WWF

SUSTAINABLE FINANCE

2019

SUSTAINABLE BANKING REGULATIONS IN ASEAN – RAISING THE BAR

ACKNOWLEDGEMENTS

Co-authors:
WWF: Sylvain Augoyard, Ted Kin Chen, Jeanne Stampe

Communications and PR:
WWF: Lotika Mehta
PR agency: Finsbury

WWF would like to thank the following people for their assistance:
Mishma Aelu Abraham, Anna Batenkova, Charmaine Chee, Hongxia Du, Amandine Favier, Sebastien Godinot, Matthias Kopp, Thu Le Thi, Anders Nordheim, Tayut Sirivorakanvanit, Mariska Adeline Sukmajaya, Pornradee Tangkaseranee, Huong Nguyen Thanh, Rizkiasari Yudawinata

This report is part of:
Asia Sustainable Finance Initiative

We would like to acknowledge the following donors for funding the report:

Supported by:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
based on a decision of the German Bundestag

The views expressed in this publication are the sole responsibility of the authors and do not necessarily reflect the opinion of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

GORDON AND BETTY MOORE FOUNDATION

Production and design:

Barney Jeffries and Catherine Perry (swim2birds.co.uk)

Published in December 2019 by WWF – World Wide Fund for Nature, Gland, Switzerland

WWF is one of the world's largest and most experienced conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature. WWF has worked with the finance sector for more than a decade via innovative collaborations that seek to integrate ESG risks and opportunities into mainstream finance so as to redirect financial flows to support the global sustainable development agenda. Our approach to sustainable finance leverages WWF's conservation expertise as well as our partnerships with companies on key issues such as water, energy, climate and food to drive sustainability. Positioned at the cutting-edge of sustainable finance internationally, WWF contributes directly to leading initiatives, including the European Commission's Technical Expert Group on Sustainable Finance and the development of an international green bonds standard. WWF also works directly with banks, financial regulators and industry associations across the world to drive system-level change. This has allowed us to strengthen lending and investment criteria for key industry sectors, provide insights and data on environmental and social risks, fulfil critical research gaps, help unlock innovations in sustainable finance products and convene key stakeholders to progress the sustainable finance agenda.

CONTENTS

INTRODUCTION 4

REGULATORY LANDSCAPE IN ASEAN 7

KEY FINDINGS 8

KEY RECOMMENDATIONS 10

CLIMATE MITIGATION AND NATURE PROTECTION – THE IMPERATIVE 11

A SENSE OF URGENCY AMONG FINANCIAL REGULATORS AND INVESTORS 13

ASSESSMENT FRAMEWORK – SCOPE AND METHODOLOGY 17

ASSESSMENT FRAMEWORK – OVERALL RESULTS 19

COUNTRY SNAPSHOT: CHINA 21

COUNTRY CHAPTERS 22

INDONESIA 23

MALAYSIA 25

SINGAPORE 28

THAILAND 31

VIETNAM 33

ABBREVIATIONS 36

ENDNOTES 37

INTRODUCTION

With the twin threats of the climate emergency and degradation of nature looming, humanity is facing an existential crisis. While the science has never been clearer, and public calls for action louder, there is an urgent need to scale up efforts to address these fundamental challenges. Our societies and economies depend on the crucial resources provided by nature, such as the atmosphere, forests, rivers, oceans, biodiversity and soils.

This natural capital provides us with the food, freshwater and medicine we need, as well as other critical ecosystem services such as pollination of food crops, air quality, water and climate regulation and moderation of extreme weather events. These services, made available for free by nature, have been valued at US$125-145 trillion per year in 2011,[1] at least two-thirds more than annual global GDP.[2]

Unfortunately, our current economic development pathways are not sustainable.

Based on current national commitments, the world is set for an average warming of at least 3°C above pre-industrial levels,[3] far beyond the 1.5°C targeted under the Paris Agreement. The recent Intergovernmental Panel on Climate Change (IPCC) *Special Report on Global Warming of 1.5°C*[4] stressed the urgency of the situation, outlining that CO2 emissions need to fall by about 45% by 2030 and to reach net zero by 2050 in order to limit global warming to 1.5°C.

CO2 EMISSIONS NEED TO FALL BY ABOUT 45% BY 2030 TO LIMIT GLOBAL WARMING TO 1.5°C

Climate change is an existing and mounting threat, with the 20 warmest years on record having occurred over the past 22 years.[5] Increasing global temperatures are associated with more frequent heatwaves (such as the historic heatwaves in Europe[6] and Japan[7] over the last two summers), increases in frequency and intensity of flooding and heavy precipitation events (including those associated with tropical cyclones), and an increase in intensity of droughts in some regions.

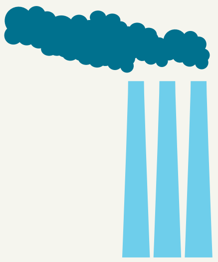
Alongside habitat destruction, pollution and overexploitation of species, climate change is one of the key drivers of biodiversity loss and natural capital degradation. According to the Living Planet Index, vertebrate populations have declined rapidly since 1970, falling by 40% for terrestrial species, 84% for freshwater species and 35% for marine species.[8] The latest report from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that one million animal and plant species are now threatened with extinction, more than ever before in human history.[9]

In its recent *Special Report on Climate Change and Land*, the IPCC revealed that 70% of our land has been altered by human activity. Agriculture, forestry, and other land uses are significant drivers of climate change, responsible together for 23% of man-made GHG emissions.[10] The IPBES report found that climate change alone is projected to result in an up to 25% decrease in fish biomass by the end of the century, and warned that if current fishing practices continue, there will be no more exploitable fish stocks in Asia Pacific by 2048.[11]

These fundamental changes already have significant financial repercussions. According to Munich Re, 2017 was the costliest year ever in terms of global weather disasters, with the total costs reaching US$320 billion, of which only US$130 billion were insured.[12] In 2018, the fourth costliest year, the economic impact of natural catastrophes worldwide was US$160 billion. Asia accounted for 74% of casualties worldwide and US$59 billion in losses, of which only US$18 billion was insured.[13]

Southeast Asian countries are particularly exposed to the physical impacts of climate change, such as sea level rise, heat stress, drought, flooding as well as the gradual loss of coral reefs and coastal ecosystems (e.g. mangroves).[14] These impacts exacerbate the degradation of natural resources already caused by unsustainable agriculture and fishing practices, mining and infrastructure developments in the region. A recent study found that Myanmar, the Philippines and Vietnam were among the 10 countries in the world most affected by climate change during the 1998-2017 period, while Thailand and Cambodia were in the top 20.[15]

While in developed countries, the insurance industry has historically been able to absorb most of these costs, this is likely to change as the physical impacts of climate change worsen. The Dutch central bank governor recently questioned the ability of the insurance industry to cover climate-related claims, in light of the mounting damages caused by extreme weather events,[16] while the CEO of AXA declared that *"a +4°C world is not insurable"*.[17] Some insurance and reinsurance companies have already terminated their coverage in certain areas, such as for those highly exposed to fire risks in California.[18]



84%

OF THE CURRENT AND PLANNED FOSSIL FUEL-FIRED POWER PLANTS IN ASEAN ARE INCOMPATIBLE WITH THE 1.5°C TARGET SET UNDER THE PARIS AGREEMENT

In Southeast Asia, a recent study from the Oxford Sustainable Finance Programme found that about 84% of the current and planned fossil fuel-fired power plants are incompatible with the 1.5°C target set under the Paris Agreement, and would have to be closed prematurely, creating stranded assets.[19] This risk is recognized by a growing number of major insurance and reinsurance companies (incl. Allianz, Axa, Swiss Re, and Munich Re),[20] and more recently Chubb,[21] which have issued coal divestment policies and will no longer provide insurance cover for coal-fired power plants, deemed incompatible with a low-carbon economy.

Globally, a report released by CDP in July 2019 revealed that 215 of the world's largest companies by market capitalization disclose almost US$1 trillion at risk from climate impacts (with many likely to hit within the next five years), including potentially US$250 billion in losses due to asset write-offs.[22]

Supply chains can also be severely hit, with disruptions due to environmental disasters having increased by 29% since 2012, according to the World Economic Forum.[23] In 2011, the unprecedented floods in Thailand affected 1.8 million households, resulted in more than 800 casualties, and about 18,000 square kilometres of farm lands were inundated. The overall economic damage and losses were estimated at US$46 billion, of which only about US$10 billion were insured. Local automotive and electronics industries were severely hit, the effects of which rippled across global supply chains.[24]

As risks associated with climate change and natural capital degradation increase, and the availability and cost of insurance worsen, the resulting reduction in credit quality and collateral value of loans will have significant impacts on ASEAN commercial banks. These banks are often the main source of capital for regionally headquartered companies, and particularly for micro, small and medium enterprises (MSMEs).

Many of these companies are at the early stages of their sustainability journey, and can be ill-equipped to face worsening environmental risks. In addition, MSMEs are often part of the supply chains of international companies, which are putting in place responsible sourcing strategies, in response to increasing pressure from their own customers, banks and investors.

HARMONIZATION OF SUSTAINABLE BANKING PRACTICES ACROSS ASEAN WOULD BRING CLEAR BENEFITS

While not adapting to these changes presents a range of commercial and financial risks for these companies and their banks, there are significant business opportunities in working to build resilient operations and meet international environmental and social (E&S) standards, ultimately contributing to the sustainable development of the ASEAN region.

In that respect, the harmonization of sustainable banking practices across ASEAN would bring clear benefits, as most regional banks and their clients have operations across the region. Financial regulators and banking associations have a key role to play in creating a level playing field, and in encouraging a ‘race to the top’ on sustainable finance, facilitating the financial sector’s contribution to the Paris Agreement and regional sustainable development objectives.

This report takes stock of the recent progress made by financial regulators and banking associations across ASEAN. It provides a comparative assessment of sustainable banking regulations and guidelines in five ASEAN countries (namely Indonesia, Malaysia, Singapore, Thailand and Vietnam) as well as in China, based on a newly developed framework. The report also assesses the banks’ level of alignment with the expectations set by the financial regulator or banking association in each of the five ASEAN countries, based on WWF’s assessment of banks’ E&S integration practices using the Sustainable Banking Assessment (SUSBA) tool.[25]

The report also includes recommendations for financial regulators and banking associations to enhance the resilience of the ASEAN financial sector, and to create the necessary conditions to fully mobilize private capital.

THE ASSESSMENT FRAMEWORK AND FINDINGS OF THE REPORT CAN BE USED BY:

Financial regulators and banking associations:
- To strengthen regulatory practices and expectations by integrating E&S considerations in regulations and guidelines;
- To benchmark themselves against regional peers, and build on the positive momentum to drive harmonization of sustainable banking regulatory practices;
- To understand the level of alignment of banks with their expectations (based on public disclosures).

Institutional investors:
- To understand key differences in the regulatory expectations affecting their portfolio banks in the different ASEAN countries;
- To support and inform their engagement with banks, government entities and policymakers.

Commercial banks:
- To identify any gap between their E&S integration practices and regulatory expectations;
- To understand the differences in the regulatory expectations in their different operating countries;
- To support and inform their engagement with government entities and policymakers.

REGULATORY LANDSCAPE IN ASEAN

The map below shows the regulations or guidelines pertaining to sustainable banking, issued either by financial regulators or banking associations in ASEAN, already in place or announced at the time of publication of this report.

VIETNAM

- **March 2015:** State Bank of Vietnam (SBV) issued Directive 03/CT-NHNN on Promoting Green Credit Growth and E&S Risks Management in Credit Granting Activities.
- **August 2018:** Publication of the SBV Decision 1604/QD-NHNN on Approving the Scheme on Development of Green Banks in Vietnam.

THAILAND

- **August 2019:** The Thai Bankers' Association (TBA) issued Sustainable Banking Guidelines - Responsible Lending, with support from Bank of Thailand (BOT).

CAMBODIA

- **February 2019:** The Association of Banks in Cambodia (ABC) issued the Cambodia Sustainable Finance Principles and its Implementation Guidelines.

PHILIPPINES

- **By end 2019:** Bangko Sentral ng Pilipinas (BSP) announced the upcoming issuance of a regulatory framework for sustainable finance, following an industry consultation phase.

MALAYSIA

- **November 2019:** Following public consultation, Bank Negara Malaysia (BNM) issued the Value-based Intermediation Financing and Investment Impact Assessment Framework for Islamic banking.

SINGAPORE

- **October 2015 (updated in June 2018):** The Association of Banks in Singapore (ABS) issued Guidelines on Responsible Financing.
- **November 2019:** The Monetary Authority of Singapore (MAS) announced its plan to release environmental risk management guidelines for consultation early 2020.

INDONESIA

- **July 2017:** The Financial Services Authority (OJK) issued the Regulation. No. 51/POJK.03/2017 on the Application of Sustainable Finance. For large commercial banks, the regulation came into force on January 1st, 2019.

