASEAN and Asia", Singapore has a strong foundation to move forward with green finance, considering its strengths as a financial hub, strong record on governance and environmental protection, as well as links to the region.⁶

The country is also involved in building infrastructure such as the Tuas Mega Port as well as Sembcorp Industries' Myingyan power plant in Myanmar. These can serve as promising examples to the region, to align infrastructure projects to environmental protection, social advancement and bankability considerations. With limited state budgets in many countries and the enormous infrastructure needs in the region, there is an urgent need for the Singapore government and its counterparts in ASEAN to do more to attract green and sustainable financing from private sources.

Back in 2017, the SIIA's green finance report recognised that multiple shades of green exist within Singapore's financial sector.⁷ This could be attributed to a wide range of actors, relatively new policies that are emerging in this area as well as differing levels of will and capacity among the financial institutions.⁸ While multiple shades of green still exist, the SIIA has since observed concrete efforts to shift away from non-green, polluting industries. These include efforts by DBS Bank, OCBC Bank and United Overseas Bank to stop financing new coal-fired power plants. At the same time, financial institutions are also extending a growing number of green and sustainability-linked loans in Singapore, which means that clients with sustainable and green credentials have access to a larger pool of capital today.

With growing pools of green and sustainable capital available, identifying how governments, financial institutions and project developers can unlock more capital for infrastructure is a crucial next step. While political risks and other factors are important to the bankability of projects, a common language around what sustainable infrastructure looks like, is also needed. Against this backdrop, the SIIA has undertaken a study to examine the baseline of financing sustainable infrastructure in ASEAN.

Currently, some define sustainable and resilient infrastructure as infrastructure that “integrates environmental, social and governance (ESG) aspects into a project’s planning, building and operating phases while ensuring resilience in the face of climate change or shocks”.⁹ Others also allude to sustainable infrastructure in terms of its purpose and functionality to enhance environmental, economic and social outcomes. These definitions underscore the immense power of infrastructure to advance sustainable development. In fact, the United Nations includes the potential of infrastructure in its proposal for the Sustainable Development Goals (SDGs) by making explicit references to sustainable and resilient infrastructure in two of the 17 SDGs.¹⁰

For the purpose of this report, “financing sustainable infrastructure” involves identifying and mitigating the E&S risks associated with infrastructure projects, with the aim of minimising negative E&S impacts throughout a project’s lifecycle. Doing so will improve the bankability and profitability of sustainable infrastructure projects.

Notably, the report focuses on risks instead of the positive and negative externalities of sustainable infrastructure projects. This stems from the SIIA’s observation that the region remains at an early stage of understanding sustainability, often through the lens of risks. In this respect, this paper suggests that at the minimum, governments and financiers should identify and address all relevant E&S risks in the power and transport sectors, for the projects to be considered sustainable.

The scope of this report is the power and transport sectors. This is because the ADB estimated developing Asia’s climate-adjusted investment needs in these two sectors to be US\$14.7 trillion and US\$8.4 trillion, respectively between 2016 and 2030.¹¹

In this report, the power sector encompasses conventional sources such as coal and natural gas, as well as renewable energy. As for the transport sector, this report will mainly examine physical infrastructure including ports, railways and roads. In addition, the power and transport sectors tend to involve construction. Some construction activities could be labour-intensive and entail labour and social risks such as health and safety.

By consolidating all the relevant E&S risks which financial institutions ought to consider when they finance power and transport projects in ASEAN, this report draws attention to the need for a comprehensive assessment of E&S risks. This will reduce the likelihood of governments, financial institutions and project developers encountering additional sustainability risks in the course of implementing the project, especially those which are material and could undermine the project’s profitability in the future.

In addition, how people understand and manage the key E&S risks is influenced by their choice of standards, frameworks and principles. Given the many international, regional and local standards,

frameworks and principles in place, having an additional ASEAN standard for the power and transport sectors may not be helpful at this juncture. Instead, the report recommends ways to improve how different stakeholders view and address the key E&S risks in these two sectors, without creating an entirely new set of standards. In this manner, the application of current standards – whether developed internationally or locally – can be done with better consideration for the ASEAN context.

Structure of the report

The report is organised into four parts:

PART 1: CURRENT STATE OF PLAY IN ASEAN'S INFRASTRUCTURE

This section reviews the main drivers behind ASEAN's infrastructure development, key efforts taken by ASEAN governments and Singapore's contribution in this region.

PART 2: ENVIRONMENTAL AND SOCIAL RISKS AND CHALLENGES

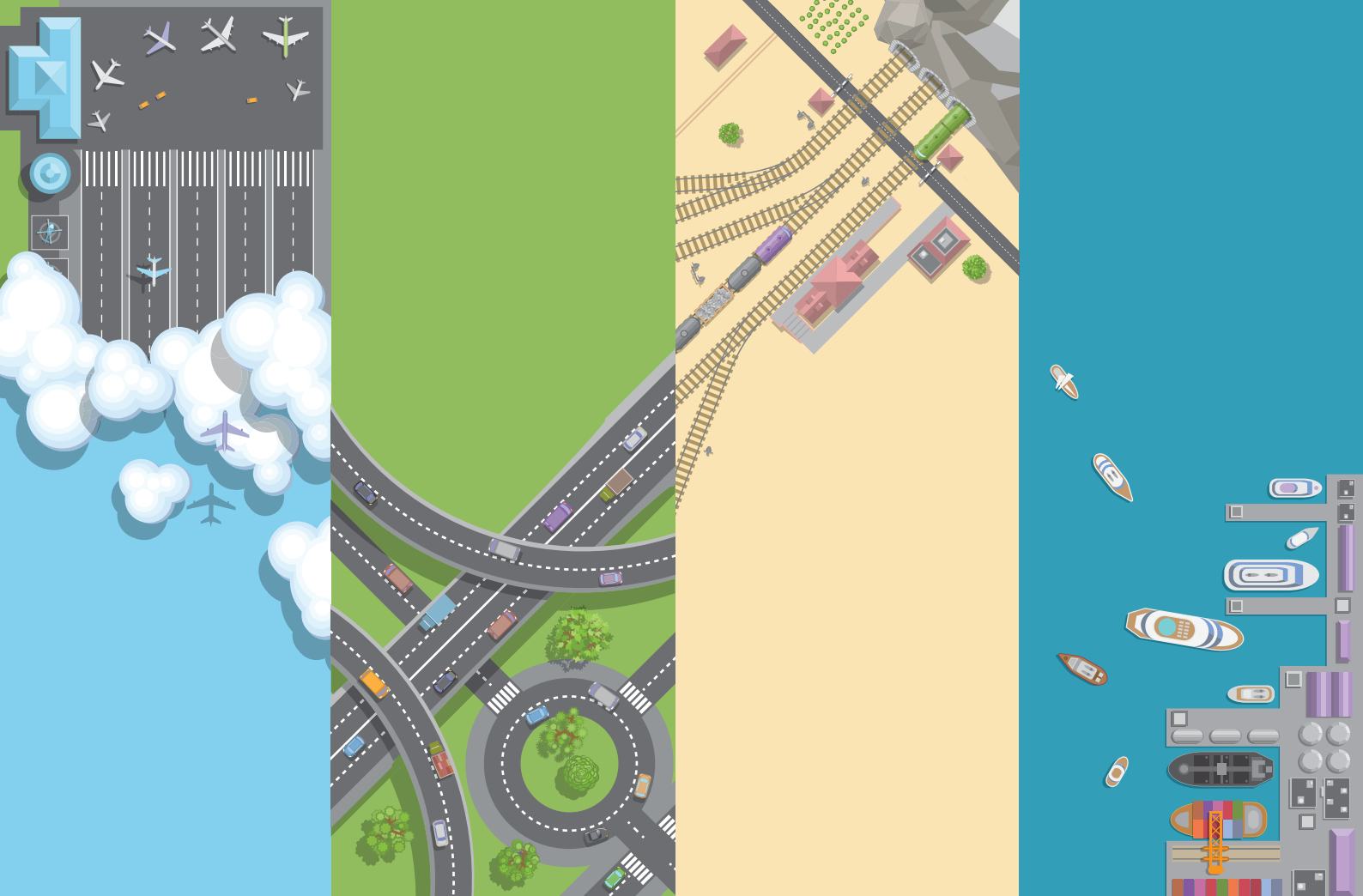
This section identifies the key challenges and E&S risks associated with financing power and transport projects. It also explains and provides examples of how they may manifest differently in ASEAN, as compared to the rest of the world.

PART 3: ENVIRONMENTAL AND SOCIAL STANDARDS, FRAMEWORKS AND PRINCIPLES

Based on the material risks discussed in the previous section, this segment identifies the relevant clauses within international, regional and domestic sustainability standards, frameworks and principles and evaluates their similarities, differences and nuances.

PART 4: RECOMMENDATIONS

Building on the previous findings, this section recommends ways to improve how different stakeholders view and address the key E&S risks in the power and transport sectors in ASEAN.



PART 1: CURRENT STATE OF PLAY IN ASEAN'S INFRASTRUCTURE

Key takeaways:

- ASEAN's massive infrastructure needs together with concerns around environmental and social threats present opportunities for green and sustainable financing. However, this is currently lacking in the region's infrastructure sector.
- In order to move the needle significantly, ASEAN governments need to signal, at the regional level, a stronger commitment to channel more green and sustainable financing to meet the massive infrastructure gaps. ASEAN governments can also do more to emphasise sustainability in how infrastructure projects are conceptualised and developed.
- Singapore has a unique role to play and can offer the region both green and sustainable financing as well as expertise in sustainable infrastructure.
- In the long run, Singapore and its ASEAN neighbours face limited state budgets to meet the massive infrastructure needs in the region. One way to unlock more private capital for infrastructure is to develop a common language around what sustainable infrastructure looks like.

1.1 Drivers behind ASEAN's infrastructure development

Infrastructure development in ASEAN is being driven domestically and intra-regionally.

On the domestic front, some countries, such as Thailand, have undergone structural changes in their economies. Initially dominated by agriculture, Thailand's economy later saw a booming of industrial and manufacturing activities. However, in the past decade Thailand has seen a drastic decline in foreign investment and the construction of new factories, in part attributed to the lack of ongoing investment in infrastructure.¹²

At the same time, as ASEAN's economies expand, consumers both within and outside ASEAN will demand more goods, necessitating the development of regional supply chains.¹³ Infrastructure is crucial to trade development strategies – without ports, roads, and rails, goods will not move as efficiently through supply chains, and trade policies might not deliver expected results.¹⁴

In order to drum up investment and trade, the ASEAN Secretariat launched the Master Plan on ASEAN Connectivity 2025 (MPAC 2025) in 2016, building on an earlier version of the Master Plan adopted in 2010. One of the plan's five strategic areas is sustainable infrastructure, for which it aims to “coordinate existing resources to deliver support across the full life cycle of infrastructure projects in ASEAN”.¹⁵ The roadmap is still in its early stages – ASEAN leaders have so far established three priorities for the plan, including a rolling priority pipeline list of potential ASEAN infrastructure projects and funding sources, as well as the development of a sustainable urbanisation strategy for ASEAN.¹⁶

In practice, the way ASEAN develops its infrastructure may also be influenced by the major regional powers, especially China and Japan.

