



SUSTAINABLE FINANCE INITIATIVES FOR THAILAND



In collaboration with



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1. Foreword

Recognising the country's vulnerability to climate change and the pressing need to move to a more sustainable economy, Thailand has incorporated its commitments to the United Nations' 2030 Agenda for Sustainable Development and the Paris Agreement in its 20-Year National Strategy. Although some may argue that environmental, social, and governance (ESG) issues are distant threats that can be side-lined for now, the COVID-19 pandemic has, however, shown how vulnerable our health, social and economic systems are to unpredictable and extreme crises.

Sustainability has become the defining issue of our time. As part of our ongoing attempts to recover from the pandemic, all of us should take this opportunity to build back a greener and more sustainable socioeconomic system that is not only resilient to unpredictable risks, but also able to enhance the quality of life for all.

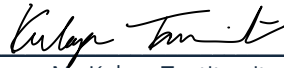
The financial sector plays a crucial role in channelling financial flows towards the real economy's transition towards sustainability. Banks could help to promote sustainable businesses and projects through sustainable lending, e.g. green loans, while also issue green bonds themselves to finance their sustainable lending portfolios. Underwriters engage with corporate clients in offering various types of sustainable fundraising products such as green and social bonds. Investors, namely retail investors, insurance companies, and investment management companies, engage in a strategic asset allocation to align their portfolios with long-term sustainability objectives. Bridging the needs of fundraisers and those of investors, ESG disclosure requirements promote informational efficiency by providing accurate and timely ESG information for stakeholders to evaluate relevant ESG risks and opportunities. Moreover, the government authorities' incentive schemes shape the direction of the desired types of sustainable activities.

As a result, the Working Group on Sustainable Finance (WG-SF) is established to cooperate on the sustainable finance agenda and to support the Thai economy in achieving the Sustainable Development Goals (SDGs) and carbon emission reduction targets.

One of our key work plans is to formulate the Sustainable Finance Initiatives for Thailand (the Initiatives). This serves as a crucial starting point for further collaboration to advance the development and implementation of policies that will direct the future of the Thai financial system towards sustainability. The Initiatives envision that the Thai financial sector will play a significant role in financing the real economy's transition towards sustainability, and be able to effectively manage financial risks stemming from climate change, environmental degradation, governance and social issues. We believe that strategy and capacity dedicated to sustainable development are more than mere risk mitigation tools. Rather, they will be the key drivers of long-term competitiveness and profitability in this uncertain and fast-changing world.

Ultimately, the success of the sustainable finance ecosystem depends on a strong coordination of every stakeholder to refine the framework and methodologies together. Although the financial regulators could facilitate the establishment of necessary infrastructure and enablers, it is the private sector and individual consumers who will be driving the economic activities and moving the society forward into a greener and

more sustainable future. Therefore, to rebuild a better and stronger economy, the public and private sectors must collaborate closely to transform the Initiatives into concrete actions.



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2. Executive Summary

Thailand is a country rich in natural resources, which have played a significant role in supporting local livelihoods and driving economic growth. Forests, watersheds, marine environments, and mineral resources have all been instrumental in supporting the Thai manufacturing, export, and tourism industries. Thailand faces increasing environmental degradation in many regions, including the loss of biodiversity and declining wildlife populations, deforestation, desertification, water scarcity, climate change, and air and water pollution.¹

The Royal Thai Government, acknowledging the country's vulnerability to climate change and the urgent need to transition to a more sustainable economy, has embedded Thailand's commitments to the Sustainable Development Goals (SDGs) and its Nationally Determined Contributions (NDCs) in its National Strategy, and the Twelfth National Economic and Social Development Plan (NESDP).

The Thai financial sector, as intermediaries for capital mobilisation and allocation of economic resources, recognises its role in driving Thailand's sustainable growth and have set themselves the goal of developing an ambitious yet practical Sustainable Finance Initiatives for Thailand (the Initiatives) to transform the financial sector. The Thai financial regulators also recognise their role in supporting the financial sector to better recognise, measure, model, and monitor these risks to limit potential negative impacts on their businesses and the environment and society as a whole.