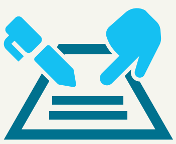
KEY FINDINGS

1. By the end of 2019, seven out of 10 ASEAN countries, representing more than 95% of the region's GDP, will have issued new or revised sustainable banking regulations or guidelines that expect banks to make sustainability an integral part of their overall business strategy. This is in line with bank sentiment in the region: 27 of the 29 banks assessed in SUSBA refer to sustainability in their strategy, and an increasing number of them reference sustainability in their leadership statement (20 vs. 17 last year).

2. All five regulations and guidelines assessed by WWF explicitly mention climate change and environmental degradation (such as deforestation and biodiversity loss) as part of the E&S issues that banks should seek to address when developing their sustainability strategies and policies. At present, 18 banks explicitly acknowledge the societal and economic risks associated with climate change, only 12 recognize deforestation and biodiversity loss as relevant risks in their clients' operations, and only four banks have policies to prohibit financing projects or companies adversely impacting UNESCO World Heritage Sites. Banks will therefore be expected to integrate climate-related and environmental risks in their policies, by starting to work with their clients on the identification and mitigation of such risks.

3. All of the five regulations and guidelines assessed expect banks to (i) strengthen their governance and risk management processes by fully embedding sustainability considerations, (ii) attribute clear responsibilities to their board or senior management, and (iii) put in place dedicated sustainability teams. This should lead to significant improvements in the banks' practices, as only 18 banks have assigned responsibilities over the implementation of their sustainability strategy to either their board or senior management, and only 10 banks disclose having dedicated E&S teams. Ultimately, this should help banks better understand and mitigate E&S risks associated with their clients' operations.

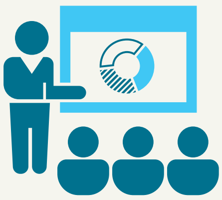
4. In all five countries, banks are now expected to train their staff and build internal capacity on sustainable finance and E&S integration, although only two regulations and guidelines explicitly mention the need to train senior management representatives. Across ASEAN, despite a noticeable improvement over the past three years (17 banks now disclose having such training programmes in place), there is still room for progress as only nine banks mention providing specific training to their senior management. Specific training programmes and workshops are being held in all five countries, either organized by or with backing from the financial regulators, often coordinated by the banking associations and in collaboration with civil society organizations such as WWF.



5. In four countries, the financial regulators or banking associations are leading the development of sector-specific E&S guidelines. In addition, banks in four countries are now expected to develop policies covering specific E&S issues or industry sectors. Despite a positive trend observed over the past three years, only 14 banks mentioned having such policies in place, and only eight actually disclose the policies, which are often limited to a small number of issues or sectors. Only seven banks include minimum requirements or recommendations based on internationally recognized sustainability standards in their policies, which unfortunately is not an expectation from financial regulators or banking associations in ASEAN.

6. In three countries, financial regulators are starting to expect banks to assess and mitigate their portfolio-level exposure to climate-related or other E&S risks. However, ASEAN financial regulators have not yet performed stress-testing of the financial sector on climate-related risks. In ASEAN, only two banks have conducted and disclosed a portfolio-level climate-risk assessment based on scenario analysis, and only two banks have disclosed a strategy to deal with climate risk. Coupled with the absence of robust E&S sector policies, banks are fuelling a vicious circle by continuing to finance unsustainable activities that exacerbate climate change, which then increases risks across their entire portfolio. However, with four ASEAN central banks or financial regulators being part of the NGFS, we expect to see improvements on these points.

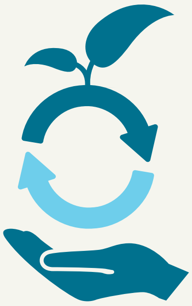
7. None of the financial regulators require banks to report in line with the TCFD recommendations. In addition, none of the financial regulators or banking associations expect banks to set targets to align their loan portfolios with the objectives of the Paris Agreement or to reduce the E&S impacts associated with their business activities. As a result, no ASEAN bank has set such targets. Our analysis of the ASEAN banks' readiness to report in line with the TCFD recommendations shows that significant improvements still need to be made. While on average, Singaporean banks fulfil more than two-thirds of the TCFD-related criteria in SUSBA, banks in other ASEAN countries do not fulfil more than one-third of the criteria. This is a concern as the growing pool of investors supporting the TCFD recommendations are not able to make informed decisions about the level of risks that banks in their portfolios are exposed to. It is worth noting that only one ASEAN bank has joined the UNEP FI Principles for Responsible Banking.



8. In all five countries, the financial regulator or banking association expect banks to publicly report on their sustainability strategy. Additionally, in four countries, banks are also expected to regularly report on implementation. Although there have been noticeable improvements over the past three years, disclosure practices of banks are still uneven within and across ASEAN countries. For instance, only five banks disclose statistics on the implementation of their E&S policies (e.g. number of transactions assessed, or declined based on E&S considerations). Despite being mentioned by the regulations or guidelines in only two countries, an increasing number of banks engage with stakeholders such as civil society representatives to improve their understanding of relevant E&S issues (14 vs. nine banks last year).

9. In four countries, financial regulators have put measures in place to foster the development of green financial products (or are planning to do so), which should enable banks to fully support the transition to a more resilient and sustainable economy. In December 2017, the ASEAN Green Bond Standards were released to provide guidance for ASEAN-based issuers. Currently, half of the ASEAN banks are providing financial products and services dedicated to green activities (with a focus on renewable energy and green buildings), while only three banks have set targets to increase the share of green financing in their portfolio. None of the assessed banks report engaging proactively with clients in sensitive sectors to support them in reducing negative E&S impacts.

KEY RECOMMENDATIONS



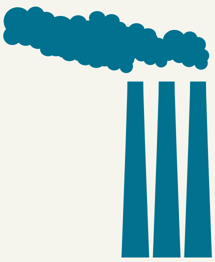
Over the past 18 months, ASEAN financial regulators and banking associations have significantly strengthened their expectations for banks to integrate E&S considerations into their business strategy and operations. However, in light of the climate and environmental crisis, banks and regulators should take additional steps to enhance resilience of the financial sector to the associated risks. Specific measures should be put in place to fully mobilize private capital for the transition to a low-carbon and sustainable economy.

SPECIFICALLY, WE RECOMMEND ASEAN FINANCIAL REGULATORS AND BANKING ASSOCIATIONS TO:

- Require banks to develop policies covering specific E&S issues or industry sectors based on internationally-recognized sustainability standards and certification schemes and engage proactively with clients to support them in transitioning to low-carbon and sustainable business models.
- Require banks to include oversight of sustainability strategy implementation and management of climate-related risks in the board's terms of reference and make training programmes mandatory for board members and senior management.
- Initiate stress-testing of the financial sector's resilience to climate-related and environmental risks, based on forward-looking scenario analysis.
- Require banks to assess portfolio-level E&S risk and set targets to align portfolios with the objectives of the Paris Agreement and other planetary boundaries.
- Strengthen disclosure requirements for banks on portfolio-level exposure to, and management of, climate-related and environmental risks, in line with TCFD recommendations. We also recommend that financial regulators require banks to disclose the E&S impacts associated with their business activities.
- Support the use of science-based 'green' and 'brown' taxonomies of economic activities which are consistent or comparable across countries, as well as of science-based and robust standards for green financial products.
- Join existing industry initiatives such as the Network for Greening the Financial System (NGFS) to benefit from peer-to-peer sharing on good practices, and actively participate in the development of tools and methodologies to integrate climate-related and environmental risks in banking supervision, macro-prudential regulations and monetary policies.
- Embrace multi-stakeholder approaches to address sustainable finance and E&S integration issues, by working together with banking associations and other stakeholders such as multilateral institutions, science-based organizations and academia.

CLIMATE MITIGATION AND NATURE PROTECTION – THE IMPERATIVE

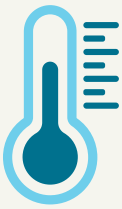
Ahead of the COP25 climate conference taking place in Spain in December 2019, the UN Environment Programme (UNEP) warned that as greenhouse gas emissions continue to rise, a *"dramatic strengthening"* of the countries' commitments to reduce emissions would be required in 2020. Achieving the 1.5°C target set in the Paris Agreement will *"require fundamental structural changes"*, and global emissions would have to be reduced by more than 7% each year for the next decade.[26]



UNEP WARNED THAT EMISSIONS CONTINUE TO RISE

The IPCC has highlighted the consequences of failing to meet this target. Under a 2°C warming scenario, twice as many people would suffer from water stress compared to 1.5°C, 99% of warm-water coral reefs would be lost, and there would be large increases in extreme weather events and risks related to sea level rise and ecosystem disruption.[27] Reaching higher levels of warming significantly increases the chances of reaching tipping points, which can create feedback loops that result in major and irreversible shifts in the climate system.[28]

Climate change amplifies the degradation of nature caused by human activities. For instance, both climate change and the intensification of land use are contributing to desertification and land degradation worldwide, which has resulted in a 23% reduction in global land surface productivity according to the latest IPBES report.[29] This report also highlighted that pollinator loss alone could put up to US$577 billion of annual crop output at risk globally, threatening food security.



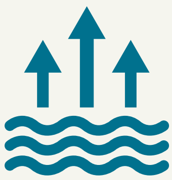
ACHIEVING THE 1.5°C TARGET WILL REQUIRE FUNDAMENTAL CHANGES

Oceans are particularly at risk too. In its recent *Special Report on the Ocean and Cryosphere in a Changing Climate*, the IPCC found that oceans are absorbing 90% of the excess heat in the atmosphere, while marine heatwaves are increasing in frequency and intensity.[30] Other impacts of climate change on oceans, such as ocean acidification and sea level rise, can have severe consequences for fisheries, aquaculture, tourism, as well as coastal cities and communities worldwide.

In addition to being sources of food and income, healthy and functioning ecosystems provide natural protection against the effects of climate change. Notably, the IPBES report highlighted that the loss of protection provided by coastal habitats (e.g. mangroves and coral reefs) could put 100-300 million people at increased risk from floods and hurricanes.

THE IMPLICATIONS FOR SOUTHEAST ASIA ARE PARTICULARLY CONCERNING

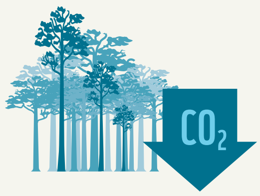
A 2017 study by the Asian Development Bank (ADB) found that unabated climate change would lead to *"deterioration of the Asian 'water towers', prolonged heat waves, coastal sea level rise and changes in rainfall patterns [that] could disrupt ecosystem services and lead to severe effects on livelihoods which in turn would affect human health, migration dynamics and the potential for conflicts."* [31]



UNABATED CLIMATE CHANGE WILL LEAD TO SEA LEVEL RISE

The physical impacts of climate change already have clear financial implications. A recent study led by Imperial College and SOAS University of London covering 48 climate-vulnerable countries (including Cambodia, Philippines and Vietnam) found that climate vulnerability has cost these countries US$62 billion in higher interest payments across the public and private sectors over the past decade. These additional interest payments are expected to increase to between US$146-168 billion over the next decade.[32] This creates a vicious circle, where the countries' ability to fund much-needed climate adaptation is hampered, increasing their vulnerability to climate change.

Unfortunately, some of the countries exposed to climate risks (such as Indonesia, the Philippines and Vietnam) are also some of the world's most underinsured countries where insurance penetration can be lower than 1%, increasing the financial burden for individuals directly affected by climate change and for taxpayers in general.[33] But it does not have to be all doom and gloom.



AVOIDED DEFORESTATION WAS FOUND TO BE A MAJOR GREENHOUSE GAS EMISSIONS ABATEMENT OPPORTUNITY

OPPORTUNITIES ABOUND IN THE TRANSITION TO A LOW-CARBON AND SUSTAINABLE WORLD

The transition to a more resilient and sustainable economy will require significant investments, but will generate substantial socio-economic opportunities and positive environmental outcomes. An ADB study assessing various climate scenarios found that costs associated with early decarbonization efforts lead to economic benefits that are five to 11 times larger, through avoided climate damage and other co-benefits. Avoided deforestation was found to be a major short-term low-cost greenhouse gas emissions abatement opportunity, particularly for Indonesia and Malaysia.[34]

The Global Commission on Adaptation, launched in 2018 by the UN Secretary General, found that investing in five areas critical to the adaptation to the physical impacts of climate change (early warning systems, climate-resilient infrastructure, improved dryland agriculture, mangrove protection, and investments in making water resources more resilient) would require total investments of $1.8 trillion globally over the 2020-2030 period. However, this could generate $7.1 trillion in total net benefits,[35] through the protection of nature, reduction of inequalities, job creation and sustained economic growth.

In Asia, there is a total US$1.2 trillion investment opportunity to develop sustainable land management practices over the 2018-2030 period, which could in turn generate US$4.2 trillion in economic benefits, with the potential to create 87 million rural jobs, improve livelihoods and contribute to climate adaptation.[36]

UNEP highlighted that, to bring the energy sector on a pathway consistent with a 1.5°C pathway, annual investment of between US$1.6 trillion and US$3.8 trillion would be required globally over the 2020-2050 period.[37]

These significant upfront investments will not be possible without the full involvement of the private sector. To deliver on "*making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development*", one of the key objectives of the Paris Agreement,[38] governments and public institutions also have a crucial role to play, by enabling this transition and facilitating further investments by the financial sector.