China's Belt and Road Initiative (BRI) has unleashed many opportunities not only in terms of infrastructure construction but also infrastructure financing. Since its launch in 2013, China's BRI investments have grown at a faster rate than its total outward investments.¹⁷ Yet, it is noteworthy that the degree of receptiveness towards Chinese money still varies across ASEAN countries. Some are concerned that the deep hunger for infrastructure deals in ASEAN has made it difficult for ASEAN governments to decline BRI investments from China, despite the fact that their accompanying sustainability standards are often perceived to be less stringent than international expectations.¹⁸

Increasingly, however, China cannot ignore the concerns of host countries because local resistance is growing very strong in ASEAN communities.¹⁹ In addition, Japan, which has been a steadfast investor and partner in infrastructure development for the last few decades, is still regarded as a more trusted brand in the eyes of many ASEAN countries. Japan's G20 Presidency saw the endorsement of the G20 Principles for Quality Infrastructure Investment.²⁰ Some industry experts consider these principles to reflect many of the key ESG risks and to potentially be very influential when adopted widely.

The World Bank Group and the Government of Japan also formed the Quality Infrastructure Investment (QII) Partnership which aimed to raise awareness of and increase attention to the quality aspects of infrastructure in developing countries. These include economic efficiency, safety, environmental and social sustainability, local economic and social contribution, as well as resilience against natural disasters. The QII Partnership provides both knowledge transfer as well as financial support for project preparation and execution.²¹ At present, ASEAN countries such as Vietnam, the Philippines and Cambodia have benefited from this initiative.²²

1.2 Financing sustainable infrastructure

It is increasingly clear that ASEAN economies cannot continue on their current growth trajectory without taking into consideration climate change and sustainable development. According to the Global Climate Risk Index 2019, Myanmar, the Philippines and Vietnam were among the ten most affected countries between 1998 and 2017, with Myanmar among the top three countries most affected by extreme weather events.²³

The ADB estimates that the impacts of climate change – across agriculture, tourism, energy demand, labour productivity, catastrophic risks, health, and ecosystems – could reduce Southeast Asia's gross domestic product (GDP) by 11 percent in 2100 in the event of a business-as-usual emissions scenario.²⁴

Green and sustainable financing can help address both economic and sustainability challenges. It promotes the efficient flow of capital towards activities and projects that are more sustainable and responsive to climate concerns. In fact, the infrastructure sector holds one of the largest green finance opportunities in the region, an estimated US\$1.8 trillion from 2016 to 2030, according to the DBS-UNEP Inquiry report "Green Finance Opportunities in ASEAN".²⁵

However, green and sustainable financing is currently lacking in ASEAN's infrastructure sector. Governments fund the majority of infrastructure projects in Asia and some governments' efforts to adopt green financing are in the early stages. A notable example was in 2018 when Indonesia launched a dual tranche green *sukuk*, representing the first international green *sukuk* offering by a government in Asia. The proceeds of this and future offerings will be allocated to projects identified as having climate change benefits.²⁶

However, to move the needle significantly, ASEAN governments need to signal, at the regional level, a stronger commitment to channel more green and sustainable financing to meet the massive infrastructure gaps. This must be matched by more clarity regarding how ASEAN governments define sustainable infrastructure to better identify relevant and eligible projects. Currently, the MPAC 2025 mentions sustainable infrastructure and alludes to increasing public and private infrastructure investment in each ASEAN member state. Yet, it is neither clear whether these investments should be green and sustainable financing, nor what the criteria defining sustainable infrastructure are.²⁷

At the national level, ASEAN governments also differ on the infrastructure projects they promote and finance.

One contentious area is in managing the energy mix. Coal has been singled out for its significant contribution to greenhouse gas emissions worldwide, while natural gas and renewables are expected to expand their share of the energy mix as part of the transition to a low-carbon economy. ASEAN's energy demand is expected to rise by 50 percent, and the region aims to source 23 percent of its primary energy from renewables by 2025.²⁸ Yet, the reliance on coal in many ASEAN countries will continue to be a sticking point – its share in ASEAN's power generation mix stands at approximately 33.3 percent, and countries such as Indonesia and Vietnam are rich in coal reserves.²⁹

At the 37th ASEAN Ministers on Energy Meeting in September 2019, the Energy Ministry of Thailand – then the ASEAN Chair – was keen to advance five plans to promote the energy sector in ASEAN.

Besides putting in place an increasing target for renewable energy in Southeast Asia, Thailand's plans sought to "enhance the image of coal through promotion of clean coal technologies".³⁰ Clean coal represents part of the spectrum of views towards how coal fired-power plants should be managed.

While gas is considered to be cleaner than coal, some observers note that gas-fired power plants could lead to high levels of carbon emissions in some cases. Compared to renewable energy projects, the deal gestation for a gas-fired project may take longer due to the need to secure gas supply and the relevant infrastructure. Other interviewees pointed out that gas requires a lot of infrastructure and entails high costs. As renewables enter the mainstream, they believe that financing gas may also become unacceptable in the future.

ASEAN governments must also recognise that building physical infrastructure for transport comes with its share of E&S risks which need to be managed. Traffic congestion persists in many ASEAN cities due to the lack of efficient public transport systems and the low cost of private vehicles, although Singapore is an exception. The construction of roads and highways can mitigate the traffic congestion and help facilitate equity across the different socio-economic classes. Major ASEAN countries – such as Indonesia and the Philippines – consist of several islands and it is common to transport goods by ship along coasts or using large rivers, even between countries which are connected by land. Water transport could have greater significance as the region's economy grows,³¹ thereby generating higher demand for seaports in future.

Despite the benefits offered by better transport networks, there are concerns that the construction activities involved are labour-intensive, exposing the projects to higher labour and social risks such as workers' health and safety. In addition, existing literature related to sustainable port development largely centred on ecological concerns and tracking environmental impacts.³²

To better address these E&S risks, ASEAN governments can do more to emphasise sustainability in how infrastructure projects are conceptualised and developed. At present, one interviewee pointed out that in practice, some governments tend to do technical and economic feasibility studies but leave the E&S assessments to the private sector. This explains why multilateral development banks like the World Bank would walk away from projects that do not meet their E&S criteria.

Even in cases where the government actively helps to address sustainability concerns such as supporting the resettlement and compensation of displaced communities, these practices may not meet international standards. This presents another challenge for the private sector operating in these countries, as they would find difficulty in demonstrating that their efforts align with international expectations while adhering to national laws and regulations.

At the same time, the political risks and uncertainty that stem from frequent changes to political leadership in many ASEAN countries may hinder the delivery and completion of infrastructure projects. Therefore, multilateral institutions play a critical role in providing more stability through various avenues such as co-lending, working with host governments to build capacity, as well as raising the E&S bar in the region through their international sustainability standards, among others.

The case studies in the following section examine how the governments of selected ASEAN countries have tried to promote the financing and development of sustainable infrastructure.

1.3 Case studies of how selected ASEAN governments promote the financing and development of sustainable infrastructure

1.3.1 Indonesia

As one of the world's largest economies, with a population of 260 million, Indonesia is also the fourth-largest greenhouse gas emitter in the world. Recognising the urgency of better managing its natural resources and multiple environmental challenges, the Indonesian government published a report titled "Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia" (LCDI Report) in early 2019 to show how the country could reap tremendous economic benefits by transitioning to a low-carbon economy.³³

Requiring Indonesia to move away from coal and increase the share of renewable energy in the power sector to at least 30 percent by 2045, the LCDI Report's strategy aims to cut the country's greenhouse gas emissions by nearly 43 percent by 2030.³⁴

The LCDI will be complemented by other government initiatives such as a new carbon tax, a moratorium on forest clearing, and increased interest in renewable energy. Moreover, there is greater interest within the banking industry to promote green finance, which is partly driven by stricter regulatory requirements on E&S issues. Banks are now required to submit "RBP" (business plan for regulators), and it must include a sustainability plan.³⁵ Some banks are also required to train their borrowers as part of overall efforts to raise awareness on E&S issues.

The Jokowi administration has issued regulations to promote more waste-to-energy projects, including at the regional and provincial levels. Under these regulations, the PLN is mandated to buy electricity from renewable developers, while guarantees are issued to developers that there will be buyers for their electricity. Calls have been made for a stronger regulatory framework for renewables, with the government providing better incentives in the form of higher tariffs and greater support for land acquisition.³⁶ The idea of creating a Viability Gap Fund (VGF) was also suggested. Through the VGF, the government would partially contribute towards construction costs in cash to PPP projects that are economically feasible, but not yet financially feasible.

With the appropriate incentives and partners, the opportunities for green finance projects are aplenty. For example, PT Sarana Multi Infrastruktur (SMI)³⁷ financed Indonesia's first waste-to-energy project alongside partners such as the Japan International Cooperation Agency (JICA). In this case, the developers were incentivised because the tipping fee (i.e. the cost of disposing waste at a landfill) serves as their revenue, as opposed to having to pay for cost of fuel to produce electricity at a coal/natural gas plant.

Another example is the partnership between the ADB, through the Climate Investment Funds (CIF), and its private sector partners in supporting three landmark geothermal power projects in North, South and West Sumatra. These energy projects demonstrate how private sector investment can drive geothermal energy development. Indonesia's location above several converging tectonic plates has enabled the country to become the region's top user of geothermal energy.³⁸

1.3.2 Thailand

As of April 2018, renewable energy supplied about 15 percent of total power consumption in Thailand. Although the country's renewable energy transition is just getting off the ground, it is heading in the right direction to become a low carbon society.³⁹

Compared to its outdated Power Development Plan (PDP) (2015–2036), which emphasised the need for coal in future power capacity including planning to develop controversial coal-fired plants in southern Thailand, the new PDP (2018–2037) indicates that the percentage of total power capacity from coal-fired power plants will be reduced to 12 percent.⁴⁰ It also highlights how local authorities are aiming to raise the share of renewable energy from 10 percent to 30 percent in the domestic power mix by 2037. The main renewable activities and projects include off-grid micro-hydropower, on-grid solar farm, solar home systems rehabilitation and solar lanterns adoption, as well as solar rooftop and energy efficiency measures in buildings.⁴¹

In practice, the government is trying to integrate provincial-level renewable energy planning into the national level, with a view to enhance the capabilities of the provincial government agencies.

Notably, the new PDP also reaffirms that feed-in-tariffs (FiT)⁴² will be available to new renewable power projects to support growth.⁴³ In addition, the government has shown its willingness to adopt innovative technology and allow more private participation in the energy trading sector through peer-to-peer private electricity trading, particularly for solar power distribution.⁴⁴ Adopting the block chain-enabled trading system in Bangkok can be regarded as a positive signal from the Thai government to transform traditional power distribution from large power plants into a block chain system, and decentralise the overall management of state utilities to a prosumer system.⁴⁵

Thailand has been incentivising investment in solar projects for more than a decade and now reaps the benefits of this consistent support, being ASEAN's front-runner in installed solar, wind and biomass capacity.⁴⁶ Thailand's solar energy accounts for about 3,300 MW, which has more than doubled since 2014 and is halfway toward its 2036 solar target of 6,000 MW. Notably, Thailand's solar capacity accounts for more than 60 percent of the total installed capacity in ASEAN.⁴⁷

The Thai government has also been in partnerships with the ADB on several renewable energy projects, including the country's first solar and wind generation plants. With support from the ADB to facilitate the financing of sustainable infrastructure through innovative financial instruments, the country has issued its first green bond.⁴⁸ In addition, there are a few funds focusing on infrastructure projects, such as the BTS Rail Mass Transit Growth Infrastructure Fund and the Thailand Future Fund.