Key objectives of the Initiatives are to:

1. Advance for the financial sector's current and future role in supporting Thailand and ASEAN in achieving a sustainable economic development model through a continual focus on the SDGs, and transitioning to a low-carbon economy by accomplishing its NDCs;
2. Facilitate the development and implementation of decisions and policies relevant to sustainable finance in the financial sector;
3. Inspire the financial sector authorities, stakeholders, and society at large to value, promote, and require the inclusion of environmental, climate, social, and governance issues and considerations within the financial decision-making processes as a means of fostering sustainable economic development; and
4. Set forth the implementation of recommendations and goals which advance the sustainable transformation of Thailand's financial sector by December 2025.

The Initiatives envision a commercially viable and sustainable Thai financial sector by 2025 that:

1. Plays a significant role in financing the real economy's transition, and channelling capital flows towards sustainable growth and development; and
2. Effectively manages financial risks stemming from climate change, resource depletion, environmental degradation, and social and governance issues through the adoption of robust risk management frameworks that properly monitor, report, and verify ESG risks and opportunities.

¹ Open Development Thailand: Environment and natural resources (<https://thailand.opendevdevelopmentmekong.net/topics/environment-and-natural-resources/#:~:text=Thailand%20faces%20increasing%20environmental%20degradation,and%20air%20and%20water%20pollution>)

Summary of key actions

As the Initiatives encompass the entire financial sector, they shall directly result in the sustainable transformation of the financial sector, and indirectly support the transition of the real economy to a sustainable model. Such an undertaking will necessitate successful collaboration among and between government agencies, private sector market participants, international partners, as well as the financial sector regulators and members of the Working Group on Sustainable Finance (WG-SF). Below is a summary of key actions, or Key Strategic Initiatives (KSI), contained within the Initiatives. These KSIs represent crucial action programmes focused on the specific objective of transforming the Thai financial sector. These KSIs do not represent business-as-usual. Instead, these action programmes are central to transforming the financial sector and delivering the WG-SF's commitments of fostering and implementing sustainable finance within Thailand's financial sector, on or before December 2025.

The following provides a brief description of the KSIs with detailed information on their respective rationales, current status, key consideration, recommended actions, and time horizons contained in Section 5 (Key Strategic Initiatives).

KEY STRATEGIC INITIATIVES	DESCRIPTION
KSI 1: Developing a Practical Taxonomy	Developing a practical national sustainable finance taxonomy will promote inward investment flows across Thailand's financial subsectors from domestic and international investors. A well-defined and structured taxonomy also supports better-informed and more efficient decision-making and responses to investment opportunities that contribute to achieving national sustainable development objectives.
KSI 2: Improving the Data Environment	Developing a rich data environment encourages the flourishing of new products and markets which meet the sustainability criteria of a wider and more diverse range of investors. The quality, depth, immediacy, and price of sustainable finance data will be a key competitive advantage as Thailand positions itself against other sustainable finance centres.
KSI 3: Implementing Effective Incentives	Implementing effective incentives facilitates and promotes policies and mechanisms that incentivise financial flows towards sustainable development. These incentives can include fiscal and prudential policies in the main, but non-financial approaches should also be considered where viable.
KSI 4: Creating Demand-led Products and Services	Creating demand-led products and services is essential for a thriving sustainable finance sector which requires reinvestment in continual improvement. To reach this state, there must be real underlying demand for sustainable products and services, and a genuine interest in the different aspects of sustainability.
KSI 5: Building Human Capital	The transformation to a sustainable financial sector will be driven by the day-to-day interactions among relevant stakeholders. The quality of those interactions will depend upon their skills, competences, values, and behaviours of the management and staffs of the financial sector.

3. Background and Motivations for Developing the Initiatives

3.1. Background to the Initiatives

National commitment to transition to a more sustainable economy

The Royal Thai Government, acknowledging the country's vulnerability to climate change and the urgent need to transition to a more sustainable economy, has embedded Thailand's commitments to the Sustainable Development Goals (SDGs) and its Nationally Determined Contributions (NDCs) in its National Strategy, and the Twelfth National Economic and Social Development Plan (NESDP).

Sustainability has been one of the key strategic priorities of the nation. The Sufficiency Economy Philosophy (SEP) of His Majesty the late King Bhumibol Adulyadej, Rama IX, has established the pathway for Thailand to achieve the United Nations (UN)'s 17 SDGs and become an integrated social and environmental economy.