The development of incentives and standards for green financial solutions, such as green bonds or sustainability-linked loans, can support this objective. Such standards should be science-based and developed through a multi-stakeholder process, to ensure that appropriate safeguards are in place and that positive E&S impacts are delivered on the ground.[39] Blended finance structures, where public entities and multilateral financial institutions help reduce risks for mainstream banks and investors, are also powerful ways to mobilize capital at scale for projects in developing countries.

A SENSE OF URGENCY AMONG FINANCIAL REGULATORS AND INVESTORS

Climate change and environmental degradation are increasingly recognized by central banks, financial regulators, and policymakers around the world as a systemic risk and a threat to financial stability. In the absence of early and coordinated action, the mounting physical impacts of climate change may trigger abrupt policy changes leading to a sudden and large-scale collapse in asset prices, potentially leading to a *"climate Minsky moment"*.[40]

THE GLOBAL REGULATORY RESPONSE

A GROUP OF LEADING CENTRAL BANKS AND FINANCIAL SUPERVISORS, LAUNCHED THE NETWORK FOR GREENING THE FINANCIAL SYSTEM (NGFS) IN 2017

In recognition of these risks and to enhance the financial sector's role in meeting the Paris Agreement objectives, a group of leading central banks and financial supervisors, including the Monetary Authority of Singapore (MAS) and the People's Bank of China (PBOC), launched the Network for Greening the Financial System (NGFS) in December 2017. Since then, the network has grown significantly, and currently consists of 51 members and 12 observers, including the central banks and/or supervisors of Indonesia, Japan, Malaysia, Thailand and Hong Kong.

The NGFS supports knowledge-sharing and the development of tools and methodologies to integrate climate-related and environmental risks into banking supervision, macro-prudential regulations and monetary policies. In their first comprehensive report published in April 2019, NGFS members stressed the importance for regulators and financial institutions to manage climate- and environment-related financial risks.

Some financial regulators are starting to take concrete actions. In April 2019, the UK Prudential Regulation Authority (PRA) published its supervisory statement on *Enhancing banks' and insurers' approaches to managing the financial risks from climate change*.[41] The PRA expects firms to take a strategic approach by embedding climate-related risks in governance practices, using scenario analysis in risk identification processes, and improving disclosures on climate-related financial risks. By 2021, the Bank of England will conduct a stress test of the UK financial system' resilience to the financial risks posed by climate change, which will also help the financial sector to take *"full advantage of the enormous opportunities in a carbon-neutral economy"*.[42] In November 2019, the French central bank and financial regulator announced that it would *"subject banks and insurers to climate change stress tests"* in 2020.[43]

The Dutch central bank (DNB) issued a report in 2019 looking at the Dutch financial sector's exposure to a range of environmental and social risks, in particular water stress, raw material scarcity, biodiversity loss and human rights controversies, and issued high-level recommendations for financial institutions to strengthen E&S risk management practices and reduce the associated impacts.[44]

"Climate change ... threatens our socio-economic prosperity here in Southeast Asia. It presents a major economic issue with direct implications on financial stability"

Datuk Nor Shamsiah Mohd Yunusat, BNM Governor, September 2019

The NGFS continues to provide guidance to its members, such as with the publication in July 2019 of a technical supplement covering the modelling and monitoring of climate change impacts on the economy and the financial system, and offering preliminary views on how climate scenarios can be used.[45] NGFS members also emphasized the need for enhanced and consistent climate and environmental disclosures in the financial industry. More specifically, NGFS members encouraged *"all companies issuing public debt or equity as well as financial sector institutions to disclose in line with the [Task Force on Climate-related Financial Disclosures] TCFD recommendations"*, and prompted *"policymakers and supervisors to consider further actions to foster a broader adoption of the TCFD recommendations"*.[46]

Canada, France, and the United Kingdom are among the national governments supporting the TCFD. The UK announced that it expects *"all listed companies and large asset owners to disclose in line with the TCFD recommendations by 2022"*.[47]

"The world is at the beginning of mass extinction due to climate change, and so much more needs to be done"

Benjamin Diokno, BSP Governor, October 2019

ASEAN FINANCIAL REGULATORS ARE STEPPING UP TO THE PLATE

RECOGNITION OF CLIMATE AND ENVIRONMENTAL RISKS

In Southeast Asia, financial regulators and governments recognize the important role played by the finance sector. In a joint statement in April 2019, ASEAN finance ministers and central bank governors declared that *"sustainable finance plays an important role to improve our economic efficiency, prosperity, and competitiveness, while protecting and promoting ecological systems, and enhancing cultural diversity and social well-being"* and encouraged *"the banking community of ASEAN to gradually adopt the principles of sustainable finance into business practices"*.[48]

"Our financial institutions need to build up their resilience to climate change risks. [...] Climate change is the ultimate challenge for humankind."

Ong Ye Kung, MAS Board Member, November 2019[51]

Central banks and financial regulators also recognize the risks associated with climate change and have started to act.

At their recent Regional Conference on Climate Change, the governor of Bank Negara Malaysia (BNM) announced several measures to increase the Malaysian finance sector's understanding and management of climate-related risks. These include analytical work on risks transmission channels, the development of a green taxonomy followed by a requirement for banks to report on their exposure to climate risks, as well as working towards implementing the TCFD recommendations.[49]

"... not properly taking sustainability risks into consideration could result in serious risks, both financial and non-financial risks, that are large enough to impact the viability of the financial institutions themselves."

Veerathai Santiprabhob, BOT Governor, August 2019

The governor of Bangko Sentral ng Pilipinas (BSP) recently announced upcoming measures to promote sustainable finance. Capacity-building programmes are being put in place, and a regulatory framework will be issued soon, requiring banks to integrate sustainability principles in their strategy, corporate governance and risk management systems, as well as to assess their exposure to E&S risks using various scenarios in order to inform their business strategies.[50]

In Singapore, MAS announced in November 2019 a series of measures aimed at strengthening the financial sector's response to the increasing risks posed by climate change. These measures include increased supervision of the financial institutions' environmental risk management practices relating to governance, risk assessment and forward-looking scenario analysis (guidelines planned to be released for public consultation early 2020), as well as the provision of additional incentives for sustainable financial products.[52]

In Thailand, Bank of Thailand (BOT) recognizes the role played by the financial sector in driving the country's sustainable development and actively promotes sustainable finance, notably through the organization of dedicated conferences and workshops.[53] At the launch of Thailand's Responsible Lending Guidelines in August 2019, the BOT governor emphasized that financial institutions should internalize sustainability considerations, starting by securing commitments from top management, and should better understand their exposure to E&S risks.[54]

PUSH FOR GREATER TRANSPARENCY AND DISCLOSURE

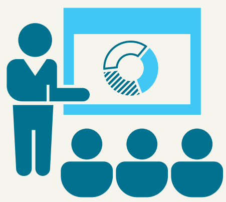
In February 2019, the Philippines Securities and Exchange Commission issued sustainability reporting guidelines, which include TCFD-related indicators for publicly listed companies to report on. In Southeast Asia, the Monetary Authority of Singapore, the Malaysian stock exchange and securities commission, as well as the two Vietnamese stock exchanges, are TCFD supporters. In Japan, both the stock exchange and the securities regulator are TCFD supporters, and several working groups have been set up at the government level to provide guidance on TCFD reporting.[55]

The ASEAN Capital Markets Forum is currently developing a Roadmap for ASEAN Sustainable Capital Markets, to spur sustainable development in ASEAN and attract international investors.[56]

UNEP FI PRINCIPLES FOR RESPONSIBLE BANKING

These increasing regulatory expectations come at a time where commercial banks themselves are taking action to develop their own industry code of conduct. In September 2019, the UNEP FI Principles for Responsible Banking (PRB) were launched during the United Nations General Assembly,[57] and are already supported by 130 banks from 49 countries, together representing more than US$47 trillion in assets. Being a PRB signatory is likely to become a licence to operate in the banking industry, as has been the case with the Principles for Responsible Investment for the investment industry.

Signatories to the PRB are expected to move beyond the traditional management of E&S risks, by setting targets to mitigate the negative and maximize the positive E&S impacts associated with their business activities, in line with the UN SDGs and the objectives of the Paris Agreement. Signatories are expected to engage with their clients and stakeholders to promote sustainable business practices, and to enhance their transparency and disclosure practices.



INVESTOR EXPECTATIONS ON SUSTAINABILITY AND TRANSPARENCY ARE GROWING

GROWING INVESTOR EXPECTATIONS WILL AFFECT SOUTHEAST ASIAN BANKS

New regulations issued in the European Union (EU) as part of the European Commission's Sustainable Finance Action Plan implementation[58] require EU-based institutional investors to disclose how they integrate E&S risks into their investment processes, as well as the financial impacts of the E&S risks they face and the E&S impacts associated with their investments.[59] This will lead to increasing expectations from such investors regarding the sustainability performance and transparency of the listed corporates and banks they invest in, including in Southeast Asia.

Globally, investors are increasingly pushing both companies in their portfolios and governments to improve disclosure of climate-related information. Under the Global Investor Statement to Governments on Climate Change, a group of 515 investors representing US$35 trillion AUM are calling for governments to (i) achieve the Paris Agreement's goals (ii) accelerate private sector investment into the low-carbon transition, and (iii) commit to improve climate-related financial reporting and publicly support the adoption of the TCFD recommendations.[60]

As of June 2019, 374 banks, asset managers, pension funds and insurers, controlling around US$120 trillion of assets, publicly support the TCFD. For example, Japan's GPIF, the world's largest pension fund, announced its support for the TCFD recommendations in December 2018.

In ASEAN, although only three banks and two asset managers currently support the TCFD,[61] the changing regulatory landscapes and increasing investor expectations can make disclosure against the TCFD recommendations become the norm.

In September 2019, a group of institutional investors convened by PRI and UNEP FI launched the Net-Zero Asset Owner Alliance with WWF as a strategic partner. These asset owners are committed to "*transitioning their investment portfolios to net-zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre-industrial temperatures*".[62] The growing group of investors includes large players such as Allianz, Aviva, AXA, Calpers, Swiss Re and Zurich and represents nearly US$4 trillion AUM. Another group of around 50 leading financial institutions, including banks, asset managers and asset owners, have publicly committed to setting science-based targets, to align their investment portfolios with the ambition of the Paris Agreement. A specific methodology is currently being road-tested, and expected to be launched in 2020.[63]

As banks in ASEAN depend on international capital markets to fund themselves, they will experience greater scrutiny by investors. To remain attractive, banks should strengthen their sustainability disclosures, robustness of E&S risk management frameworks, as well as the resilience of their loan portfolios to climate and natural capital risks.

IMPROVING DISCLOSURE ON NATURE-RELATED RISKS

Looking beyond climate, there have been increasing calls for a collaboration between the public and private sectors to develop a TCFD-like disclosure framework for financial institutions to better manage nature and biodiversity risks. WWF has been at the forefront of this effort, for instance through the publication of a study co-authored with AXA and presented to the G7 environment ministers in France in May 2019.[64] A number of recommendations were made, including for the creation of a Task Force on Nature Impacts Disclosures and the development of a framework for investors to analyse biodiversity risks and engage with the companies in which they invest.

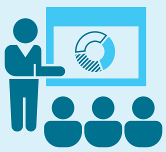
Some policymakers are already taking concrete steps in this direction. In France, under Article 173 of the law on Energy Transition and Green Growth entered into force in July 2017, asset managers and institutional investors are required to disclose information on the management of climate-related physical and transition risks. In September 2019, the law was amended to include disclosure of similar information on biodiversity-related risks.

ASSESSMENT FRAMEWORK – SCOPE AND METHODOLOGY

As part of its sustainable finance work with financial institutions and regulators in ASEAN, WWF has developed a framework to assess sustainable banking regulations and guidelines.

The framework expands on a first succinct assessment that was performed as part of the 2017 Sustainable Banking in ASEAN report.[65] The framework reflects WWF's insights on what constitutes a robust foundation of regulatory practices, that regulators can build upon to ensure that the ASEAN banking sector is resilient in light of the climate and environmental crisis, and is aligned to support the achievement of the Paris Agreement objectives and UN Sustainable Development Goals. It provides a basis for constructive dialogue, engagement and capacity-building with financial regulators and banking associations, with the goal to strengthen and harmonize regulatory and banking practices across ASEAN. The framework is built on six pillars and 25 indicators, described below.