One key initiative is the Eastern Economic Corridor (EEC), a pilot project for the economic development of Thailand's Eastern Seaboard. The Thai government has introduced measures to support and accelerate the economic progress in the EEC, including developing public utilities, transportation systems, logistics, and human resources.⁴⁹ This initiative is due to be completed by 2021 and is expected to position Thailand as a technological, manufacturing and service hub connected to its ASEAN neighbours by land, sea and air.⁵⁰ In a bid to attract foreign investors, the government has stepped up to improve regulations to increase transparency and enhance the international trade and investment environment.⁵¹ While there are dialogues covering topics such as circular economy and waste management in the EEC,⁵² some observers believe that the Thai government can still do more to place sustainability at the forefront of how infrastructure projects are designed and implemented.

1.3.3 Vietnam

With Vietnam's coal reserves depleting, the government is looking to shift the energy mix away from fossil fuels. In particular, renewable sources such as wind and solar are mostly untapped and their expansion potentials are high. In recognition of this, the Vietnam government has revised its power development plan and set priorities for developing renewables such as wind, solar, and biomass. The percentage of renewable energy power is expected to increase to seven percent by 2020 and to 10 percent by 2030. Currently, hydropower dominates the Vietnam power mix, with a share of about 40 percent of the total installed capacity, followed by coal and gas at 39 and 16 percent respectively. Non-hydro renewables account for just two percent.⁵³

In 2017, the introduction of the feed-in-tariff regulation by the Vietnamese Ministry of Industry and Trade created a wave of investment in solar power development, especially in the southern regions of Vietnam. In addition, Vietnam Electricity (EVN), a state-owned enterprise, is investing in a number of solar power projects with a total installed capacity of 2,000 MW in the provinces of Khanh Hoa, Kon Tum, Ninh Thuan, Binh Thuan and Dong Nai.⁵⁴ In Ninh Thuan in particular, Sunseap International, the international arm of Singapore's leading clean energy provider Sunseap Group, has signed an agreement with Infracore Asia Development to jointly develop the 168 megawatt-peak (MWp) utility-scale solar power project. This is Vietnam's first large-scale solar project and the electricity generated by this plant is expected to power up to 200,000 households in Vietnam.⁵⁵

Under Vietnam's new Master Plan on Power Development, subsidies for fossil fuels are being removed. Additionally, the Government offers tax incentives for renewable energy development such as exemptions or reductions in import tax and corporate income tax on wind power and biomass power projects.⁵⁶ These measures could be expanded to include solar projects. The Ministry of Industry and Trade (MOIT) is drafting a Decision of the Prime Minister that allows solar power projects to be supported by investment capital, tax and land rent concessions.⁵⁷ 100 percent foreign ownership is allowed in energy production, which further contributes to the booming renewable energy sector. Broadly, the Vietnam Green Growth Strategy (VGGS) issued in 2012 and the country's 2015 Nationally Determined Contribution (NDC) to the Paris Agreement also reflect important commitments to emissions reduction.

Vietnam's power system will require about US\$10 billion in investment each year until 2030 to fulfil the country's targets. While the government has established and funds the Sustainable Energy Promotion Fund, there is an urgent need to mobilise external capital to finance future supply. Investors such as Sunseap International and Infracore Asia Development, along with others, provide critical funding and expertise.⁵⁸ For example, Vietnam-Oman Investment is financing the US\$48 million BCG-CME Long An 1 solar energy plant, while the IFC is investing in Vietnam's first private grid-connected solar farm in Phong Dien.⁵⁹

1.3.4 Singapore

Singapore has long been the infrastructure finance hub of Southeast Asia. The country is involved in third country infrastructure development, and has built a brand value of trust, bankability and sustainability. About 60 percent of ASEAN project finance transactions are arranged by Singapore-based banks.⁶⁰ The establishment of the new Infrastructure Asia Office in 2018 will further position Singapore as the region's infrastructure knowledge hub and allow the city-state to play a key role in Asia's infrastructure development. At the 2019 inaugural Asia Infrastructure Forum in Singapore, the Infrastructure Asia Office and the ADB jointly committed to helping governments in Southeast Asia adopt innovative and green finance approaches to develop bankable and sustainable infrastructure projects in the region. An Innovative Finance Lab for Sustainable Infrastructure will be developed to exchange knowledge, and improve institutional, financial, and governance capacities within the region. There is recognition that the rising costs of climate change mitigation and adaptation is pushing ASEAN governments to catalyse funds from private and institutional sources to support greener, cleaner and timely infrastructure development.⁶¹

At the Asia Infrastructure Forum, Singapore also announced its aim to standardise 50 percent of the terms in project finance documents in the coming year as part of ongoing efforts to make infrastructure projects more bankable and investible. To this end, the Infrastructure Asia Office will work with legal providers on standardised clauses in project finance loans, to reduce time and cost and make processes more transparent.⁶² This is the first such initiative by an ASEAN government and will address a major challenge in the infrastructure finance process.

Singapore's development as a green finance hub for the region will no doubt promote the financing of sustainable infrastructure. One of the major initiatives by the government was the launch of the Green Bond Grant Scheme in 2017 by the Monetary Authority of Singapore to support the issuance of green bonds. It was renamed the Sustainable Bond Grant scheme after it expanded to include social and sustainability bonds. The scheme aims to offset the additional costs of issuing green, social and sustainability bonds as compared to conventional bonds issuance, and to promote the adoption of internationally accepted standards on sustainability. To date, some S\$6 billion worth of green bonds have been issued in Singapore, by both local and foreign players.⁶³

Singapore has also made a considerable push into helping to mobilise institutional capital into infrastructure financing. The MAS worked together with Clifford Capital to design and structure an Infrastructure Take-Out Facility, which is aimed at transforming infrastructure loan exposures from banks into rated note securities that can be easily accessible by institutional investors. Clifford Capital successfully executed an inaugural issuance through Bayfront Infrastructure Capital in 2018, which demonstrated that there is strong demand from institutional investors if there is a suitable investment format.⁶⁴

The country is also involved in building infrastructure domestically and in the region. While political risks and other factors influence the bankability of projects, Singapore's Tuas Mega Port as well as Sembcorp Industries' Myingyan power plant in Myanmar can serve as promising examples to the region in terms of how sustainable infrastructure could look like in the future.

The new Tuas Port is set to be the world's largest fully automated terminal when completed in 2040. Beyond a larger terminal, Prime Minister Lee Hsien Loong sees the Port as an opportunity "to peer

over the horizon and rethink the future of shipping”.⁶⁵ The Tuas Port will be operated by intelligent data-driven operations management systems and smart engineering and power management platforms which will contribute towards higher efficiency, productivity and environmental sustainability.⁶⁶

In addition, Singapore can offer its expertise in sustainable infrastructure to the region, as reflected in the Sembcorp Myingyan Independent Power Plant (IPP) which was officially opened in March 2019 in Mandalay, Myanmar. Funded by multilateral institutions such as the ADB, the Asian Infrastructure Investment Bank (AIIB) and the IFC, alongside international commercial lenders like Clifford Capital, DBS Bank, DZ Bank and OCBC, Sembcorp Myingyan is the first competitively-tendered IPP in Myanmar and the country’s first power plant to integrate both gas-fired and solar power generation.⁶⁷ From an environmental perspective, the use of solar panels to generate renewable electricity for onsite use means that the plant can reduce its reliance on gas turbines for its operations, and minimise its greenhouse gas emissions. Moreover, the Sembcorp Myingyan plant has created jobs for locals, with Myanmar nationals comprising 95 percent of the staff.⁶⁸ This further demonstrates the value infrastructure projects bring to the local community when there is knowledge transfer and income generation.

These examples could serve as positive reference projects which are broadly aligned to environmental protection, social advancement and bankability considerations. Singapore’s expertise in large-scale infrastructure projects as well as the availability of more green and sustainable finance will help to develop green markets and enhance its reputation, trust and expertise in the region.

In the long run, Singapore and its ASEAN neighbours face limited state budgets to meet the massive infrastructure needs in the region. This raises an urgent need for the Singapore government and its counterparts in ASEAN to do more to attract green and sustainable financing from private sources.

One way to unlock more private capital for infrastructure is to develop a common language around what sustainable infrastructure looks like. This first involves having the same understanding of the E&S risks which are material to the power and transport sectors.



PART 2: ENVIRONMENTAL AND SOCIAL RISKS AND CHALLENGES

Key takeaways:

- Financiers today place increasing emphasis on E&S issues alongside economic viability considerations due to the recognition that E&S risks can undermine the bankability of projects. Greater scrutiny from various stakeholders also translates into expectations for financial institutions to disclose the projects financed and their E&S sector policies.
- There are eight key ESG factors that financial institutions consider when making decisions about infrastructure financing in Southeast Asia. Five of these eight ESG factors belong to the environmental and social categories. The environmental factors often considered are (1) loss of biodiversity and (2) greenhouse gas emissions; the social factors commonly cited are (1) resettlement and compensation, (2) workers' health and safety and working conditions, as well as (3) inclusion of marginalised groups.
- Within the power and transport sectors, interviewees suggested six areas of interest, namely, solar projects, wind projects, geothermal projects, roads, rails, and seaports. However, when these projects are mapped against the E&S risks identified, their exposure and degree of severity of risks varies. This report estimates the degree of severity of risks and indicates them as Green (Low Risk), Amber (Mid Risk) or Red (High Risk).

Historically, E&S factors generally took on a low priority when financiers assessed infrastructure projects. In particular, the assessment criteria tended to prioritise considerations around technical feasibility – for instance, whether the project can be procured – as well as the market demand for the project. Financiers would then evaluate E&S factors after the economic viability has been established.

This has changed today where E&S issues are given a higher, or even equivalent priority as economic feasibility. This is because an increasing number of financial institutions are recognising that E&S challenges can pose risks and undermine the bankability of projects, even when they do not surface at the beginning. In addition, there is greater scrutiny from the media and investors of such financial institutions, particularly those who have signed up to a particular standard such as the Equator Principles. Increasing levels of disclosure are also expected from these financial institutions in terms of the projects they finance and their E&S sector policies.

An apt example is the US\$3.6 billion Myitsone hydropower project which Myanmar's quasi-civilian government had suspended in 2011 amid environmental concerns, straining their ties with China, their largest trading partner.⁶⁹ The Chairman of Myanmar's investment commission, U Thaung Tun, noted that the original plans for the dam were not "thought out" and lacked consideration regarding its impact on the community and the environment.⁷⁰

These E&S controversies are among the many sustainability challenges identified by interviewees with a presence in Myanmar and other parts of ASEAN. The extent of E&S risks identified in a project depends on the degree of attention given by different people, which is in turn influenced by their appetite and capacity.

This is where European banks, pension funds, and multilateral development banks (MDBs) which tend to have more stringent E&S standards could make a difference. Apart from extending loans, MDBs also assist with capacity building, and provide guarantees among others. These help to enlarge the pool of available capital while possibly crowding in private sector investment. The MDBs also provide a framework for sustainable practices by ensuring that any projects they finance adheres to their relevant standards.

Questions also arise about the extent of oversight and responsibility financial institutions should exercise across the complex supply chain. While agreements may be signed between the financial institution and the project developer as the client, the construction phase of the infrastructure project tends to involve contractors and sub-contractors, who are often decided after the agreement is signed.

At the same time, complying with more rigorous E&S standards – which are not mandated by national laws and regulations – continues to be perceived as increasing operational costs. This view is more prevalent among local sub-contractors who are less visible to the financiers, face greater financial constraints, and have an incentive to save costs by compromising on their sustainability practices. To this end, they may turn to local financial institutions with less stringent sustainability standards and who exert less pressure on their clients to improve on their E&S practices. The implication could be that those working for sub-contractors are less likely to receive adequate labour protection in terms of their health and safety, for instance.