PILLARS	
	**PILLAR 1 – SCOPE** The scope of regulations and guidelines should cover all commercial banks authorized to operate in the country, regardless of where they are headquartered. In addition to wholesale lending, the scope should include capital markets and advisory services, and cover the main E&S issues impacting the region. Ideally, the financial regulator or banking association will have issued sector-specific guidance, focusing on environmentally or socially sensitive sectors.
	**PILLAR 2 – STRATEGY & GOVERNANCE** The regulations or guidelines should lay out their expectations for banks to factor in sustainability when defining their business strategy and governance practices. To ensure a successful implementation of the banks' sustainability strategy, having board oversight is critical, as well as dedicating staff, attributing clear roles and responsibilities across the organization, and having training programmes in place (incl. for senior management).
	**PILLAR 3 – POLICIES & PROCESSES** The third pillar covers expectations for banks to have policies and processes in place, to ensure a proper integration of E&S considerations in decision-making and risk management processes (with three lines of defence mobilized). E&S policies should cover at least the most environmentally or socially sensitive issues and sectors and include minimum requirements going beyond applicable laws and regulations. Banks should be encouraged to engage and support their clients on the adoption of good sustainability practices.
	**PILLAR 4 – PORTFOLIO RISKS & IMPACTS** At the portfolio level, the regulations or guidelines should expect banks to assess and manage their E&S impacts as well as their exposure to E&S risks, including climate-related risks. This can be done using forward-looking scenario analysis, for both physical and transition risks. The assessment also looks at whether the financial regulator performs (or plans to perform) stress-testing to assess the exposure of banks under its supervision to climate-related risks as well as the impacts of such risks on financial stability.

	**PILLAR 5 – DISCLOSURE & TRANSPARENCY** To improve disclosure and transparency practices, the regulations or guidelines should require banks to publicly disclose their sustainability strategy and to regularly report on its implementation, in addition to reporting to the regulator. Stakeholder engagement, including with civil society, is important to inform the development and update of the sustainability strategy. Banks should also be expected to report publicly on climate-related risks and opportunities, in line with the TCFD recommendations.
	**PILLAR 6 – ENABLING ENVIRONMENT** Last but not least, creating an enabling environment is critical for the development of sustainable finance, for instance by having standards and incentives in place for sustainable financial products (e.g. green bonds/loans) and by building the capacity of the banking industry. The assessment also looks at whether the national central bank or financial supervisor is part of the Network for Greening the Financial System (NGFS).

The assessments are based on publicly available information, in English or in other national languages. Before publication of this report, best efforts have been made to discuss preliminary results with the national financial regulators and/or banking associations (as appropriate), and the feedback received has been taken into account.

The assessment covers five ASEAN countries (namely Indonesia, Malaysia, Singapore, Thailand and Vietnam) as well as China. The other five ASEAN countries have not been included in the report, for the following reasons:

- In the Philippines, the BSP regulatory framework for sustainable finance has not been published at the time of finalizing this report. The key components of the framework have been highlighted in a recent speech by the BSP governor.[66]
- The Cambodian Sustainable Finance Principles[67] have not been assessed, as we focused our work on countries with publicly listed banks.
- In Brunei, Laos and Myanmar, no regulations or guidelines pertaining to sustainable banking have been issued by the financial regulators or banking associations.

For Singapore, the assessment is based on the ABS Responsible Lending Guidelines as well as the recent announcements made by MAS, as the detailed environmental risk management guidelines are only planned to be published early 2020 for consultation.[68]

The report also features an assessment of the Chinese regulations pertaining to sustainable banking,[69] as these currently provide the most robust regulatory guidance across Asia and can provide useful reference points for ASEAN regulators. Chinese banks are also playing an important role in supporting the overseas activities of Chinese companies, from infrastructure projects[70] to soft commodities and manufactured goods production and imports, globally and across ASEAN.

The next section provides the results of the assessment of the various regulations and guidelines in place against our framework.

ASSESSMENT FRAMEWORK – OVERALL RESULTS

KEY: ✓ Fulfilled — Partially fulfilled — Not fulfilled

		Indonesia	Malaysia	Singapore	Thailand	Vietnam	China
1. SCOPE							
1.a	The regulations/guidelines are applicable to all commercial banks with a valid banking license, and involved in wholesale and investment banking activities.	Fulfilled		Fulfilled	Fulfilled	Fulfilled	Fulfilled
1.b	The regulations/guidelines explicitly extend beyond lending to cover other financial products & services (e.g. capital markets, advisory transactions).						
1.c	The regulation/guidelines specifies which E&S issues should be covered, such as: ■ **Environmental issues:** greenhouse gas emissions, deforestation, land use change, biodiversity loss, pollution of water, air and soil, depletion of natural resources. ■ **Social issues:** human rights violations, occupational health & safety risks, adverse impacts on local communities (incl. indigenous people) and cultural heritage.	Partially fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
1.d	The financial regulator or banking association has issued sector-specific environmental and social guidelines or checklists (at least for high-risk sectors) covering the banks' activities in such sectors.	Partially fulfilled	Partially fulfilled	Partially fulfilled		Fulfilled	
2. STRATEGY & GOVERNANCE							
2.a	Banks are expected to define, implement and regularly review an overarching sustainability strategy, supported by specific targets and indicators.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
2.b	Banks are expected to include oversight of their sustainability strategy implementation in the responsibilities of the board.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
2.c	Banks are expected to dedicate staff and resources to the definition, implementation, and update of their sustainability strategy.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
2.d	Banks are expected to define the roles and responsibilities of the various teams (incl. senior management) involved in the implementation of the sustainability strategy.	Fulfilled	Partially fulfilled	Fulfilled	Fulfilled	Partially fulfilled	Fulfilled
2.e	Banks are expected to conduct training on relevant sustainability issues for their senior management, business lines and functions.	Fulfilled	Partially fulfilled	Partially fulfilled	Fulfilled	Partially fulfilled	Fulfilled
3. POLICIES & PROCESSES							
3.a	Banks are expected to develop and implement issue-specific or sector-specific E&S policies, which include minimum E&S requirements going beyond applicable laws and regulations, focusing at least on high-risk E&S issues and sectors.		Fulfilled	Partially fulfilled	Fulfilled	Partially fulfilled	Partially fulfilled
3.b	Banks are expected to engage with and support their clients on the adoption of good sustainability practices.	Fulfilled	Fulfilled	Partially fulfilled	Fulfilled	Fulfilled	Partially fulfilled
3.c	Banks are expected to integrate E&S considerations in decision-making and risk management processes.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
3.d	Banks are expected to put in place an internal control system with three lines of defence covering the implementation of E&S policies.		Fulfilled	Fulfilled		Fulfilled	Fulfilled

ASSESSMENT FRAMEWORK - OVERALL RESULTS

KEY: ✔ Fulfilled · Partially fulfilled · Not fulfilled

		Indonesia	Malaysia	Singapore	Thailand	Vietnam	China
4. PORTFOLIO RISKS & IMPACTS							
4.a	Banks are expected to assess and mitigate their portfolio-level exposure to material E&S risks (incl. climate-related physical and transition risks, through the use of forward-looking scenario analysis).		Fulfilled	Partially fulfilled	Partially fulfilled		Fulfilled
4.b	Banks are expected to assess and mitigate the significant potential negative E&S impacts resulting from their provision of financial products and services, at the portfolio level.					Partially fulfilled	
4.c	The financial regulator/supervisor performs stress-testing to assess the banks' exposure to climate-related physical and transition risks as well as the impacts of such risks on financial stability, based on forward-looking scenario analysis, and discloses the results and methodology used.						
5. DISCLOSURE & TRANSPARENCY							
5.a	Banks are expected to publicly disclose their sustainability strategy and to regularly report on its implementation.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Partially fulfilled	Fulfilled
5.b	Banks are expected to report to the financial supervisor on their implementation of the regulations/guidelines.	Fulfilled	Fulfilled			Fulfilled	Fulfilled
5.c	Banks are expected to publicly disclose the share of loans provided to activities with positive E&S impacts in their lending portfolio.	Fulfilled				Partially fulfilled	Partially fulfilled
5.d	Banks are expected to perform stakeholder mapping and to conduct stakeholder engagement on relevant E&S issues (incl. with civil society representatives).	Partially fulfilled	Fulfilled	Partially fulfilled	Fulfilled		Fulfilled
5.e	Banks are expected to report publicly on climate-related risks and opportunities, in line with TCFD recommendations.		Partially fulfilled				
6. ENABLING ENVIRONMENT							
6.a	Standards defining sustainable financial products (e.g. green bonds, green loans) are in place.	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
6.b	There are incentive mechanisms in place to encourage banks to provide sustainable financial products and/or to undertake firm-wide analysis of exposure to E&S risks.	Partially fulfilled	Partially fulfilled	Fulfilled		Partially fulfilled	Fulfilled
6.c	The financial regulator or banking association is supporting capacity-building for the banking industry, e.g. by facilitating workshops, creating or supporting specific tools or learning modules.	Fulfilled	Partially fulfilled	Fulfilled	Fulfilled	Fulfilled	Fulfilled
6.d	The national central bank or financial supervisor is part of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).	Fulfilled	Fulfilled	Fulfilled	Fulfilled		Fulfilled

COUNTRY SNAPSHOT: CHINA

Over the past decade, China has taken significant steps to develop a green financial system, recognizing the crucial role that finance has to play in supporting the country's objective to build an 'ecological civilization', enshrined in the country's constitution in 2012.

REGULATORY DEVELOPMENTS

The China Banking Regulatory Commission (CBRC) launched the Green Credit Guidelines in 2012, which regulate green credit and E&S risk management practices for the banking sector.[71] These were complemented in 2014 by a detailed set of key performance indicators (KPIs).[72]

In 2014, the People's Bank of China (PBOC) and UNEP launched a multi-stakeholder and international task force, which proposed specific recommendations to establish China's green financial system, by stimulating green investments and curbing investment in polluting industries. Subsequently, a number of guidelines were issued by regulatory authorities on green bonds issuance (by corporates and financial institutions) based on classifications of economic activities with positive environmental impacts (or taxonomies of 'green activities'), which led to significant growth in the Chinese green bonds market.

Another landmark development was the issuance of the Guidelines for Establishing the Green Financial System[73] by the PBOC, various ministries and financial regulators in 2016. The Guidelines detail a roadmap to develop green lending, enhance the role of capital markets in supporting green investment, and promote international cooperation, among other objectives.

That same year, China hosted the G20 summit and placed green finance on the agenda. Heads of states jointly recognized the necessity to scale up green financing and welcomed proposals put forward by the G20 Green Finance Study Group that was co-chaired by the Bank of England and the PBOC.[74] Both central banks are founding members of the NGFS.[75]

REGULATORY EXPECTATIONS AND INDUSTRY INITIATIVES

At this stage, there are no sanctions for banks that fail to meet the expectations set out in the Green Credit Guidelines and associated KPIs. The 21 largest Chinese banks are required to perform detailed annual self-assessments of their level of compliance and submit the results to the CBRC, while this is only voluntary for other banks. The China Banking Association is also involved in reviewing the self-assessment reports. While banks are not required to publicly disclose the results of their self-assessment, a ranking of the 21 banks is expected to be released publicly.

The PBOC has recently taken a number of measures incentivizing banks to provide more green financial products, notably by expanding the scope of its Medium Term Lending Facilitation (MLF) programme to include green bonds and green loans as eligible collateral. The PBOC also evaluates the banks' green credit performance in its macro-prudential assessment (MPA).[76] This is currently based on the amount of green loans/bonds provided, and is likely to further accelerate the development of green finance in China. At the provincial level, several pilot programmes have been launched since 2017 to test specific measures related to green finance.[77]

In light of increasing regulatory and investor expectations, UK and China launched a Pilot on Climate and Environmental Information Disclosure in 2017, comprising UK and Chinese financial institutions and representatives from Bank of England and the PBOC. A progress report was issued in December 2018.[78] The purpose is to raise awareness and build capacity of financial institutions on the assessment, mitigation and reporting of financial risks related to climate and environmental issues, with the ultimate goal of enhancing the resilience of the financial system.

COUNTRY CHAPTERS

Since 2017, WWF has assessed and reported on the E&S integration performance of 35 banks across six ASEAN countries (namely Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam), through the Sustainable Banking (SUSBA) online platform and associated reports.[79] This assessment is performed annually based on publicly available, English-language disclosures only.

The table below provides the list of the 29 banks assessed in the five countries covered in this report.

1 INDONESIA	2 MALAYSIA	3 SINGAPORE	4 THAILAND	5 VIETNAM
8 banks	6 banks	3 banks	7 banks	5 banks
Bank Central Asia Tbk (BCA) Bank Mandiri (Persero) Tbk (Mandiri) Bank Muamalat Indonesia Tbk (Muamalat) Bank Negara Indonesia Tbk (BNI) Bank Panin Tbk (Panin) Bank Pembangunan Daerah Jawa Barat dan Banten Tbk (Bank BJB) Bank Permata Tbk (Permata) Bank Rakyat Indonesia Tbk (BRI)	AMMB Holdings Bhd (Ambank) CIMB Group Holdings Bhd (CIMB) Hong Leong Bank Bhd (Hong Leong) Malayan Banking Bhd (Maybank) Public Bank Bhd (Public Bank) RHB Bank Bhd (RHB)	DBS Group Holdings Ltd (DBS) Oversea-Chinese Banking Corporation Ltd (OCBC) United Overseas Bank Ltd (UOB)	Bangkok Bank (BBL) Bank of Ayudhya (Krungsri) Kasikorn Bank (KBank) Krung Thai Bank (KTB) Siam Commercial Bank (SCB) Thanachart Bank (TBank) TMB Bank (TMB)	Bank for Investment and Development of Vietnam (BIDV) Joint Stock Commercial Bank for Foreign Trade of Vietnam (VCB) Vietnam Joint Stock Commercial Bank for Industry and Trade (VietinBank) Vietnam Export-Import Commercial Joint Stock Bank (Eximbank) Vietnam Prosperity Bank (VPBank)

The following country chapters provide high-level information on the sustainable banking regulatory landscape in each of the five countries covered, and assess the banks' level of alignment with the expectations set by the financial regulator or banking association.

KEY:

- # **Exceed expectations** – # of banks whose policies/practices exceed applicable regulations or guidelines
- # **Meet expectations** – # of banks whose policies/practices are in line with applicable regulations or guidelines
- # **No expectations** – # of banks not disclosing information, on a specific topic not covered by the applicable regulations or guidelines
- # **Not yet compliant** – # of banks whose policies/practices are not yet in line with applicable regulations or guidelines

INDONESIA

KEY:
- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

The financial supervisor (OJK) issued the *Regulation No.51/POJK.03/2017 on Application of Sustainable Finance to Financial Services Institutions, Issuers and Publicly Listed Companies* (POJK51) in July 2017. The *Technical Guidelines for Banks on the Implementation of POJK51,* issued in November 2018, provide additional information and guidance for banks. For large Indonesian commercial banks and foreign banks, POJK51 entered into force on January 1st, 2019. Banks have to submit their first Sustainable Finance Action Plans by November 2019, and the first Sustainability Reports will be published in 2020, covering the 2019 reporting period. We expect to start seeing the effects of this new set of regulations on the banks' ESG integration performance in our 2020 SUSBA assessment.

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
SCOPE	POJK51 does not explicitly mention that financial products & services beyond lending (i.e. capital markets, advisory transactions) should be covered.	1 of 8 banks publicly states that its E&S requirements apply beyond lending.	No expectations: 7; Exceed expectations: 1
	E&S issues covered include: climate change, environmental degradation, biodiversity loss, reduction of social inequalities. However, human rights or labour issues are not covered.	3 of the 8 banks recognize risks related to both climate change and deforestation / biodiversity loss, 2 of which also recognize risks related to both human rights and labour issues.	Not yet compliant: 5; Meet expectations: 1; Exceed expectations: 2
STRATEGY & GOVERNANCE	POJK51 requires banks to prepare a Sustainable Finance Action Plan (sustainability strategy) to be prepared by the Board of Directors, approved by the Board of Commissioners and submitted to the regulator.	7 of the 8 banks have incorporated sustainability in their overall strategy with clear commitment from top management, 5 of which have assigned responsibility of sustainability strategy implementation to senior management and/or the board of directors.	Not yet compliant: 3; Meet expectations: 5
	Sustainable Finance Action Plan: detailed document specifying the actions to be undertaken during the next 5 years, resources allocated and roles and responsibilities attributed.	4 of the 8 banks have assigned roles and responsibility to the various relevant teams, of which 2 disclose having a team dedicated to the definition and implementation of their sustainability strategy.	Not yet compliant: 6; Meet expectations: 2
	POJK51 / Technical Guidelines: emphasis put on the importance of training staff, particularly senior management and the teams involved in the sustainability strategy implementation.	While 7 of the 8 banks report providing sustainability training to their employees, 2 banks declare providing such training to their senior management.	Not yet compliant: 6; Meet expectations: 2

INDONESIA

KEY:

- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
POLICIES & PROCESSES	■ POJK51 does not require banks to develop and publish E&S policies on sensitive issues or sectors. ■ OJK has published specific guidance for financial institutions on the palm oil sector in December 2016.	■ 5 of the 8 banks have published sector policies (usually limited to the palm oil sector). 1 bank declares that further policies will be developed in the coming years. 4 of the 8 banks have disclosed high level exclusionary principles based on E&S considerations. ■ 4 of the 8 banks refer to the Roundtable on Sustainable Palm Oil (RSPO) in their policies, 3 of which require their clients to obtain RSPO certification.	3 4 1
	■ POJK51 requires sustainable finance principles to become part of risk management processes.	■ 6 of the 8 banks report taking the results of E&S risk assessments into account as part of their client approval processes.	2 6
	■ POJK51 does not require banks to put in place three lines of defence to manage E&S risks.	■ 3 of the 8 banks disclose having put in place three lines of defence to manage E&S risks.	5 3
PORTFOLIO RISKS & IMPACTS	■ POJK51: no expectation for banks to assess and manage their portfolio-level exposure to specific E&S risks, such as climate-related risks. Technical Guidelines: mention that ESG considerations may be integrated into *"corporate risk portfolios"* during the advanced implementation stage, starting on January 1st 2020 for large commercial banks.	■ None of the banks are disclosing taking actions to assess and manage their portfolio-level exposure to specific E&S risks, and none of them disclose having a strategy in place to mitigate climate-related risks across their portfolio.	8
DISCLOSURE & TRANSPARENCY	■ POJK51: banks are expected to publicly disclose their sustainability strategy and to report annually on its implementation, following a detailed structure laid out in POJK51 and the Technical Guidelines.	■ All 8 banks disclose some information about their sustainability strategy and vision. 1 of them discloses statistics on the implementation of its E&S policies (e.g. transactions assessed/escalated/approved with conditions).	7 1
	■ POJK51 / Technical Guidelines: banks are required to report – publicly and to OJK – on lending provided to Sustainable Business Activities,[80] and the share of their total portfolio it represents.	■ None of the banks disclose allocating capital to specifically support activities with positive E&S impacts. 3 of the 8 banks report providing green or sustainable financial products to their clients.	5 3
	■ Banks are expected to conduct stakeholder engagement on relevant E&S issues, but there is no mention of civil society in the stakeholders list.	■ 6 of the 8 banks disclose working with civil society representatives or NGOs to understand the E&S risks associated with their business activities.	2 6
	■ Banks are not required to disclose in line with the TCFD recommendations.	■ Based on our SUSBA analysis, the 8 Indonesian banks fulfil on average slightly more than one-tenth of the TCFD-related criteria.	8
ENABLING ENVIRONMENT	■ Incentives provided by OJK: free training and capacity-building programmes, awards for the best-performing banks. Additional measures are being developed to ensure proper implementation of POJK51 and increase financial support provided to sustainable business activities. ■ In May 2018, the Indonesia Sustainable Finance Initiative (IKBI) was launched by 8 of the largest Indonesian banks and WWF-Indonesia to promote responsible banking practices.[81] The platform is endorsed by OJK. To date, 5 additional banks have joined IKBI. ■ Bank Indonesia joined the Network for Greening the Financial System (NGFS) in November 2019.		

MALAYSIA

KEY:
- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

In March 2018, the central bank and financial supervisor (Bank Negara Malaysia, or BNM) issued its *Strategy Paper on Value-Based Intermediation (VBI)*, intended to serve as guidance of Islamic financial institutions (IFIs) to *"generate positive and sustainable impact to the economy, community and environment, consistent with the shareholders' sustainable returns and long-term interests"*. On November 1st 2019, following a public consultation phase, BNM issued the *VBI Financing and Investment Impact Assessment Framework - Guidance Document (VBIAF)*, to which WWF has provided input. The VBIAF provides guidance to IFIs as well as to *"other financial institutions intending to incorporate environmental, social and governance (ESG) risk considerations in their own risk management system"*.

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
SCOPE	VBI only formally applies to Islamic financial institutions, although BNM mentions that the VBI Assessment Framework can serves as guidance to other financial institutions.	All 6 banks are integrating E&S considerations in both their Islamic and commercial banking activities (to varying degrees).	6
	Banks are given the choice to apply VBI to all or a portion of their banking activities, and to all existing or new transactions only.	2 of the 6 banks publicly state that their E&S requirements apply beyond lending (e.g. also to capital markets, advisory transactions).	4 2
	VBIAF provides a comprehensive list of E&S issues to be covered by banks when developing their sustainability strategy and policies, recognizing that the banks' *"customers' businesses, if not run properly, can be the source of negative impacts"*.	3 of the 6 banks recognize risks associated with climate change, of which 1 bank also recognizes other E&S risks (deforestation / biodiversity loss, water, as well as human rights and labour issues).	5 1
STRATEGY & GOVERNANCE	VBIAF: banks should develop their Corporate Value Intent, which formulates their commitments under VBI and forms the basis for policies and processes deployed group-wide. Under the Corporate Governance Code, the Board must promote ESG integration in the banks' business strategy.	All 6 banks have incorporated sustainability in their overall strategy, and have attributed responsibilities over the sustainability strategy implementation to their board and/or senior management.	6
	VBIAF: banks are expected to have a dedicated *"VBI implementation team"*, and to attribute responsibilities across all relevant functions. Senior management is not explicitly mentioned.	4 of the 6 banks have assigned roles and responsibility to the various relevant teams, 3 of which disclose having a dedicated sustainability team.	3 3
	VBIAF: banks are expected to train staff. Training senior management is not explicitly mentioned, although banks should consider building capacity of board members on sustainability.	3 of the 6 banks report providing sustainability training to their employees, 2 of which cover senior management.	3 1 2

MALAYSIA

KEY:

- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
POLICIES & PROCESSES	■ VBIAF: banks are expected to issue sector- and issue-specific policies that outline the banks' requirements, and *"where possible reference international standards, best practice frameworks and robust multi-stakeholder certification systems".*	■ While 2 of the 6 banks mention having sector policies in place, none have published the actual policies. These 2 banks report having exclusionary principles based on E&S considerations, e.g. to prohibit financing activities that adversely affect UNESCO World Heritage Sites. None of the banks refer to internationally recognized sustainability standards.	Not yet compliant: 4; Meet expectations: 2
	■ VBIAF: the VBI principles should be *"internalised throughout the institution"* and *"all decision-making processes".*	■ None of the banks report taking the results of E&S risk assessments into account as part of their client approval processes.	Not yet compliant: 6
	■ VBIAF: banks are expected to attribute responsibilities *"across all relevant functions (including the three lines of defence i.e. risk management, compliance and audit)".*	■ 1 of the 6 banks mentions having put in place three lines of defence to manage E&S risks.	Not yet compliant: 5; Meet expectations: 1
PORTFOLIO RISKS & IMPACTS	■ VBIAF: banks *"should monitor [their] portfolio level exposure to key cross cutting risks e.g. deforestation, exploitation, climate risk, water risk", and "should consider setting portfolio level targets in the context of national/ local targets and/or international standards".* Aligning portfolio with climate-related science-based targets is provided as an example. ■ BNM is currently developing a principles-based taxonomy to enable financial institutions to classify green assets consistently.[82]	■ None of the banks are disclosing actions to assess their portfolio-level exposure to climate-related or other E&S risks, or to mitigate climate-related risks across their portfolio.	Not yet compliant: 6
DISCLOSURE & TRANSPARENCY	■ VBIAF: banks are expected to publicly disclose their VBI implementation strategy, including information on policies and processes, portfolio-level E&S risk management, information on transactions assessed/escalated/approved with conditions, etc. International disclosure frameworks such as GRI and SASB are mentioned.	■ All 6 banks disclose some information about their sustainability strategy and vision (to varying degrees). None of the banks disclose statistics on the implementation of its E&S policies (e.g. transactions assessed/escalated/ approved with conditions).	Not yet compliant: 6
	■ Banks are not expected to report on the share of loans provided to projects with positive E&S impacts in their lending portfolio.	■ 3 of the 6 banks report providing green or sustainable financial products and services to their clients, with one bank disclosing allocating capital to specifically support activities with positive E&S impacts.	No expectations: 3; Exceed expectations: 3
	■ VBIAF: banks are expected to perform stakeholder mapping and engagement, incl. with civil society, local communities, NGOs and technical experts.	■ 3 of the 6 banks disclose working with civil society representatives or NGOs to understand the E&S risks associated with their business activities.	Not yet compliant: 3; Meet expectations: 3

MALAYSIA

KEY:

# Exceed expectations	# No expectations
# Meet expectations	# Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
DISCLOSURE & TRANSPARENCY	■ VBIAF: banks are not required to disclose in line with the TCFD recommendations. However, the TCFD is mentioned as one of the reference frameworks that banks can use to prepare their reporting against VBI. Bursa Malaysia is a TCFD supporter.	■ Based on our SUSBA analysis, the 6 Malaysian banks fulfil on average slightly more than one-quarter of the TCFD-related criteria.	6
	■ BNM is planning to require financial institutions to report their exposures to climate risks based on the taxonomy being developed.[83]	■ None of the banks are currently reporting their exposures to climate risks.	6
ENABLING ENVIRONMENT	■ A grant scheme to cover costs associated with the issuance of green Sukuk (Islamic bonds) is in place. ■ BNM joined the Network for Greening the Financial System (NGFS) in October 2018, and recently established the Joint Committee on Climate Change with Securities Commission Malaysia, to pursue *"collaborative actions for building climate resilience in the Malaysian financial sector"*,[84] which include capacity-building activities.		