2.1 ESG-related risks of infrastructure financing

Based on our interviews, the SIIA identified eight key ESG factors that financial institutions consider when making decisions about infrastructure financing in Southeast Asia. Poor management of ESG risks has severe repercussions for the project developers as well as the financiers who back them. These could vary from reputational to legal and operational costs.⁷¹ The key factors are listed in the table below, and will be explored in depth in the following sections.

ENVIRONMENTAL	SOCIAL	GOVERNANCE
Loss of biodiversity	Resettlement and compensation	Lacking capacity
Greenhouse gas emissions	Labour – health and safety; working conditions	Complex and opaque regulation
	Inclusion of marginalised groups	Bribery and corruption

2.1.1 Environmental risks

2.1.1.1. Loss of biodiversity

	POWER SECTOR PROJECTS			TRANSPORT SECTOR PROJECTS		
	SOLAR	WIND	GEOTHERMAL	ROADS	RAILS	SEAPORTS
DEGREE OF SEVERITY	Green	Green	Amber	Red	Amber	Amber

Southeast Asia occupies only three percent of the world's total land area, yet is inhabited by almost 20 percent of the world's known plant and animal species.⁷² As infrastructure needs for power and transport in ASEAN are greatest in rural areas, some of which are proximate to pristine forests or large water bodies, their impact on biodiversity, particularly vulnerable national species, is significant.

Renewable energy projects tend to take a large toll on biodiversity although their manifestations could vary depending on the scale and type of project. For instance, solar farms run the risk of incinerating birds passing through, and wind turbines also pose collision risks to birds and bats.

Constructing roads that cut through forests also threatens flora and fauna. Roads open up forests and wildlife to loggers and poachers, and increase the likelihood of roadkill. Furthermore, when roads penetrate pristine areas, they foster human settlement, hunting and forest clearance for agriculture – effects that ripple outward from a single through road.⁷³ Eco-bridges, often built to improve the “green-ness” of roads, do not adequately serve wildlife that lose their habitats. A study showed that 20 viaducts across Peninsular Malaysia were only effective crossing structures for two out of six target mammal species, and that viaducts were poorly used by carnivores such as tigers.⁷⁴

2.1.1.2. Greenhouse gas emissions

	POWER SECTOR PROJECTS			TRANSPORT SECTOR PROJECTS		
	SOLAR	WIND	GEOTHER-MAL	ROADS	RAILS	SEAPORTS
DEGREE OF SEVERITY	Green NB: Fossil fuels would be red	Green	Green	Green	Green	Green

The effects of climate change may be debilitating for the global economy – experts estimate that climate change could cost one to two percent of global GDP by 2050.⁷⁵ For Southeast Asia, the projected impact totals three percent of regional GDP.⁷⁶ Of the global greenhouse gas emissions that drive climate change, an estimated 70 percent is attributed to infrastructure construction and operations including power plants, buildings and transport.⁷⁷

Our interviewees cited carbon intensity as a top environmental consideration for power projects, more so than for transportation projects such as roads, rails and ports, since vehicles are the main culprit for emissions in the transportation sector. Globally, vehicles are responsible for 24 percent of emissions from the use of fossil fuels for energy, and 15.7 percent of the overall total from human activities.⁷⁸ Cars contribute slightly more than two thirds of emissions produced by all vehicles.⁷⁹ While electric vehicles were brought up by interviewees as an area to look into in the field of green transport, it is outside the scope of this report, which focuses on physical infrastructure such as roads, rails, and ports.

Although Singaporean financial institutions have been moving away from coal, coal-fired power still forms a large part of ASEAN's energy mix. 91 percent of ASEAN banks still finance new coal-fired power plants.⁸⁰ Indonesia is on track for the third-largest coal-fired power capacity of new plants under development, behind China and India. Vietnam follows in fourth place, while the Philippines and Thailand will be home to multiple new coal power stations.⁸¹

As investors from Europe and the US adopt more rigorous ESG criteria, it will leave a vacuum of financing for ASEAN's coal plants, which other international financiers may fill instead. According to the Institute for Energy Economics and Financial Analysis, Chinese banks and companies are funding over one quarter of coal plants under development outside the country.⁸²

ASEAN has set an aspirational target to increase its renewable energy component to 23 percent by 2025 in the ASEAN energy mix, up from about nine percent in 2014.⁸³ Our interviewees pointed out that a transition towards renewables cannot be made overnight – power grids need to be modernised to accommodate renewable energy sources, and the livelihoods of people working in fossil-fuel reliant industries need to be considered. Despite the fact that the cost of producing solar energy is falling globally, the lack of economies of scale, coupled with poorly designed power purchase agreements, makes the transition to solar energy difficult in ASEAN.

In light of these realities, some of our interviewees suggested that new technologies, such as ultra-supercritical technology, can make coal-fired plants more efficient. Some of our interviewees also suggested natural gas as an alternative to coal, being that it is less polluting as a traditional energy source. Investing in gas-fired power plants also involves a variety of considerations including efficiency, grid structure and the energy needs in the country.

2.1.2 Social risks

2.1.2.1 Resettlement and compensation

	POWER SECTOR PROJECTS			TRANSPORT SECTOR PROJECTS		
	SOLAR	WIND	GEOTHER-MAL	ROADS	RAILS	SEAPORTS
DEGREE OF SEVERITY	Amber	Amber	Amber	Red	Red	Red

Among the social considerations of infrastructure development, those around land acquisition are particularly intractable. Land rights and regulatory approvals are complex, and in developing ASEAN countries, land ownership is not well-documented. Developing countries also struggle with the dichotomy of acquiring land for infrastructure development and balancing landholder interests. Transportation projects, namely roads and railways, tend to incur risks associated with land acquisition more so than power projects, because they may potentially cut through many established communities that need to be resettled should the project go through.

Projects that necessitate land acquisition are risky because they bring about myriad challenges, both regulatory and social. In the absence of laws that make land concession mandatory, households may be reluctant to sell inherited land to government, since compensation does not guarantee a windfall in the long term.⁸⁴

On the other hand, the government's mishandling of land acquisition processes has resulted in political tensions in ASEAN countries, which creates risks for investors. For instance, Burmese communities have called for the suspension of Myanmar's Kyaukpyu Special Economic Zone project, due to disputes over compensation and resettlement, as well as resentment over Myanmar and Chinese authorities ignoring due diligence in order to expedite the project.⁸⁵ Reuters reported that Myanmar authorities began working on land acquisition contracts before the completion of appropriate environmental and social impact assessments (ESIA), breaching development laws.⁸⁶

Even in countries like Indonesia where laws are in place, details around resettlement and compensation still need to be hammered out. Should the landowner not agree with the government's terms and conditions of the land concession, they would have to contest the contract in state court. Land acquisition can thus be a lengthy process, which is why some developers hope to avoid the issue altogether, sometimes by building around whole communities, which may result in less efficient transport networks.

2.1.2.2 Labour – health and safety; working conditions

	POWER SECTOR PROJECTS			TRANSPORT SECTOR PROJECTS		
	SOLAR	WIND	GEOTHER-MAL	ROADS	RAILS	SEAPORTS
DEGREE OF SEVERITY	Green	Green	Amber	Red	Red	Red

Labour-related issues are not immediately visible to financial institutions, as they crop up during project construction. Yet issues such as labour exploitation pose reputational risks to financial institutions when they are detected and reported by the mass media. Moreover, workers that sustain fatal injuries, protest or strike cause delays to infrastructure projects, which add to operational costs that lending financial institutions need to bear.

Many of our interviewees pointed out that there are gaps between compliance to labour standards on paper, and the actual implementation of those standards. Requirements for adequate accommodation, medical compensation, and so on may not actually be met on the ground, and workers may have limited access to grievance mechanisms, or a lack of awareness about such channels, to resolve these issues.

Furthermore, the safety of workers is a large concern in developing ASEAN countries. Our interviewees provided anecdotes of workers showing up at project sites without any shoes or helmets, having not been briefed on minimum safety precautions. Cambodia, notorious for its lax safety laws and labour protections, has a record of accidents at construction sites. Building owners often flout safety measures and cut corners, which lead to accidents. In July 2019, 28 workers died in Sihanoukville, when a Chinese-owned building under construction collapsed on them.⁸⁷ The negligence of labour rights can be observed across the value chain in infrastructure development, right down to the production of building materials. In Cambodia, debt-bonded labourers extract, mould, and fire clay in hazardous conditions to meet Phnom Penh’s growing demand for bricks – bricks that have since been termed “blood bricks”.⁸⁸

2.1.2.3 Inclusion of marginalised groups

	POWER SECTOR PROJECTS			TRANSPORT SECTOR PROJECTS		
	SOLAR	WIND	GEOTHERMAL	ROADS	RAILS	SEAPORTS
DEGREE OF SEVERITY	Green	Green	Amber	Amber	Amber	Amber

Within ASEAN, Indonesia and the Philippines have significant populations of indigenous people. Such communities may consider certain areas or landmarks culturally or religiously significant, making it difficult for developers and regulators to negotiate land concessions. While many international standards mandate Free, Prior and Informed Consent (FPIC) as a prerequisite for infrastructure projects, achieving it fully is difficult in practice. Some developers have even fabricated the obtaining of FPIC – for example, a few indigenous communities in Quezon, Philippines, were reportedly duped into signing an FPIC for the controversial Kaliwa dam, having been told that they were registering for a food distribution programme.⁸⁹

Women are disproportionately affected by mandatory resettlements and the accompanying loss of livelihood. As heads of the household, men tend to be allocated land and compensation after land acquisitions, leaving women vulnerable as they need to depend on male relatives for access to land for farming after relocation.⁹⁰ These effects extend to a woman's dependents. The needs of women, children and the elderly may not be represented adequately during outreach and engagement activities carried out by developers, compounding the marginalisation of these vulnerable groups in infrastructure development.

2.1.3 Governance risks

2.1.3.1 *Lacking expertise*

A comment frequently made by our interviewees is that developing countries in ASEAN do not have enough government officials with the necessary expertise to oversee the conceptualisation and execution of infrastructure projects. Government officials require technical, legal and financial skills, as well as robust frameworks through which decisions around infrastructure projects can be made.⁹¹

Lacking capacity around a stricter compliance with E&S standards is not only seen in the public sector, but in financial institutions as well. Being that most ASEAN banks are behind the global conversation on sustainable finance, some do not have dedicated sustainability teams that monitor the institution's portfolio. Further, project developers' lack of understanding of the importance of E&S issues leads to gaps in compliance, particularly in social standards.

2.1.3.2 *Complex and opaque regulation*

In countries such as Indonesia and Vietnam, developers defer to municipal, rather than national laws when it comes to E&S compliance. Patchwork jurisdictional laws on managing E&S aspects of infrastructure projects may deter investors, particularly if local laws are not clearly spelled out and are variable. Such legal uncertainty is in itself a risk to infrastructure financiers.

On the other hand, too much state intervention in the direction of power and transport projects also crowds out private financiers, and makes the few existing project opportunities unappealing to them. The dominance of state-owned companies in the power generation sector also makes the transition to renewables more difficult for countries.

For example, Indonesia's electricity market is dominated by Perusahaan Listrik Negara (PLN), a state owned utilities company. While Indonesia has high potential for solar, independent power producers (IPPs) are obligated to use more expensive local panels because of Indonesia's local content requirements. At the same time, staying competitive requires them to match the cost profile of baseload coal power units, which are heavily subsidised through PLN. As a result, local solar energy producers cannot scale up and match the competitive pricing that other countries enjoy.⁹²

2.1.3.3 *Bribery and corruption*

Alongside opaque regulations, bribery and corruption are pervasive in business dealings in ASEAN.⁹³ In the infrastructure sector, bribery and corruption may be rife among regulators, developers and auditors in complying with E&S requirements. One interviewee said that there have been cases of regulators retroactively changing E&S requirements by issuing addendum clauses, so that the finished project can meet those requirements and therefore begin operation.