SINGAPORE

KEY:

# Exceed expectations	# No expectations
# Meet expectations	# Not yet compliant

The Association of Banks in Singapore (ABS) has played a key role in supporting the integration of ESG considerations in the Singapore financial sector. The *ABS Guidelines on Responsible Financing* were developed in consultation with banks and issued in October 2015, and subsequently revised in June 2018 (changes were made to reflect the sustainability reporting requirements for listed companies in Singapore, but the guidelines themselves remained largely similar). It should be noted that the Monetary Authority of Singapore (MAS) is developing Environmental Risk Management Guidelines, which will cover the banking, insurance, and asset management sectors, and set standards on governance, risk management, and disclosure. MAS plans to release the guidelines for public consultation early 2020.

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
SCOPE	ABS Guidelines: do not specify that financial products & services beyond lending are covered.	All 3 banks are applying their E&S requirements beyond lending (i.e. to also cover capital markets, advisory transactions).	3 (Exceed expectations)
	ABS Guidelines: detail a wide range of E&S issues that should be covered by the banks' responsible financing policies (climate change, deforestation, biodiversity, water, labour and human rights).	All 3 banks recognize the materiality of such risks in their business activities.	3 (Meet expectations)
STRATEGY & GOVERNANCE	ABS Guidelines: banks are expected to demonstrate a *"commitment to support and implement responsible financing"* from either the CEO or the chairman of the board.	All 3 banks have incorporated sustainability in their overall strategy, and have attributed responsibilities over the sustainability strategy implementation to their board and/or senior management.	3 (Meet expectations)
	ABS Guidelines: Banks are expected to *"allocate resources with clear roles and responsibilities to support the implementation of responsible financing"*.	All 3 banks disclose having a team dedicated to the definition and implementation of their sustainability strategy, as well as having assigned roles and responsibilities to the various relevant teams.	3 (Meet expectations)
	ABS Guidelines: Banks are expected to *"raise staff awareness and build management capacity on responsible financing by training staff and inculcating an "ESG" mind set"*, but training for senior management is not mentioned.	All 3 banks have training programmes in place including for their senior management.	3 (Exceed expectations)

SINGAPORE

KEY:

# Exceed expectations	# No expectations
# Meet expectations	# Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
POLICIES & PROCESSES	ABS Guidelines: banks are expected to develop *"responsible financing policies"* covering *"industries with elevated risk"* as a priority.[85] ABS released the Haze Diagnostic Toolkit in 2017, to help banks assess and monitor their clients' practices to minimise haze risk.	All 3 banks mention having E&S sector policies in place, of which 1 bank actually discloses such policies. All 3 banks mention using the Haze Diagnostic Toolkit.	3 (Meet expectations)
	No reference to minimum E&S requirements is made for responsible financing policies.	All 3 banks disclose their exclusionary principles and have prohibited financing of (i) new coal-fired power plants and (ii) activities that adversely affect UNESCO World Heritage Sites, among others. 2 of the 3 banks have commitments not to finance activities with adverse impacts on high conservation value forests. All 3 banks report the inclusion of international sustainability standards in their policies, such as the Roundtable on Sustainable Palm Oil (RSPO).	3 (Exceed expectations)
	ABS Guidelines: banks are expected to embed responsible financing practices in their internal policies and procedures.	All 3 banks have fully integrated E&S considerations in their risk management and decision-making processes, from early client approval to the monitoring of E&S performance.	3 (Meet expectations)
	MAS Risk Management Guidelines on Internal Controls: banks are required to have three lines of defence for risk management.[86] MAS further assesses the banks' risk management and controls across their three lines of defence.[87] Under the ABS Guidelines, banks are expected to integrate E&S risks in their internal processes.	2 of the 3 banks mention having put in place three lines of defence to manage E&S risks.	1 (Not yet compliant), 2 (Meet expectations)
PORTFOLIO RISKS & IMPACTS	ABS Guidelines: no particular expectations for banks to perform portfolio-level assessments of their exposure to E&S risks and impacts (incl. on climate-related risks). In November 2019, MAS publicly stated that *"banks, insurers, and asset managers will need to assess the impact of climate change on balance sheets and their loan and investment portfolios",*[88] sending a strong signal to the financial industry.	All 3 banks conduct some sort of portfolio-level review of exposure to sectors or transactions that carry E&S risks. 1 of the 3 banks has started to assess its exposure to climate-related risks, using carbon prices under various scenarios, and 2 of the 3 banks describe actions to reduce such exposure.	3 (Exceed expectations)

SINGAPORE

KEY:

#	Exceed expectations	#	No expectations
#	Meet expectations	#	Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
DISCLOSURE & TRANSPARENCY	ABS Guidelines: banks are expected to publish their responsible financing policy framework. SGX Listing Rules: requires every listed issuer to prepare an annual sustainability report.[89]	All 3 banks provide annual sustainability reports with information such as statistics on the implementation of E&S policies (e.g. number of transactions assessed or escalated).	3 (Meet expectations)
	Banks are not expected to report on the share of loans provided to projects with positive E&S impacts in their lending portfolio.	All 3 banks offer financial products and services associated with the improvement of E&S practices, with 1 bank disclosing allocating capital to specifically support activities with positive E&S impacts.	3 (Exceed expectations)
	ABS Guidelines: no expectation for banks to conduct stakeholder engagement on relevant E&S issues. However, ABS is working closely with NGOs to build member banks' capacity around sustainability and ESG integration. ABS is also an Advisory Group member for the ASFI.[90]	All 3 banks disclose working with civil society representatives or NGOs on sustainability and/or E&S integration topics.	3 (Exceed expectations)
	Although SGX is a TCFD supporter, as of now banks are not required to disclose in line with the TCFD recommendations.	Based on our SUSBA analysis, the 3 Singaporean banks fulfil on average more than two-thirds of the TCFD-related criteria, and all of them are official TCFD supporters.	3 (Exceed expectations)
ENABLING ENVIRONMENT	In November 2019, MAS expanded its green bonds grant scheme (launched in March 2017) to social and sustainability bonds. The scheme covers the additional costs incurred by issuers for the required external reviews. To build capacity among member banks, ABS has taken specific steps such as organizing workshops or co-developing an e-learning module on sustainable finance and E&S integration, in collaboration with WWF-Singapore. ABS is also actively contributing to regional workshops organized by the ASEAN Bankers Association along with partners such as WWF, to build capacity of the ASEAN banking sector around sustainable finance and E&S integration. MAS is one of the founding members of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).			

THAILAND

KEY:

- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

In August 2019, the Thai Bankers' Association and its member banks issued the *Sustainable Banking Guidelines - Responsible Lending* (TBA Guidelines), to which WWF has provided input. The central bank and financial supervisor (Bank of Thailand) has explicitly recognized the responsibility of the financial sector in driving sustainable development in Thailand, and supported the development of the TBA Guidelines.[91] We expect to start seeing the effects of these new guidelines on the banks' E&S integration performance in our 2020 SUSBA assessment.

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
SCOPE	The TBA Guidelines only apply to lending activities, and do not state that other financial products & services should be covered.	3 of the 7 banks explicitly apply their E&S requirements beyond lending (i.e. to also cover capital markets, advisory transactions).	4 / 3
SCOPE	A detailed list of E&S issues to be considered by banks is provided, incl. climate change, deforestation, biodiversity loss, water pollution, impacts on oceans, as well as labour and human rights.	6 of the 7 banks recognize climate change and environmental degradation issues as material. 4 of the 7 banks recognize deforestation, biodiversity loss and labour and human rights issues as material. None of the banks have specific commitments regarding water or ocean-related risks.	7
STRATEGY & GOVERNANCE	TBA Guidelines: serve as *"guidance for banks to establish a responsible lending strategy to manage their environmental and social (E&S) impacts and risks"*.	All 7 banks have included sustainability in their overall strategy, 4 of which showing support from their senior management.	7
STRATEGY & GOVERNANCE	Banks are expected to *"establish board of directors, CEO and senior management's commitment to implement the responsible lending strategy"*.	3 of the 7 banks disclose having attributed responsibility over the implementation of the responsible lending strategy to senior management and/or board of directors.	4 / 3
STRATEGY & GOVERNANCE	Banks are expected to dedicate resources and to clearly define the roles and responsibilities of relevant teams involved in the implementation of responsible lending policies.	3 of the 7 banks disclose the roles and responsibilities of teams involved in implementing policies, 2 of which have a team dedicated to the definition and implementation of their sustainability strategy.	5 / 2
STRATEGY & GOVERNANCE	Banks are expected to *"build capacity for both senior management and staff on ESG and sustainability matters"*.	3 of the 7 banks report providing sustainability training to their employees, 2 of which also provide training to their senior management.	5 / 2

THAILAND

KEY:

- Exceed expectations
- Meet expectations
- No expectations
- Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
POLICIES & PROCESSES	TBA Guidelines: banks are expected to develop *"robust lending policies that incorporate ESG criteria"*.	4 of the 7 banks mention having E&S sector policies in place, but 2 disclose the actual policies.	Not yet compliant: 3; Meet expectations: 4
POLICIES & PROCESSES	Banks' policies are expected to *"extend beyond legal compliance to reflect good environmental and social standards and frameworks"*.	None of the banks refer to internationally recognized sustainability standards in their sector policies, however 6 of the 7 banks have disclosed high-level exclusionary principles based on E&S considerations.	Not yet compliant: 7
POLICIES & PROCESSES	Banks are expected to *"engage with clients to proactively support them in reducing negative impacts and improving their sustainability performance"*.	None of the banks report proactively engaging with clients to support the improvement of their E&S performance.	Not yet compliant: 7
POLICIES & PROCESSES	Banks are expected to *"establish internal policies and processes to address key ESG risks in their lending activities"*.	3 of the 7 banks report taking the results of E&S risk assessments into account as part of their client approval processes.	Not yet compliant: 4; Meet expectations: 3
POLICIES & PROCESSES	TBA Guidelines: do not require banks to put in place three lines of defence to manage E&S risks.	None of the banks disclose having put in place three lines of defence to manage E&S risks.	No expectations: 7
PORTFOLIO RISKS & IMPACTS	TBA Guidelines: banks are expected to *"identify and seek to manage their lending portfolio exposure to ESG risks"*. No further details or methodological guidance are provided.	1 bank has disclosed reviewing its portfolio-level exposure to climate-related risks. None of the banks have disclosed a strategy in place to manage and mitigate such risks across their portfolio.	Not yet compliant: 6; Meet expectations: 1
DISCLOSURE & TRANSPARENCY	TBA Guidelines: banks are expected to disclose relevant statements and policies, as well as to regularly report on progress made in the implementation of the guidelines.	6 of the 7 banks disclose varying levels of information about their sustainability strategy, 1 of which publishes statistics on the implementation of its E&S policies (e.g. transactions assessed/ escalated/approved with conditions).	Not yet compliant: 6; Meet expectations: 1
DISCLOSURE & TRANSPARENCY	Banks are not expected to report on the share of loans provided to projects with positive E&S impacts in their lending portfolio.	5 of the 7 banks report providing green or sustainable financial products and services to their clients, 2 of which are also allocating capital to specifically support activities with positive E&S impacts.	No expectations: 2; Exceed expectations: 5
DISCLOSURE & TRANSPARENCY	Banks are expected to engage with stakeholders beyond regulators, shareholders and clients to understand the ESG risks associated with their business activities, and with *"parties who may be directly and indirectly affected by activities that banks finance"*.	4 of the 7 banks disclose the type of stakeholders it engages with, 1 of which mentions engaging with civil society and NGOs.	Not yet compliant: 3; Meet expectations: 3; Exceed expectations: 1
DISCLOSURE & TRANSPARENCY	Banks are not required to disclose in line with the TCFD recommendations.	Based on our SUSBA analysis, the 7 Thai banks fulfil on average slightly less than one-third of the TCFD-related criteria.	No expectations: 7
ENABLING ENVIRONMENT	No incentive mechanisms are in place to encourage banks to provide sustainable financial to their clients. Bank of Thailand is a member of the Network for Greening the Financial System (NGFS), and is supporting banks in their sustainable finance journey, for instance through regular capacity-building programmes, dedicated conferences and workshops.		

VIETNAM

KEY:

- # Exceed expectations
- # Meet expectations
- # No expectations
- # Not yet compliant

In March 2015, the State Bank of Vietnam (SBV), acting as central bank and financial supervisor, issued the *Directive No.03/CT-NHNN on Promoting Green Credit Growth and Environmental & Social Risks Management in Credit Granting Activities* (Directive 03), which laid out the respective responsibilities of SBV and commercial banks to contribute to the country's 2014-2020 National Action Plan on Green Growth. This was followed in August 2018 by the *Decision No.1604/QD-NHNN Approving the Scheme on Developing Green Banks in Vietnam* (Decision 1604). This Decision significantly strengthens Directive 03, and sets time-bound targets for ESG integration by Vietnamese banks. We expect to start seeing the effects of this new set of regulations on the banks' ESG integration performance in our 2020 SUSBA assessment.

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
SCOPE	Directive 03: only applies to lending/ credit activities by banks, and does not state that other financial products & services should be covered.	None of the banks explicitly state that their E&S requirements apply beyond lending (i.e. to also cover capital markets, advisory transactions).	5
SCOPE	Directive 03 lists a wide range of E&S risks to be considered by banks (e.g. exploitation of natural resources, pollution, climate change, cultural heritage, community health and safety, labour, resettlement).	2 of the 5 banks recognize risks associated with climate change, 1 other bank recognizes risks related to deforestation/ biodiversity loss, and 2 of these banks also recognizes risks related to labour issues.	5
STRATEGY & GOVERNANCE	Directive 03: requires the banks' Chairman of the Board and General Director to be responsible for implementation of the Directive.	3 of the 5 banks have incorporated sustainability in their overall strategy, 1 of which has attributed responsibilities over sustainability strategy implementation to its senior management (as well as to its board).	4 | 1
STRATEGY & GOVERNANCE	Decision 1604: banks should *"establish the unit/division responsible for the implementation of the E&S risk management system"*, and *"allocate and use resources"* for its implementation. The role of senior management is not mentioned. By 2025, at least 10-12 banks will need to *"have a specialized unit/ department for E&S risk management"*.	None of the banks report having assigned roles and responsibilities to the various relevant teams, and none of them disclose having a dedicated sustainability team.	5
STRATEGY & GOVERNANCE	Decision 1604: banks are expected to develop *"institutional capacity-building programmes on E&S risk management"* and sustainability for their employees, but training senior management is not mentioned.	2 of the 5 banks report providing sustainability training to their employees, but none of them mention training for senior management.	3 | 2

VIETNAM

KEY:

- Exceed expectations
- Meet expectations
- No expectations
- Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
POLICIES & PROCESSES	Decision 1604: banks are expected to develop lending policies for environmentally sensitive sectors *("such as agriculture, leather products, renewable energy and textiles")*. No reference to minimum E&S requirements is made. In 2018, SBV and the IFC issued E&S risk management checklists covering 10 industry sectors.[92]	None of the banks disclose having sector-specific policies in place. None of the banks refer to internationally recognized sustainability standards, however 2 of the 5 banks have disclosed high-level exclusionary principles based on E&S considerations.	5
	Decision 1604: banks are expected to develop a *"comprehensive E&S risk management system"*, backed by internal guidelines, resources and reporting processes. By 2025, all the banks will have to *"carry out E&S risk assessment in credit activities"*.	1 of the 5 banks discloses taking the results of E&S risk assessments into account as part of client approval and monitoring processes.	4 1
	Decision 1604: requires the *"integration of E&S risk assessments in guidance on internal audits"*, hinting at establishing three lines of defence for E&S risks management.	None of the banks mention having put in place three lines of defence to manage E&S risks.	5
PORTFOLIO RISKS & IMPACTS	Directive 03, Decision 1604: no particular expectations for banks to perform portfolio-level assessments of their exposure to E&S risks and impacts (incl. on climate-related risks).	None of the banks disclose taking actions to assess their portfolio-level exposure to climate-related or other E&S risks, or to mitigate climate-related risks across their portfolio.	5
	Decision 1604: banks are expected to *"closely monitor and take measures to reduce lending to activities that harm the environment"*.	None of the banks disclose having targets to reduce the negative E&S impacts associated with their business activities.	5

VIETNAM

KEY:

#	Exceed expectations	#	No expectations
#	Meet expectations	#	Not yet compliant

PILLAR	REGULATORY EXPECTATIONS	BANKS' PERFORMANCE	ALIGNMENT
DISCLOSURE & TRANSPARENCY	■ Directive 03: banks are expected to "*actively communicate E&S risks management and green credit policies*". Banks are also expected to regularly report to SBV on loans declined/ approved after E&S risks assessment, as well as on the outstanding value of loans having been subject to E&S review.	■ Vietnamese banks in general have limited public disclosure on their sustainability strategy and commitments. None of the banks disclose their sector-specific E&S policies, or statistics on their implementation (e.g. transactions assessed/escalated/approved with conditions).	5
	■ Directive 03: banks are required to report to SBV on green loans granted every quarter, their total outstanding value and the share of total loans it represents.	■ 1 of the 5 banks reports providing financial products and services linked to the improvement of its clients' E&S practices. None of the banks disclose allocating capital to specifically support activities with positive E&S impacts.	4 | 1
	■ Banks are not expected to conduct stakeholder engagement on relevant E&S issues (incl. with civil society representatives).	■ 2 of the 5 banks disclose engaging with civil society representatives or NGOs to understand the E&S risks associated with their business activities.	3 | 2
	■ Despite the Ho Chi Minh and Hanoi Stock Exchanges being TCFD supporters, banks are not required to disclose in line with the TCFD recommendations.	■ Based on our SUSBA analysis, the 5 Vietnamese banks fulfil on average slightly more than one-tenth of the TCFD-related criteria.	5
ENABLING ENVIRONMENT	■ Decision 1604: the banking sector has a responsibility to *"contribute positively to green growth and sustainable development"*. ■ In 2017, SBV introduced a Green Project Catalogue focusing on 6 specific sectors.[93] ■ Decision 1604: by 2025, at least 60% of banks will need to *"have access to green capital and deploy loans for green credit projects"*. SBV is currently working on additional incentives to accelerate the development of sustainable finance. SBV report a nearly 30% increase in outstanding loans granted to green projects between June 2019 and 2018. ■ Decisions 1552 & 1604: SBV is committed to build capacity of the banking sector on sustainable finance and E&S integration. Specific workshops are coordinated by the Vietnam Banks Association, involving various stakeholders including WWF.		

ABBREVIATIONS

ABS	Association of Banks in Singapore
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
AUM	Assets Under Management
BNM	Bank Negara Malaysia
BOT	Bank of Thailand
BSP	Bangko Sentral ng Pilipinas
CBIRC	China Banking and Insurance Regulatory Commission
DNB	De Nederlandsche Bank
E&S	Environmental & Social
ESG	Environmental, Social and Governance
GHG	Greenhouse Gas
IKBI	Initiatif Keuangan Berkelanjutan Indonesia (Indonesia Sustainable Finance Initiative)
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
MAS	Monetary Authority of Singapore
MSMEs	Micro, Small and Medium Enterprises
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
OJK	Otoritas Jasa Keuangan (Financial Services Authority of Indonesia)
PBOC	People's Bank of China
PRA	Prudential Regulation Authority
PRB	Principles for Responsible Banking
RSPO	Roundtable on Sustainable Palm Oil
SBV	State Bank of Vietnam
SDGs	Sustainable Development Goals
SGX	Singapore Exchange
SUSBA	Sustainable Banking Assessment
TBA	Thai Bankers' Association
TCFD	Task Force on Climate-related Financial Disclosures
UNEP FI	United Nations Environment Programme Finance Initiative
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
VNBA	Vietnam Banks' Association

ENDNOTES

1. Robert Costanza and others, Changes in the Global Value of Ecosystem Services, May 2014 <https://www.sciencedirect.com/science/article/abs/pii/S0959378014000685>.
2. Annual global GDP in 2011 was US$73.4 trillion <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.
3. Climate Action Tracker <https://climateactiontracker.org/global/temperatures>.
4. Intergovernmental Panel on Climate Change (IPCC), Global Warming of 1.5°C, an IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty, October 2018 <https://www.ipcc.ch/sr15>.
5. World Meteorological Organization, 'WMO Climate Statement: Past 4 Years Warmest on Record', 29 November 2018 <https://public.wmo.int/en/media/press-release/wmo-climate-statement-past-4-years-warmest-record>.
6. World Meteorological Organization, 'July Matched, and Maybe Broke, the Record for the Hottest Month since Analysis Began', 1 August 2019 <https://public.wmo.int/en/media/news/july-matched-and-maybe-broke-record-hottest-month-analysis-began>.
7. World Meteorological Organization, 'July Sees Extreme Weather with High Impacts', 1 August 2018 <https://public.wmo.int/en/media/news/july-sees-extreme-weather-high-impacts>.
8. WWF. 2018. Living Planet Report - 2018: Aiming Higher. Grooten, M. and Almond, R.E.A.(Eds). WWF, Gland, Switzerland <https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018>.
9. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Global Assessment Report on Biodiversity and Ecosystem Services, May 2019 <www.ipbes.net/news/Media-Release-Global-Assessment>.
10. Intergovernmental Panel on Climate Change (IPCC), Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems - Summary for Policymakers, 8 August 2019 <https://www.ipcc.ch/report/srccl>.
11. IPBES, op. cit.
12. Munich Re, 'Hurricanes Cause Record Losses in 2017 - The Year in Figures', 4 January 2018 <https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/natural-disasters/2017-year-in-figures.html>.
13. Munich Re, 'The Natural Disasters of 2018 in Figures', 8 January 2019 <https://www.munichre.com/topics-online/en/climate-change-and-natural-disasters/natural-disasters/the-natural-disasters-of-2018-in-figures.html>.
14. IPCC, October 2018, op. cit.
15. David Eckstein, Marie-Lena Hutfils, and Maik Winges, Global Climate Risk Index 2019, Who Suffers Most From Extreme Weather Events? Weather-Related Loss Events in 2017 and 1998 to 2017 (Germanwatch, December 2018).
16. '"Are We Doing Enough?" Speech by Frank Elderson at EIOPA 9th Annual Conference', 19 November 2019 <https://www.dnb.nl/binaries/are%20we%20doing%20enough_tcm46-386300.pdf>.
17. '"Unsustainable Business Is Un-Investable and Uninsurable Business" Thomas Buberl, CEO of Axa, Speech at One Planet Summit, Boulogne-Billancourt, France', 12 December 2017 <https://www-axa-com.cdn.axa-contento-118412.eu/www-axa-com%2Ff5520897-b5a6-40f3-90bd-d5b1bf7f271b_climatesummit_ceospeech_va.pdf>.
18. New York Times, 'As Wildfires Get Worse, Insurers Pull Back From Riskiest Areas', 20 August 2019 <https://www.nytimes.com/2019/08/20/climate/fire-insurance-renewal.html>.
19. Ben Caldecott, Matthew McCarten, and Charalampos Triantafyllidis, Carbon Lock-in Curves and Southeast Asia: Implications for the Paris Agreement (Oxford Sustainable Finance Programme, University of Oxford Smith School of Enterprise and the Environment, October 2018).
20. Unfriend Coal, Insuring Coal No More, The 2018 Scorecard on Insurance, Coal and Climate Change, December 2018 <https://unfriendcoal.com/>.
21. Chubb Ltd, 'Chubb Announces New Policy on Coal Underwriting and Investment', 1 July 2019 <http://news.chubb.com/2019-07-01-Chubb-Announces-New-Policy-on-Coal-Underwriting-and-Investment>.
22. CDP, 'World's Biggest Companies Face $1 Trillion in Climate Change Risks', 4 June 2019 <https://www.cdp.net/en/articles/media/worlds-biggest-companies-face-1-trillion-in-climate-change-risks>.
23. World Economic Forum, The Global Risks Report 2019, 14th Edition, 15 January 2019 <https://www.weforum.org/reports/the-global-risks-report-2019>.
24. Masahiko Haraguchi and Upmanu Lall, Flood Risks and Impacts: A Case Study of Thailand's Floods in 2011 and Research Questions for Supply Chain Decision Making (International Journal of Disaster Risk Reduction, 2014) <http://water.columbia.edu/files/2014/10/supply_chain_Thailand.pdf>.
25. Sustainable Banking Assessment (SUSBA), WWF, Asia Sustainable Finance Initiative <https://susba.org>.
26. UN Environment Programme, Emissions Gap Report 2019, 26 November 2019 <https://www.unenvironment.org/resources/emissions-gap-report-2019>.
27. IPCC, October 2018, op. cit.
28. Stockholm Resilience Centre, Potsdam Institute for Climate Impact Research, and Center for Macroecology, Evolution and Climate, University of Copenhagen, 'Planet at Risk of Heading towards "Hothouse Earth" State', August 2018 <https://www.pnas.org/content/115/33/8252>.
29. IPBES, op. cit.

ENDNOTES

30. Intergovernmental Panel on Climate Change (IPCC), Special Report on the Ocean and Cryosphere in a Changing Climate - Summary for Policymakers, September 2019 <https://www.ipcc.ch/srocc/home>.

31. Asia Development Bank, A Region at Risk: The Human Dimensions of Climate Change in Asia and the Pacific, July 2017 <https://www.adb.org/publications/region-at-risk-climate-change>.