In Southeast Asia, governments usually require developers to hire their own auditors to carry out the ESIA in the project development phase. However, this possibly introduces a conflict of interest, as developers would not want to work with auditors who could bring their project to a halt.⁹⁴ In Malaysia, some auditors fear that conducting stringent assessments would get them blacklisted by other developers.⁹⁵

Many of our interviewees noted that the tick-box mentality regulators, financiers and developers have towards meeting E&S requirements renders E&S compliance meaningless, and makes greenwashing a high likelihood. Moreover, the standard and frequency of ESIA as mandated by national laws may be too lax, which makes it difficult to gather data on the actual E&S impact of projects.



PART 3: ENVIRONMENTAL AND SOCIAL STANDARDS, FRAMEWORKS AND PRINCIPLES

Key takeaways:

- The IFC's Performance Standards and the ADB Safeguard Policy Statement were commonly referenced among the institutions interviewed.
- Both the IFC's Performance Standards and the ADB Safeguard Policy Statement are sufficient in their coverage of the range of E&S risks earlier identified in the power and transport sectors. However, they also have some nuances in the way certain E&S risks should be addressed. Therefore, financiers must do their part to exercise discernment and ensure that the local conditions and challenges are taken into account when applying international standards.
- At the same time, many ASEAN financial institutions have developed their own policies and criteria to provide additional assessment for projects with high ESG risks.
- Although the approaches taken fall on a spectrum, a few general observations can be made: (1) Broad goals such as the UN Sustainable Development Goals (SDGs) are prominently stated; (2) References are made to international sustainability standards, frameworks and / or principles; and (3) Steps taken to review or assess the sustainability practices of their clients are provided.
- This disparity in the understanding of sustainable infrastructure across standards, frameworks and principles reflects the need for existing financial institutions to look to multiple sources in order to develop a comprehensive assessment and management of E&S risks. Otherwise, the current portfolio of financial institutions may be exposing them to more E&S risks than anticipated.

Managing E&S risks requires financial institutions to integrate E&S considerations in the planning stage of the project as well as regularly monitor the E&S impacts associated with the project throughout its lifecycle. This is closely linked to the standards, frameworks and principles selected, through which these risks are identified and addressed.

Building on the earlier discussion of material E&S risks in the power and transport sectors, this section focuses on the relevant E&S clauses within existing sustainability standards, frameworks and principles adopted by international and ASEAN financial institutions. The analysis is done as follows:

First, this section examines the international sustainability standards, frameworks and principles commonly cited by the interviewees; this is coupled with analyses as to the degree of consistency in defining sustainable infrastructure, especially how key E&S risks should be addressed.

Second, this section focuses on the in-house standards, frameworks, principles developed by ASEAN financial institutions, with a view to trace some of the similarities in how the key E&S risks should be mitigated.

The findings in this section stem from a combination of disclosures in the public domain as well as interviews with international and ASEAN financial institutions regarding their preferred sustainability standards, frameworks and principles. This is important because the choice of standards, frameworks and principles constitutes the lens through which financial institutions – and in turn, their clients – understand and manage the key E&S risks in the power and transport sectors.

3.1 Overview of the common international sustainability standards, frameworks and principles

In general, the interviewees demonstrated awareness of at least one or more international standards, frameworks and principles used in green and/ or sustainable finance. These include the ADB's Safeguard Policy Statement, the IFC's Performance Standards on Environmental and Social Sustainability (henceforth referred to as "IFC's Performance Standards") as well as the Equator Principles. More details can be found in the Sidebar.

Sidebar: Overview of commonly referenced international standards

1) ADB's Safeguard Policy Statement — The ADB Safeguard Policy Statement aims to “promote the sustainability of project outcomes by protecting the environment and people from potential adverse impacts of projects”.⁹⁶

Rather than advising users where to invest, the ADB Safeguard Policy Statement focuses on how one should develop projects. Its specific objectives are, namely, to avoid projects' adverse impacts on the environment and affected people where possible; minimise, mitigate and / or compensate for adverse project impacts on the environment and affected people when it is not possible to avoid them; and assist borrowers / clients to improve their safeguard systems and develop the capacity to manage E&S risks.⁹⁷

2) International Finance Corporation's (IFC) Performance Standards on Environmental and Social Sustainability as well as the Equator Principles — The **Equator Principles** address a specific means of financing, namely, project finance. Based on IFC's Performance Standards, the Equator Principles (EPs) is a risk management framework to help financial institutions determine, assess and manage E&S risk in projects.⁹⁸ Its primary purpose is to offer a minimum standard for due diligence and monitoring to support responsible risk decision-making.⁹⁹

As at the time of writing, there are 101 Equator Principles Financial Institutions in 38 countries which have officially adopted the EPs; they comprise the majority of international project finance debt within developed and emerging markets.¹⁰⁰ Those which adopt the EPs tend to be international financial institutions and the Asian EPFIs are headquartered in China, India, Taiwan, Japan and Korea. None are from ASEAN.

3) Green Bond Principles — Another potential source of financing is green bonds. Green bonds' proceeds are to be exclusively used to finance or re-finance in part or in full new and/ or existing eligible green projects.

Unlike project finance, green bonds are associated with various standards, frameworks and principles, all of which make the process of issuing green bonds appear more complicated. When issuers develop their own Green Bond Framework as guidelines for their green bond issuances, the framework may reference the **Green Bond Principles (GBP)** provided by the International Capital Markets Association (ICMA). The GBP allows the issuer to define what is “green” and contributes by suggesting project categories which may be eligible.¹⁰¹ On the other hand, the Climate Bonds Initiative has green definitions, which are sector specific.¹⁰² A few interviewees saw the Climate Bonds Standard as “best practice”.

As of November 2018, over 40 percent of ASEAN green bonds' proceeds go towards low carbon buildings.¹⁰³ The second largest sector is energy, with solar and geothermal being the two most common energy types financed.¹⁰⁴

There remains various obstacles to higher green bond issuances. These include the lack of projects eligible for green bonds as well as the lack of mature issuers of green bonds in the region. This is because many issuers – whether infrastructure-related companies or banks lending to such companies – lack internal E&S capacity or expertise to develop their own green bond framework that is needed as the platform for issuance. Another challenge faced by regional treasurers is that they remain unconvinced by empirical data on the pricing benefits of green bonds. If a green bond cannot be issued at lower cost/spread than a conventional bond, it would be difficult to justify internally to senior management the costs and work involved in setting up a green bond framework, and would rather continue issuing conventional bonds.

3.2 Addressing key E&S risks through international sustainability standards, frameworks and principles

This section compares the relevant clauses pertaining to the key E&S risks within the IFC's Performance Standards and the ADB Safeguard Policy Statement, highlighting the similarities and differences in its application.

A few important observations can be made through this comparison and analysis.

First, both the IFC's Performance Standards and the ADB Safeguard Policy Statement are sufficient in their coverage of the range of E&S risks earlier identified in the power and transport sectors. Within each clause, terms used in both documents are indicated in the same colour highlights while the disparities are marked by different colours. The comparison reflects broadly similar language and in turn, consistency with regards to how E&S risks are identified and addressed, enabling both standards to be universally applied in any context. This makes international standards a good starting point for both financial institutions and project developers to start evaluating the E&S risks of power and transport projects more comprehensively.

Second, the comparison also surfaces some nuances in the way certain E&S risks should be addressed. For instance, the ADB Safeguard Policy Statement is more stringent regarding how clients approach local communities' consultation and participation, but it is lacking in criteria pertaining to grievance mechanisms for workers. This is important to note since the previous section demonstrates that the E&S risks can be diverse depending on the nature of the project within the power and transport sectors. Within the renewables space for instance, not all projects experience the same E&S risks. Moreover, the degree of severity of E&S challenges could be affected by the country where the projects are implemented. In view of possible weak E&S safeguards in the country, financiers must do their part to exercise discernment and ensure that the local conditions and challenges are taken into account when applying international standards.

A detailed comparison of the relevant clauses is provided in Annex B.

3.3 Addressing key E&S risks through ASEAN financial institutions' in-house sustainability standards, frameworks and principles

Efforts to increase accountability to various stakeholders have seen improved disclosure among ASEAN financial institutions' policies and guidelines related to sustainable financing. These disclosures recognise – and at times, make references to particular international sustainability standards, frameworks and principles.

At the same time, many of these financial institutions have developed their own policies and criteria to provide additional assessment for projects with high ESG risks.

This section examines these policies and criteria and the approaches taken fall on a spectrum. In this respect, a few general observations can be made: (1) Broad goals such as the UN Sustainable Development Goals (SDGs) are prominently stated; (2) References are made to international sustainability standards, frameworks and / or principles; and (3) Steps taken to review or assess the sustainability practices of their clients are provided. These steps take into account the degree of ESG risks involved in financing the company or activity and the relevant personnel tasked to evaluate these risks and the bankability of the projects.

The level of complexity of a financial institution's in-house ESG policies need to be balanced against the size and resources of the financial institution in (1) implementing and monitoring the ESG framework for its borrowers and (2) remaining competitive in the market. Some deem these policies and criteria as an internal and confidential assessment so the extent to which international sustainability standards, frameworks and principles are applied, is not clear. What has been often emphasised during the interviews, is that in-house policies and criteria mirror the national laws and regulations where these financial institutions operate.

Aligning in-house policies and criteria to national laws and regulations is a good start. However, this could run the risk of some ASEAN financial institutions being perceived as settling for the minimum and could foster an inertia to do more. This is a real danger because adopting sustainability practices continue to be associated with higher costs. In practice, it is also easier to require clients to comply with mandatory national laws and regulations rather than voluntary Environmental, Social and Governance criteria.

3.3.1 Industry initiatives

For a start, industry initiatives are important in helping to align the ecosystem around common interests, create a level playing field as well as advance a collective agenda. An apt example is the Association of Banks in Singapore's (ABS) Guidelines on Responsible Financing, first released in 2015 and later revised in 2018. The guidelines set forth the minimum standards on responsible financing practices to be incorporated into member banks' and financial institutions' business model.¹⁰⁵ The guidelines are explicitly referenced in some financial institutions' websites.

Since its publication, these guidelines have served to formalise sustainable lending practices among the banks and triggered the process of mainstreaming ESG considerations as part of the banks' overall business and lending practices.¹⁰⁶ Based on this document, Responsible Financing is guided by three principles, which comprise of disclosure of senior management's commitment, putting in place a governance system as well as conduct capacity building among staff.¹⁰⁷

Notably, infrastructure and energy from fossil fuels are among the industries – identified by the guidelines – to carry elevated risk and require more attention by the banks.¹⁰⁸ The scope of responsible financing spans ESG criteria:

Environmental: Greenhouse gas (GHG) emissions, deforestation and forest degradation, loss of biodiversity and critical ecosystem services, water, air and soil pollution and contamination, resource efficiency;

Social: Labour standards, community relations and stakeholder engagement, human rights, health and safety, food security, other necessities of local communities and indigenous people;

Governance: Corporate ethics and integrity, reputation, management effectiveness, risk management, reporting

Source: ABS Responsible Financing Guidelines

Some of the key E&S risks in the power and transport sectors are also reflected in the above criteria: greenhouse gas emissions; loss of biodiversity and critical ecosystem services; community relations and stakeholder engagement; human rights; health and safety as well as corporate ethics and integrity.

These criteria provide useful starting points for member banks to assess ESG risks. Considering that different activities vary on their key ESG risks, the guideline lacks clarity on the extent to which each of these ESG risks is material to the different industries. It also leaves member banks the liberty to determine their own levels of thresholds for acceptable practices, depending on their individual risk appetites.

3.3.2 Sector-specific policies

Some ASEAN financial institutions have developed sector-specific policies to articulate their approach towards activities deemed to carry high ESG risks. For instance, all three Singapore banks – DBS Bank, OCBC Bank and United Overseas Bank – announced in 2019 that they will stop financing new coal-fired power plants, becoming the first in Southeast Asia to align with their western counterparts on this topic. This is a positive move since it was only in 2018 that these same banks permitted coal financing on certain conditions. Furthermore, since 2012, Singapore banks extended some US\$2.29 billion loans to 21 coal power projects, especially in Indonesia and Vietnam.¹⁰⁹

The banks have since published their policies to prohibit financing new coal-fired power plants.

"We prohibit new corporate financing or project financing of coal-fired power plants in any location, except where there is an existing commitment, effective 16 April 2019.

We prohibit new financing of Lignite Coal Mines.

As part of our ESG Risk Assessment Framework, we perform enhanced E&S due diligence on our clients for all energy-related loans, referencing:

- (a) International Finance Corporation (IFC) Performance Standards,*
- (b) Equator Principles (EP),*
- (c) Local/National laws and regulations."*

Source: Local bank 1

"...we have decided to cease financing new coal-fired power plants (CFPP) in any market regardless of the efficiency of technologies used, after honouring our existing commitments. The last of these existing commitments is likely to be completed by 2021. This aligns our financing policy for CFPP with a trajectory that is more ambitious than the SDS and the pathways described in IPCC SR15."

Source: Local bank 2

"[the bank] prohibits new financing of coal fired power plant projects and has not financed such projects since January 2018. We also prohibit the project financing of greenfield thermal coal mines. Within the thermal coal sector, our financing is limited to mines that have calorific values corresponding to sub-bituminous or higher grade coal. [The bank] will continue to engage with and support our clients in their transition to lower carbon energy sources."

Source: Local bank 3

While all three policies forbid the financing of new coal-fired power plants, it is worth noting that there are also different types of coal. For instance, lignite and sub-bituminous coals are considered low rank coals with higher moisture content and lower carbon/ energy content. Lignite, also known as 'brown coal' is converted from peat and after millions of years, the persistent effects of temperature and pressure transforms the lignite into 'sub-bituminous' coals.¹¹⁰

Apart from the nuances around types of coal, the policies also allude to the processes such as the efficiency of the technologies adopted. While ending financing for coal power generation is positive, it is also equally important to refrain from other coal-related activities such as coal mining due to the significant ESG risks involved.

In addition, financial institutions would do well to improve their disclosure around how E&S risks from *existing* dirty, polluting industries such as coal are minimised. This will not only build trust and increase accountability among stakeholders, but more importantly, facilitate constructive dialogues with various stakeholders such as government agencies and non-governmental organisations (NGOs) to develop viable solutions collectively.

3.3.3 Local laws as priority

Some ASEAN financial institutions reference international sustainability standards, frameworks and / or principles selectively. This could be in the form of looking to these documents for guidance on environmental concerns generally while adhering to local laws on social issues. Another possibility is to focus on a few areas – such as non-compliance and forced labour – in its policies and help to raise clients' awareness around these sustainability issues. This could stem from their perception that adherence to local laws is key to securing their social licence to operate as well as their limited leverage – as compared to more influential financial institutions like the IFC and World Bank – to impose international labour standards on the local communities.

Human Rights Policy

"The Bank upholds and complies with international human rights laws and standards...In the event that prevailing local laws in a country in which the Bank or its suppliers operate conflict with international human rights obligations, the Bank shall consider complying to the country's local law while taking into account the international human rights practices.

Human Rights in Relation to Investment and Business Practices

...For implementation efficiency, the Bank sets a framework for responsible lending by adopting and applying selected practices from the Equator Principles for assessing social and environmental risks in the credit evaluation process..."

Source: ASEAN bank

Some of the interviewees acknowledged that not all industries will be impacted by the ESG issues covered within their sustainable financing policies and see this process as a journey. One interviewee also pointed out that the bank is currently concerned with how it can ensure its clients are totally compliant since the supply chain is complex; it may have to rely on external verification for the claims which clients make in their self-assessment.



PART 4: RECOMMENDATIONS AND BEST PRACTICES

Overview

“Infrastructure projects are intended to provide a stream of services for many years. This presents many challenges - our society’s needs will change, new technologies will emerge, and the long-term costs of maintaining infrastructures will form a large part of the costs in the years ahead. We should seek to make infrastructure as ready for the future as possible, so as to maximise its benefits over costs in the long run.”

Mr. Heng Swee Keat

Deputy Prime Minister and Minister for Finance, at the Asia Singapore Infrastructure Roundtable 2018, 23 October 2018¹¹¹

In the face of significant infrastructure needs and opportunities in ASEAN, substantial barriers exist that hinder capital from flowing towards sustainable infrastructure. The earlier sections of this report highlighted the lack of a common language around what sustainable infrastructure looks like, since financiers and project developers differ on the risks they consider. The existence of various sustainability standards used to evaluate projects also requires harmonisation. Sustainable infrastructure would address the following: (1) Climate reduction targets; (2) Diversity and Inclusion; (3) Poverty alleviation; (4) Greenwashing risks and (5) Technology/ data driven E&S solutions.

This section provides recommendations for different stakeholders to improve their understanding of how key E&S risks should be viewed and addressed in the power and transport sectors in ASEAN. A comprehensive identification of E&S risks has the potential to inform the mitigation measures to be taken to minimise the E&S risks. This may eventually improve the bankability of an infrastructure project in the long run. Greater standardisation around ESG risk profiles of infrastructure projects, and following which, standardisation in the form of ratings or impact reporting, could also facilitate the participation of institutional capital.

4.1 Singapore government and industry associations

First, the Singapore government could take the lead in ASEAN to set up a platform featuring a pipeline of local power and transport projects available for investments, and to disclose the results of the Environmental and Social Impact Assessments of each project. At the minimum, these ESIAAs should cover the E&S risks identified in Part 2 of the report, namely (1) loss of biodiversity, (2) greenhouse gas emissions, (3) resettlement and compensation, (4) workers' health and safety as well as working conditions, and (5) the inclusion of marginalised groups. This move will send a strong signal to project developers to consider the same E&S risks and to improve the quality of the pipeline.

Second, the Singapore government and industry associations, such as the Association of Banks in Singapore, could work together to provide a standard E&S evaluation framework for the power and transport sectors. This builds on existing initiatives such as the ABS Responsible Financing Guidelines. Currently, not all financial institutions have the internal capacity or expertise to develop their own E&S frameworks for power and transport projects. A standard framework serves as a minimum criteria to help the industry to move towards a common understanding and empower financial institutions to support their clients on project preparation. Banks could further adapt this framework according to their internal competitive, risks and strategic considerations. The recommendations by the Task Force on Climate-related Financial Disclosures as well as the Blueprint for Mobilising Finance Against Slavery and Trafficking offer a starting point. More guidance could be provided on other topics such as biodiversity. Environmental and social cost benefit analysis should be critical components of the evaluation process.

Third, Singapore's statutory boards, government entities and large companies should be encouraged to look at Green Financing as an option to raise funds. The government can consider financing infrastructure projects through green bonds or other green finance instruments rather than relying on the national budget or reserves. Green bond issuance by statutory boards such as the Land Transport Authority not only sends a strong signal of the government's support for green financing, but also encourages project developers to align their practices with the government's green and sustainability criteria.

4.2 ASEAN governments

First, ASEAN governments could convene an Infrastructure Summit to emphasise the MPAC 2025 as a regional blueprint for infrastructure projects in ASEAN, grow initiatives by each ASEAN member state and track sustainable finance flows to power and transport projects. Under the MPAC 2025, ASEAN has published an initial pipeline of 19 projects which is a good start, but a more robust pipeline is needed to fulfil the region's infrastructure demand. The Summit could provide a platform to identify the parameters of sustainable infrastructure and explore ways to grow these projects in each ASEAN member state. In addition, ASEAN governments could take this opportunity to commit to using green and sustainable financing to meet the infrastructure gaps as well as measure and track the flow of capital to power and transport projects. This will add credibility to governments' commitments and provide more clarity on the green investment gaps where private capital is needed.

Second, ASEAN governments, together with multilateral institutions and industry players, could train and equip workers with sustainability skills and knowledge in the renewable energy and sustainable transport sectors. One interviewee observed that the transition to renewables will hurt employees in fossil fuel-reliant industries. Besides imparting relevant skills, equipping workers with an understanding of ESG principles and how to address those upfront during project conceptualisation is crucial. Building on the Technical and Vocational Education and Training (TVET)¹¹² in ASEAN member states, the public and private sectors in ASEAN can collaborate to provide training on key E&S risks and how to manage them in the power and transport sectors. The training programmes could further link participants to internship opportunities in different ASEAN countries so that participants can gain practical working experience and in turn, strengthen the sustainability expertise of project developers. This could further improve the common language used by both financial institutions and project developers when considering key E&S risks.

Third, the ASEAN Secretariat could take the lead in developing a directory of green and sustainable funds for infrastructure projects in the region. The green and sustainable funds listed on this directory should disclose their expectations regarding the management of key E&S risks, such as those found in the power and transport sectors. In addition, the directory could showcase projects financed by these funds and the key parameters considered. This would improve the matching of capital with suitable projects when E&S risks are identified and managed in a mutually-agreeable way, in view of the local context.