32. Bob Buhr and Ulrich Volz, Climate Change and the Cost of Capital in Developing Countries: Assessing the Impact of Climate Risks on Sovereign Borrowing Costs (Imperial College Business School, SOAS University of London, July 2018) <http://imprl.biz/CostofCapital>.

33. Lloyd's, A World at Risk - Closing the Insurance Gap, 2018 <https://www.lloyds.com/~/media/files/news-and-insight/risk-insight/2018/underinsurance/lloyds_underinsurance-report_final.pdf>.

34. Asian Development Bank, Southeast Asia and the Economics of Global Climate Stabilization, 2015 <https://www.adb.org/sites/default/files/publication/178615/sea-economics-global-climate-stabilization.pdf>.

35. Global Commission on Adaptation, Adapt Now: A Global Call for Leadership on Climate Resilience, September 2019 <https://gca.org/global-commission-on-adaptation/report>.

36. Tilahun, M., Singh, A., Kumar, P., Apindi, E., Schauer, M., Libera, J., Lund H.G., The Economics of Land Degradation Neutrality in Asia: Empirical Analyses and Policy Implications for the Sustainable Development Goals, March 2018 <https://www.eld-initiative.org/fileadmin/pdf/Asia_Report_EN.pdf>.

37. UN Environment Programme, op. cit.

38. United Nations, Paris Agreement, 2015 <https://unfccc.int/sites/default/files/english_paris_agreement.pdf>.

39. For more details on WWF's views on green bonds, please refer to the "Green bonds must keep the green promise!" report (2016) <http://awsassets.panda.org/downloads/2016_green_bonds_hd_report.pdf>.

40. Bank of England Prudential Regulation Authority, Transition in Thinking: The Impact of Climate Change on the UK Banking Sector, September 2018 <https://www.bankofengland.co.uk/prudential-regulation/publication/2018/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector>.

41. Bank of England Prudential Regulation Authority, Supervisory Statement 3/19: Enhancing Banks' and Insurers' Approaches to Managing the Financial Risks from Climate Change, 15 April 2019 <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss>.

42. Environmental Finance, 'Bank of England to Stress Test UK's Financial System by 2021', 21 June 2019 <https://www.environmental-finance.com/content/news/bank-of-england-to-stress-test-uks-financial-system-by-2021.html?utm_source=240619na&utm_medium=email&utm_campaign=alert>.

43. Reuters, 'France to Stress Test Banks, Insurers' Climate Risks next Year', 30 November 2019 <https://af.reuters.com/article/energyOilNews/idAFL8N2895A6>.

44. De Nederlandsche Bank (DNB), Values at Risk? Sustainability Risks and Goals in the Dutch Financial Sector, 21 January 2019 <https://www.dnb.nl/en/news/news-and-archive/DNBulletin2019/dnb381614.jsp>.

45. Network for Greening the Financial System, Macroeconomic and Financial Stability: Implications of Climate Change, July 2019 <https://www.ngfs.net/en/technical-supplement-first-ngfs-comprehensive-report>.

46. Network for Greening the Financial System, A Call for Action - Climate Change as a Source of Financial Risk, April 2019 <https://www.ngfs.net/en/first-comprehensive-report-call-action>.

47. HM Treasury, Green Finance Strategy: Transforming Finance for a Greener Future, July 2019 <https://www.gov.uk/government/publications/green-finance-strategy>.

48. ASEAN Finance Ministers and Central Bank Governors, 'Joint Statement of the 5th AFMGM, Chiang Rai, Thailand', 5 April 2019 <https://asean.org/storage/2019/04/Agenda-9-Draft-JMS-of-the-5th-AFMGM-5-April-2019-FINAL.pdf>.

49. Datuk Nor Shamsiah Mohd Yunusat, Governor of Bank Negara Malaysia, 'Keynote Address at BNM's Regional Conference on Climate Change', 25 September 2019 <http://www.bnm.gov.my/index.php?ch=en_speech&pg=en_speech&ac=839>.

50. Benjamin Diokno, Governor of BSP, 'Speech at the Asian Banker's Finance Philippines 2019 Forum in Taguig City', 10 October 2019 <http://www.bsp.gov.ph/publications/speeches.asp?id=682>.

51. Ong Ye Kung, Minister for Education and MAS' Board Member, '"Green Finance for a Sustainable World", Speech at SFF X SWITCH 2019', 11 November 2019 <https://www.gov.sg/resources/sgpc/media_releases/mas/speech/S-20191111-1>.

52. Ibid.

53. BOT Sustainable Banking webpage <https://www.bot.or.th/Thai/SustainableBanking/Pages/Default.aspx>.

54. Veerathai Santiprabhob, Governor of BOT, 'Speech at the Bangkok Sustainable Banking Forum 2019', 13 August 2019 <https://www.bot.or.th/Thai/PressandSpeeches/Speeches/Gov/SpeechGov_13Aug2019.pdf>.

55. Task Force on Climate-related Financial Disclosures, TCFD Status Report, June 2019 <https://www.fsb-tcfd.org/publications/tcfd-2019-status-report>.

56. ACMF, 'ASEAN Capital Markets Forum Advances Regional Integration Efforts through Roadmap for Sustainable Capital Markets', 19 March 2019 <https://www.theacmf.org/media/news-release/asean-capital-markets-forum-advances-regional-integration-efforts-through-roadmap-for-sustainable-capital-markets>.

57. United Nations Environment Programme Finance Initiative (UNEP FI), Principles for Responsible Banking, September 2019 <www.unepfi.org/banking/bankingprinciples>.

58. European Commission, Green Finance <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/green-finance_en>.

59. European Commission, 'Capital Markets Union: Commission Welcomes Agreement on Sustainable Investment Disclosure Rules', 7 March 2019 <https://ec.europa.eu/commission/presscorner/detail/en/IP_19_1571>.

60. Asia Investor Group on Climate Change, CDP, Ceres, Investor Group on Climate Change, Institutional Investors Group on Climate Change, Principles, and for Responsible Investment, and UNEP Finance Initiative, 'Global Investor Statement to Governments on Climate Change' <https://theinvestoragenda.org/focus-areas/policy-advocacy/>.

61. Task Force on Climate-related Financial Disclosures <https://www.fsb-tcfd.org/tcfd-supporters>.

62. UN-convened Net-Zero Asset Owner Alliance <https://www.unepfi.org/net-zero-alliance>.

63. Science Based Targets initiative (SBTi) <https://sciencebasedtargets.org/financial-institutions>.

64. WWF-France and AXA, Into the Wild: Integrating Nature into Investment Strategies, May 2019 <https://wwf.panda.org/our_work/finance/?346755/Into-the-Wild-integrating-nature-into-investment-strategies>.

65. WWF-Singapore and NUS Business School, Sustainable Banking in ASEAN: Addressing ASEAN's Forests, Landscapes, Climate, Water, Societies, October 2017 <https://susba.org/pdfs/report-2017-compressed.pdf>.

66. Benjamin Diokno, Governor of BSP, op. cit.

67. The Association of Banks in Cambodia, Cambodian Sustainable Finance Principles Implementation Guidelines, 1 February 2019 <https://www.ifc.org/wps/wcm/connect/8ce9ddc0-2422-4e69-aa8b-e4f3c8cc3eec/Cambodia+SF+Principles+-+Implementation+Guidelines.pdf?MOD=AJPERES>.

68. Ong Ye Kung, Minister for Education and MAS' Board Member, op. cit.

69. These are mainly the Notice of the CBRC on Issuing the Green Credit Guidelines (February 2012) and the Notice of the China Banking Regulatory Commission on Key Performance Indicators of Green Credit Implementation (June 2014).

70. South China Morning Post, 'Japan Still Leads in Southeast Asia Infrastructure Race, Even as China Ramps up Belt and Road Investments: Report', 23 June 2019 <https://www.scmp.com/news/asia/southeast-asia/article/3015732/japan-still-leads-southeast-asia-infrastructure-race-even>.

71. China Banking Regulatory Commission, Notice of the CBRC on Issuing the Green Credit Guidelines, 24 February 2012 <http://www.cbrc.gov.cn/EngdocView.do?docID=3CE646AB629B46B9B533B1D8D9FF8C4A>.

72. China Banking Regulatory Commission, Notice of the CBRC on Key Performance Indicators of Green Credit Implementation, 27 June 2014 <http://www.cbrc.gov.cn/EngdocView.do?docID=C5EAF470E0B34E56B2546476132CCC56>.

73. The People's Bank of China, Guidelines for Establishing the Green Financial System, 31 August 2016 <http://www.pbc.gov.cn/english/130721/3133045/index.html>.

74. UNEP Inquiry, 'G20 Leaders Welcome "Green Finance" in Summit Communiqué', 5 September 2016 <https://unepinquiry.org/news/g20-leaders-welcome-green-finance-in-summit-communique/>.

75. Founding Members of the NGFS, 'Joint Statement at the One Planet Summit', 12 December 2017 <https://www.banque-france.fr/en/communique-de-presse/joint-statement-founding-members-central-banks-and-supervisors-network-greening-financial-system-one>.

76. Xinhua Finance, 'The Central Bank Decides to Expand the Scope of MLF Collateral to Include Green Bonds and Green Loans', 6 June 2018 <http://greenfinance.xinhua08.com/a/20180601/1763124.shtml>.

77. Paulson Institute, 'China's Green Finance Pilot Zones: Ready for Takeoff', 4 April 2019 <https://www.paulsoninstitute.org/green-finance/green-scene/chinas-green-finance-pilot-zones-ready-for-takeoff/>.

78. Green Finance Initiative, UK–China Climate and Environmental Information Disclosure 1st Year Progress Report, December 2018 <http://greenfinanceinitiative.org/uk-china-climate-environmental-information-disclosure-1st-year-progress-report/>.

79. Sustainable Banking Assessment (SUSBA), WWF, Asia Sustainable Finance Initiative <https://susba.org>. 2019 SUSBA Summary Report <https://susba.org/pdfs/report-2019-compressed.pdf>.

80. Such as renewable energy, pollution prevention & control, land and water biodiversity conservation, adaptation to climate change, environmentally sound building, etc.

81. WWF-Indonesia, 'Eight National Banks Created Indonesia Sustainable Financial Initiative (IKBI) with WWF-Indonesia', 31 May 2018 <https://www.wwf.or.id/?66383/Delapan-Bank-Nasional-Lahirkan-Inisiatif-Keuangan-Berkelanjutan-Indonesia-IKBI--bersama-WWF-Indonesia>.

82. Datuk Nor Shamsiah Mohd Yunusat, Governor of Bank Negara Malaysia, op.cit.

83. Ibid.

84. Bank Negara Malaysia (BNM), 'Inaugural Meeting of Joint Committee on Climate Change', 27 September 2019 <http://www.bnm.gov.my/index.php?ch=en_press&pg=en_press&ac=4920&lang=en>.

85. Agriculture, forestry, chemicals, infrastructure, defence, mining & metals, energy from fossil fuels, waste management.

86. Monetary Authority of Singapore (MAS), Guidelines on Risk Management Practices - Internal Controls, July 2014 <https://www.mas.gov.sg/-/media/MAS/Regulations-and-Financial-Stability/Regulatory-and-Supervisory-Framework/Risk-Management/Internal-Control.pdf>.

87. Monetary Authority of Singapore (MAS), Framework for Impact and Risk Assessment of Financial Institutions, September 2015 <https://www.mas.gov.sg/-/media/MAS/News-and-Publications/Monographs-and-Information-Papers/Monograph--MAS-Framework-for-Impact-and-Risk-Assessment.pdf>.

88. Ong Ye Kung, Minister for Education and MAS' Board Member, op. cit.

89. Singapore Exchange Ltd, SGX-ST Listing Rules Practice Note 7.6 Sustainability Reporting Guide, 20 June 2016 <http://rulebook.sgx.com/net_file_store/new_rulebooks/s/g/SGX_Mainboard_Practice_Note_7.6_July_20_2016.pdf>.

90. The Asia Sustainable Finance Initiative is a multi-stakeholder platform convened by WWF Singapore acting as secretariat and knowledge partner <https://www.asfi.asia>.

91. Bank of Thailand (BOT), 'Responsible Lending Guidelines: Important Steps in Driving Sustainable Banking in Thailand', p. 13 August 2019.

92. (i) Agriculture, (ii) Chemical, (iii) Infrastructure Construction, (iv) Energy, (v) Food and Beverages, (vi) Garment, Leather and Textile and Garment Products, (vii) Oil & Gas, (viii) Processing and Re -processing Waste, (ix) Mining, (x) Production from Non-metallic Mining Input.

93. Renewable energy, energy saving and energy efficiency, land use conversion and management, sustainable forestry, sustainable waste management, and green agriculture.

WWF
SUSTAINABLE FINANCE

100%
RECYCLED

WWF · SUSTAINABLE BANKING REGULATIONS IN ASEAN - RAISING THE BAR 2019

WWF

Working to sustain the natural world for people and wildlife

together possible™ panda.org/finance

© NASA

PANDA.ORG