4.3 Financial institutions

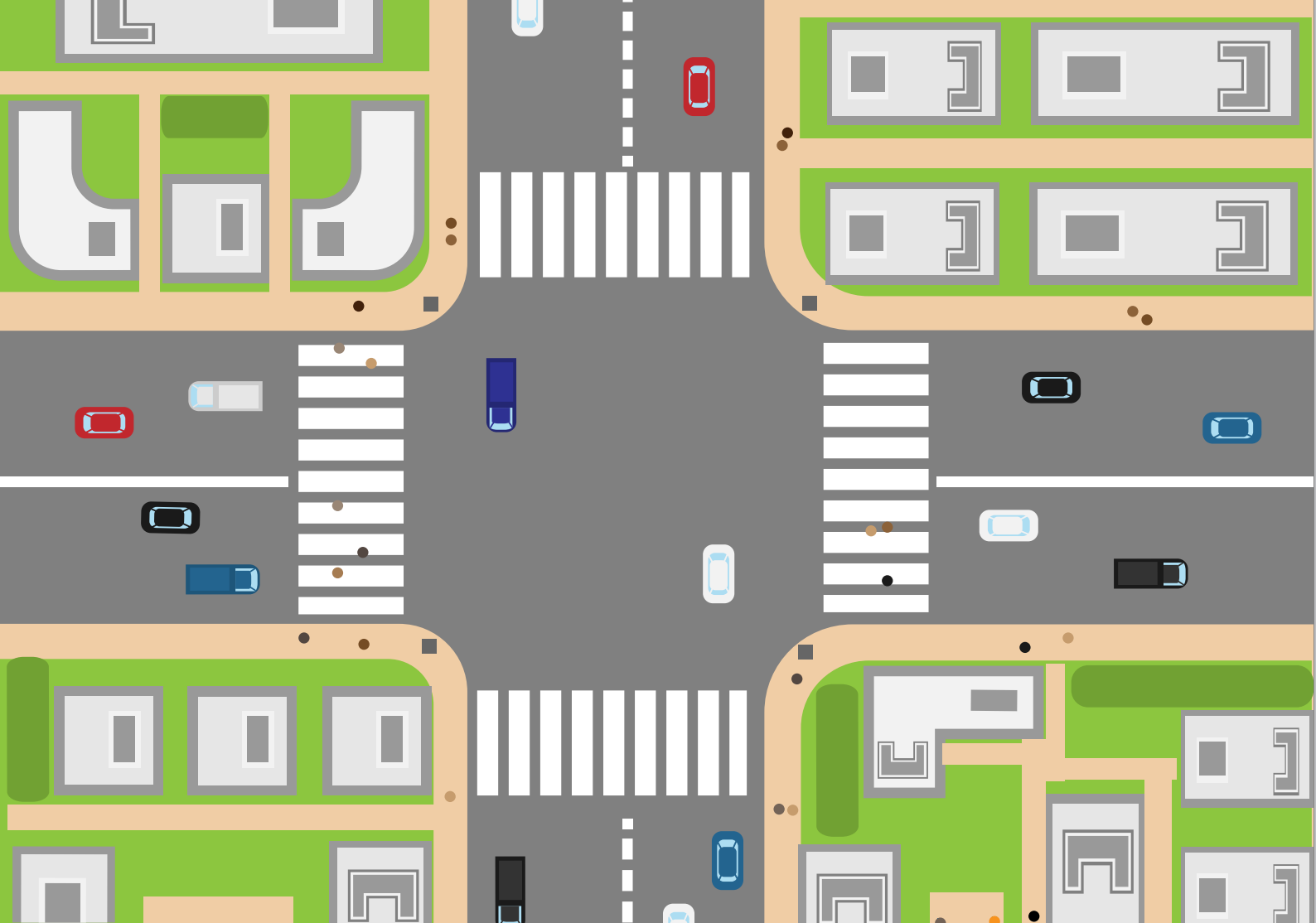
First, financial institutions with an interest in ASEAN's power and transport sectors should disclose their sustainability policies with the key E&S risks incorporated, as well as general guidelines on how the financial institutions handle context-specific challenges in countries where they operate. Considering the greater scrutiny from the public, the media, investors and shareholders, there is greater demand placed on financial institutions today to be accountable for their financing decisions. At the same time, ASEAN countries take time to transition to renewables and sustainable transport, and some of the sustainability challenges may be unique to the local context. By providing general guidelines on how they approach context-specific challenges in power and transport, these financial institutions can inform local project developers about their expectations while promoting constructive dialogues with other stakeholders.

Second, financial institutions should cover the key E&S risks in their monitoring efforts and tailor the frequency of monitoring according to the duration of project construction. Independent auditors should also be involved in carrying out assessments after the project is completed, in order to identify new risks the local community may be exposed to, such as increased air and water pollution. Financial institutions should be prepared to work with their clients to mitigate these new risks.

Third, financial institutions could develop expertise in specialised financing, particularly infrastructure financing or green investments. Financial institutions could cultivate experts with specialisations and financing experience in climate adaptation or other sustainable development areas to better capture the region's untapped opportunities in sustainable infrastructure.

4.4 Financial services providers

Ratings agencies could develop a rating mechanism for the E&S impacts of power and transport projects. The projects could be assessed on a scale on how well they address the key E&S factors under the E&S evaluation framework recommended on Page 33.



CONCLUSION

ASEAN is at a critical crossroads, having to balance its hunger for economic growth with its responsibility to address sustainability concerns. This is especially challenging considering that many ASEAN governments are prioritising infrastructure development to boost their domestic economies and adjust to evolving international dynamics. These include China's ambitious Belt and Road Initiative and competition from major powers such as Japan.

Notably, infrastructure development such as the power and transport sectors comes with its share of E&S risks. While various financial institutions have either adopted international sustainability standards, frameworks and / or principles or developed their in-house policies and guidelines to better identify and mitigate E&S risks, the disparity in approaches suggests that these E&S risks are unlikely to be dealt with in a consistent manner. The current portfolios of financial institutions may be exposing them to more E&S risks than anticipated.

With many infrastructure projects yet to be constructed in ASEAN, this report hopes to bring different stakeholders to a common starting point where further dialogues can be inspired. As some of the historical cases show, sustainability needs to be incorporated at the planning stage, but monitoring E&S impacts throughout a project's lifecycle is equally important. Without taking the necessary steps to pursue sustainable infrastructure now, infrastructure development which benefits the present, may come at the cost of future generations.

Annex A

Methodology

This report is a preliminary assessment of the baseline of financing sustainable infrastructure in ASEAN, drawing upon secondary research, two working group meetings and closed-door interviews.

A total of 118 people from 49 organisations were involved. These organisations ranged from government agencies, multilateral organisations, banks, investors and project developers, financial services companies, non-governmental organisations (NGOs) and academics. The composition of the participants and their organisations are reflected in Chart 1A and 1B respectively.

Within the financial institutions, the SIIA spoke to representatives from a range of functions. Where applicable, the SIIA interviewed those tasked with developing in-house policies to understand the disparities with international standards, frameworks and principles. In addition, the SIIA consulted employees implementing the financing activities to find out the challenges they face in applying these international and in-house standards, frameworks and / or principles in different ASEAN countries.

While the SIIA is primarily interested in the international and ASEAN financial institutions with a presence in Singapore, the Institute also recognises that some sustainability policy and / or financing personnel are based abroad. Where possible, the SIIA sought to interview them during its trips to Jakarta, Bangkok and Manila.

The interviews are complemented by the SIIA's observations of financial institutions' disclosures in the public domain. However, the level of detail varies across organisations with some providing general statements while others disclose policies for selected sectors only. One reason is that the banks may see their customised policies and / or guidelines as an internal document.¹¹³

Chart 1A
Breakdown of Participants (n=118)

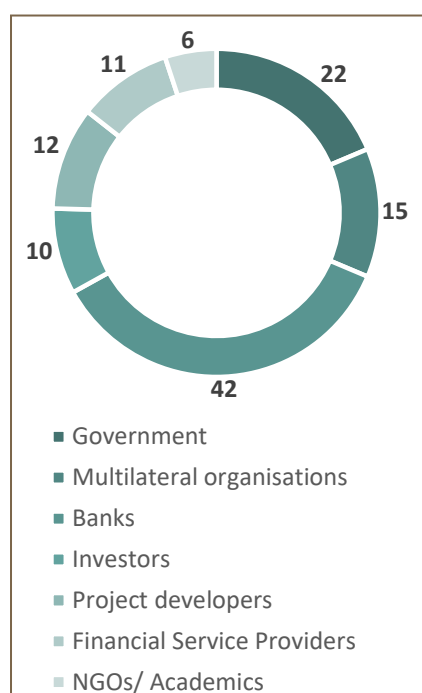
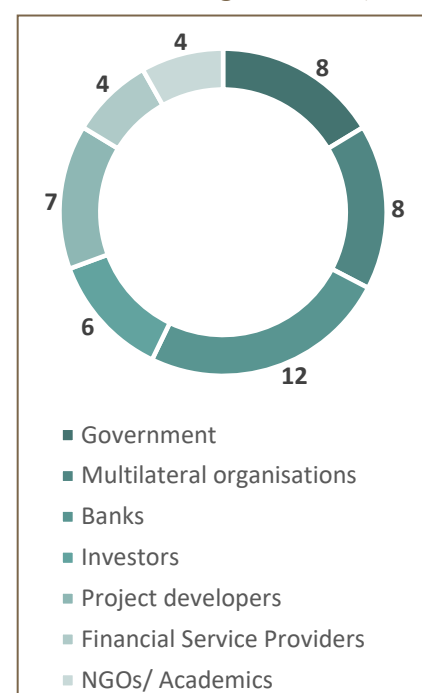


Chart 1B
Breakdown of Organisations (n=49)



Annex B

3.2.1 Environmental Risks

3.2.1.1 Loss of biodiversity

IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	ADB Safeguard Policy Statement: Biodiversity Conservation and Sustainable Natural Resource Management
"As a matter of priority, the client should seek to avoid impacts on biodiversity and ecosystem services. When avoidance of impacts is not possible, measures to minimize impacts and restore biodiversity and ecosystem services should be implemented. Given the complexity in predicting project impacts on biodiversity and ecosystem services over the long term, the client should adopt a practice of adaptive management in which the implementation of mitigation and management measures are responsive to changing conditions and the results of monitoring throughout the project's lifecycle."	"...The assessment will focus on the major threats to biodiversity, which include destruction of habitat and introduction of invasive alien species, and on the use of natural resources in an unsustainable manner. The borrower/client will need to identify measures to avoid, minimize, or mitigate potentially adverse impacts and risks and, as a last resort, propose compensatory measures, such as biodiversity offsets, to achieve no net loss or a net gain of the affected biodiversity."

Both the IFC Performance Standard 6 and the ADB Safeguard Policy Statement require their clients to take steps to avoid adverse impacts on biodiversity and ecosystem services, and to minimise these consequences if avoidance is not possible.

Where the client is unable to minimise the adverse impacts, the ADB will require mitigation efforts to lessen the severity and to provide compensatory measures such as biodiversity offsets as a last resort.

In contrast, clients of the IFC will be required to take steps to restore biodiversity and ecosystem services. It further specifies the need to adapt mitigation and management measures to the evolving conditions and outcomes of monitoring throughout the lifecycle of the project. For the protection and conservation of biodiversity, the IFC's Performance Standards also set forth the mitigation hierarchy which includes biodiversity offsets (not mentioned in the above table). Biodiversity offsets may be considered only after appropriate avoidance, minimisation, and restoration measures have been applied.

3.2.1.2 Greenhouse gas emissions

IFC Performance Standard 3: Resource Efficiency	ADB Safeguard Policy Statement: Greenhouse Gas Emissions
<p>“... the client will consider alternatives and implement technically and financially feasible and cost-effective options to reduce project-related GHG emissions during the design and operation of the project. These options may include, but are not limited to, alternative project locations, adoption of renewable or low carbon energy sources, sustainable agricultural, forestry and livestock management practices, the reduction of fugitive emissions and the reduction of gas flaring.</p> <p>For projects that are expected to or currently produce more than 25,000 tonnes of CO₂-equivalent annually, the client will quantify direct emissions from the facilities owned or controlled within the physical project boundary, as well as indirect emissions associated with the off-site production of energy used by the project. Quantification of GHG emissions will be conducted by the client annually in accordance with internationally recognized methodologies and good practice.”</p>	<p>“The borrower/client will promote the reduction of project-related anthropogenic greenhouse gas emissions in a manner appropriate to the nature and scale of project operations and impacts. During the development or operation of projects that are expected to or currently produce significant quantities of greenhouse gases, the borrower/client will quantify direct emissions from the facilities within the physical project boundary and indirect emissions associated with the off-site production of power used by the project. The borrower/client will conduct quantification and monitoring of greenhouse gas emissions annually in accordance with internationally recognized methodologies. In addition, the borrower/client will evaluate technically and financially feasible and cost-effective options to reduce or offset project-related greenhouse gas emissions during project design and operation, and pursue appropriate options.”</p>

Both the IFC Performance Standard 3 and the ADB Safeguard Policy Statement have largely similar requirements to address the challenge of greenhouse gas emissions. In particular, clients have the responsibility to quantify the direct emissions produced by the facilities within the physical project boundary as well as the indirect emissions linked to the off-site production of energy used by the project. In addition, both standards encourage their clients to seek and implement alternatives that can help to lower project-related greenhouse gas emissions at the project design and implementation stage.

The main difference is that the IFC Performance Standard 3 requires these steps to be adopted for projects “that are expected to or currently produce more than 25,000 tonnes of CO₂- equivalent annually” whereas the ADB Safeguard Policy Statement targets “projects that are expected to or currently produce significant quantities of greenhouse gases”, leaving it open to interpretation.

3.2.2 Local communities-related risks

3.2.2.1 Resettlement and livelihood

IFC Performance Standard 5: Community Engagement	ADB Safeguard Policy Statement: Consultation and Participation
<p>“The client will engage with Affected Communities, including host communities, through the process of stakeholder engagement described in Performance Standard 1. Decision-making processes related to resettlement and livelihood restoration should include options and alternatives, where applicable. Disclosure of relevant information and participation of Affected Communities and persons will continue during the planning, implementation, monitoring, and evaluation of compensation payments, livelihood restoration activities, and resettlement to achieve outcomes that are consistent with the objectives of this Performance Standard. Additional provisions apply to consultations with Indigenous Peoples, in accordance with Performance Standard 7.”</p>	<p>“The borrower/client will conduct meaningful consultation with affected persons, their host communities, and civil society for every project and subproject identified as having involuntary resettlement impacts. Meaningful consultation is a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues. Consultation will be carried out in a manner commensurate with the impacts on affected communities. The borrower/client will pay particular attention to the need of disadvantaged or vulnerable groups, especially those below the poverty line, the landless, the elderly, female headed households, women and children, Indigenous Peoples, and those without legal title to land.”</p>

Both the IFC Performance Standard 5 and the ADB Safeguard Policy Statement highlight that engagement and consultation with the affected communities are to be conducted throughout the project lifecycle. However, the ADB Safeguard Policy Statement further illuminates the process of consultation and emphasises the disadvantaged or vulnerable groups within these communities who deserve greater attention. Compensation for land and assets are linked to livelihoods. One interviewee noted that cash compensation is often not sufficient to replace the assets; once the cash is depleted, the affected people would lack support for their livelihoods. Another interviewee also recommended appointing people who can be trusted by the local communities, to engage with these stakeholders.

3.2.2.2 Local communities' health and safety

IFC Performance Standard 4: Occupational Health and Safety	ADB Safeguard Policy Statement: Community Health and Safety
<p>"The client will evaluate the risks and impacts to the health and safety of the Affected Communities during the project life-cycle and will establish preventive and control measures consistent with good international industry practice (GIIP), such as in the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) or other internationally recognized sources. The client will identify risks and impacts and propose mitigation measures that are commensurate with their nature and magnitude. These measures will favour the avoidance of risks and impacts over minimization."</p>	<p>"The borrower/client will identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts. These measures will favour the prevention or avoidance of risks and impacts over their minimization and reduction. Consideration will be given to potential exposure to both accidental and natural hazards, especially where the structural elements of the project are accessible to members of the affected community or where their failure could result in injury to the community. The borrower/client will avoid or minimize the exacerbation of impacts caused by natural hazards, such as landslides or floods, that could result from land use changes due to project activities."</p>

Both the IFC Performance Standard 4 and the ADB Safeguard Policy Statement establish the importance of identifying and assessing the risks and potential impacts to the health and safety of affected communities. Clients are also required to implement preventive measures that will help to avoid rather than minimise these risks.

While the IFC Performance Standard 4 provides examples of good international industry practice, the ADB Safeguard Policy Statement on the other hand requires clients to take into account accidental and natural hazards.

3.2.2.3 Lack of grievance mechanisms for affected communities

IFC Performance Standard 1: External Communications and Grievance Mechanisms	ADB Safeguard Policy Statement: Grievance Redress Mechanism (with respect to Environment)
<p>“Where there are Affected Communities, the client will establish a grievance mechanism to receive and facilitate resolution of Affected Communities’ concerns and grievances about the client’s environmental and social performance. The grievance mechanism should be scaled to the risks and adverse impacts of the project and have Affected Communities as its primary user. It should seek to resolve concerns promptly, using an understandable and transparent consultative process that is culturally appropriate and readily accessible, and at no cost and without retribution to the party that originated the issue or concern. The mechanism should not impede access to judicial or administrative remedies. The client will inform the Affected Communities about the mechanism in the course of the stakeholder engagement process.”</p>	<p>“The borrower/client will establish a mechanism to receive and facilitate resolution of affected peoples’ concerns, complaints, and grievances about the project’s environmental performance. The grievance mechanism should be scaled to the risks and adverse impacts of the project. It should address affected people’s concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no costs and without retribution. The mechanism should not impede access to the country’s judicial or administrative remedies. The affected people will be appropriately informed about the mechanism.”</p>

The IFC Performance Standard 1 addresses the client’s E&S performance broadly while the ADB Safeguard Policy Statement pertains to the project’s environmental performance more specifically. Nonetheless, both documents share many common features, including ensuring that the grievance mechanism is scaled to the risks and adverse impacts of the project; address or resolve the concerns promptly; as well as making it readily accessible to all segments of the affected communities. The ADB also points out that the process should be gender responsive, which will help to improve engagement with women in these communities.

One interviewee pointed out that, in practice, meaningful consultation with affected communities is a process which involves listening to the communities, addressing their concerns and listening to them again. Most of these grievances arise because the local communities have no jobs. There are also powerful people within the local communities who may control who gets access to jobs. As such, the company needs to ensure that there is sufficient information provided and a good Corporate Social Responsibility Manager is deployed on the ground.

Another interviewee also pointed out that a good grievance mechanism should also be transparent in its process, for instance by stipulating the duration of response time so that stakeholders’ expectations can be better managed.

3.2.3 Worker-related risks

3.2.3.1 Workers' health and safety

IFC Performance Standard 2: Occupational Health and Safety	ADB Safeguard Policy Statement: Occupational Health and Safety
"... The client will take steps to prevent accidents, injury, and disease... by minimizing, as far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice, as reflected in various internationally recognized sources..., the client will address areas that include the (i) identification of potential hazards to workers, particularly those that may be life-threatening; (ii) provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) training of workers; (iv) documentation and reporting of occupational accidents, diseases, and incidents; and (v) emergency prevention, preparedness, and response arrangements."	"... The borrower/client will take steps to prevent accidents, injury, and disease... by (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to work-ers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place."

Both the IFC Performance Standard 2 and the ADB Safeguard Policy Statement are largely similar in terms of identifying potential hazards to workers, putting in place preventive and protective measures, providing training to workers, ensuring that occupational accidents, diseases and incidents are documented and reported as well as establishing emergency prevention, preparedness and response measures. Moreover, the ADB requires its clients to minimise potential hazards and this is tied to its stipulation to provide workers with appropriate equipment. The use of such equipment among workers should be mandated and enforced.

3.2.3.2 Lack of grievance mechanisms for workers

IFC Performance Standard 2: Grievance Mechanism	ADB Safeguard Policy Statement
<p>“The client will provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The client will inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them. The mechanism should involve an appropriate level of management and address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned, without any retribution. The mechanism should also allow for anonymous complaints to be raised and addressed. The mechanism should not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.”</p>	<p>No relevant clause was identified.</p>

The IFC Performance Standard 2 sets forth the requirements in providing grievance mechanisms to workers but a similar clause is not found in the ADB Safeguard Policy Statement at the time of writing. The characteristics of grievance mechanisms for workers are distinct from that of affected communities in a few ways. For instance, in the case of grievance mechanisms for workers, it needs to involve an appropriate level of management as well as allow workers to remain anonymous. This arrangement is critical to protect workers’ interests and ensure that errant practices would be properly investigated.

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- ¹¹³ The SIIA's first sustainable infrastructure working group meeting, 30 July 2019.

PARTICIPATING ORGANISATIONS¹

1	Asian Development Bank (ADB)
2	Asian Infrastructure Investment Bank (AIIB)
3	Aviva Investors
4	Bank of Ayudhya PCL
5	Berkeley Energy
6	BTPN
7	Capital Advisors Partners Asia Pte Ltd
8	Charoen Pokphand Group Co., Ltd
9	Clifford Capital Pte Ltd
10	DBS Bank Ltd
11	Department of Energy, Republic of the Philippines
12	Eastspring Investments (Singapore) Limited
13	Embassy of France in Singapore
14	Embassy of Japan in Singapore
15	ENGIE Asia Pacific
16	HSBC
17	InfraCo Asia Development Pte Ltd
18	Infrastructure Asia
19	Infrastructure NSW
20	ING Bank
21	International Finance Corporation (IFC)
22	Japan Bank for International Cooperation (JBIC)
23	KPMG
24	Maybank Singapore Limited
25	Ministry of National Development Planning, Republic of Indonesia (BAPPENAS)
26	Monetary Authority of Singapore
27	MUFG Bank, Ltd
28	OCBC Bank
29	PricewaterhouseCoopers LLP
30	PT Indonesia Infrastructure Finance
31	PT Sarana Multi Infrastruktur (Persero) (PT SMI)
32	Securities and Exchange Commission Philippines
33	Sembcorp Industries Ltd
34	Siam Commercial Bank PCL
35	SMEC
36	Societe Generale
37	Standard Chartered Bank
38	Stock Exchange of Thailand
39	Surbana Jurong Private Limited
40	Syracuse University
41	Thailand Development Research Institute (TDRI)
42	Thailand Environment Institute (TEI)
43	United Nations Development Programme (UNDP)
44	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
45	United Nations Framework Convention on Climate Change (UNFCCC)
46	United Overseas Bank Limited
47	Vena Energy
48	World Bank Group
49	World Resources Institute (WRI) Indonesia

¹The list of participating organisations includes financial and non-financial institutions, such as government agencies and corporations that the SIIA engaged with in the course of this study.

NOTES

About the Singapore Institute of International Affairs

Established in 1962, the Singapore Institute of International Affairs (SIIA) is a non-profit and independent think tank committed to producing policy analysis, fostering in-depth dialogues and bridging gaps between policymakers, private sector decision-makers and experts to shape public policy and social responses. Centred around ASEAN focused themes, the institute aims to deliver policy analysis in international affairs and on issues driving environmental sustainability. The SIIA has been consistently ranked as one of the leading think tanks in Southeast Asia and the Pacific, in the Global Go-To Think Tank Index by the University of Pennsylvania. Since 2017, the SIIA was ranked the No. 1 independent think tank in Asia. It was also recognised as one of the top 50 think tanks globally, excluding the United States of America. In 2019, it was recognised as the No. 1 think tank in South, Southeast Asia and Pacific (excluding India).





About the SIIA Sustainability Programme

The SIIA's Sustainability Programme was established in 1997 when it organised Singapore's first haze dialogue with the Singapore Environment Council. Since then, the Sustainability Programme has evolved to address sustainability issues ASEAN faces with a focus on the haze and resource sector and using finance as a lever to advance sustainability in the supply chain. As part of its Sustainability Programme, the SIIA facilitates dialogues between government, private sector and non-governmental organisations (NGOs) to prevent and mitigate the recurrence of transboundary haze. One of the key platforms is the SIIA's flagship event, the Singapore Dialogue on Sustainable World Resources (SDSWR). Since it was launched in 2014, the annual event attracts about 300 high-level participants from government, private sector, academia and NGOs to share best practices and discuss new commitments and noteworthy cross-sector collaborations in ASEAN's resource sector.



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