Sufficiency Economy Philosophy for Sustainable Development Goals of Thailand²



² Open Development Thailand: Sustainable Development Goals (<https://thailand.opendevopmentmekong.net/topics/sustainable-development-goals>)

In addition, the National Climate Change Master Plan (2015-2050)³ is designed to help Thailand achieve sustainable low-carbon growth and climate change resilience by 2050, in which the NDCs to reduce the greenhouse gas (GHG) emissions by 20% from the business-as-usual level by 2030 is specified. The level of contribution could increase up to 25% subject to adequate and enhanced access to technology development and transfer, financial resources, and capacity building support through a balanced and ambitious global agreement under the UN Framework Convention on Climate Change (UNFCCC). The Master Plan has clear missions on climate change as stated below:

*“Building climate resilience into national development policy by integrating directions and measures in all sectors at both national and sub-national levels to ensure country’s adaptability to climate change; Creating mechanisms to reduce GHG emissions, and leading to sustainable low carbon growth; Building readiness of master plan implementation by enhancing potential and awareness of all development partners; and Developing database, knowledge, and technology to support climate change adaptation and sustainable low carbon growth”.*⁴

The Thai financial sector regulators’ commitment to support the transition to a more sustainable economy

Each of the regulatory agencies has made considerable progress in developing the sustainable finance ecosystem for their respective domains.

Thailand’s capital market has made relatively more progress towards a comprehensive sustainable finance framework, in line with the international investment industry who developed the Principles of Responsible Investment (“PRI”) in 2005.

That said, there have been initiatives by the banking sector such as the launch of the Sustainable Banking Guidelines and quite a few encouraging developments in the insurance industry, particularly in the field of financial inclusion.

Highlights of progress made within and by the different subsectors are described below:

Banking Sector

The Bank of Thailand (BOT)’s three-year Strategic Plan (2020 – 2022): Central Bank in a Transformative World⁵ incorporates many objectives related to sustainability and such key themes such as:

- Encouraging financial institutions to integrate sustainability (environmental, social and governance) into the business and operating models.
- Alleviating household over-indebtedness and reducing financial vulnerability.
- Promoting fair financial services and consumer protection, while also encouraging financial literacy and discipline among consumers.

³ Thailand Climate Change Master plan 2015-2050 (https://climate.onep.go.th/wp-content/uploads/2019/07/CCMP_english.pdf)

⁴ Ibid

⁵ Bank of Thailand’s Strategic Plan (2020 – 2022): Central Bank in a Transformative World (https://www.bot.or.th/English/AboutBOT/RolesAndHistory/DocLib_StrategicPlan/BOT-StrategicPlan2020to2022-eng.pdf)

The BOT is also a member of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and subscribes to its key principles.

The BOT has launched an annual Bangkok Sustainable Banking Forum (beginning 2018), a major event which aims to deepen understanding and adoption of best practice in sustainability by the Thai banking industry, and also to alert the banking sector to ESG threats that form prudential risk management challenges.

The BOT played a key role in supporting the Thai Bankers' Association (TBA) in the development of the Memorandum of Understanding on Sustainable Banking Guidelines for Responsible Lending (the MoU), signed by all TBA members in October 2019 and by the Association of International Banks (AIB) members in February 2020. The MoU focuses on promoting responsible lending, encouraging banks to incorporate ESG risk into their lending strategies, and translating them into implementation.

Moreover, the Fiscal Policy Office (FPO) administers the Bureau of Financial System and Financial Institutions Policy, whose mandates include, but are not limited to, policy formulation for Specialised Financial Institutions (SFIs). In their roles as quasi-fiscal policy tools, SFIs embark on achieving inclusive and sustainable growth by filling in the underlying financial gaps prevalent among the underserved populations and entrepreneurs, thereby expanding access to capital in specific markets. In so doing, the Bureau of Financial System and Financial Institutions Policy's 5-year plan (2021 - 2025) rests on 3 key pillars: finance for all, literacy for all, and responsibility for all. Specifically, 'responsibility for all' pillar incorporates Sustainable Banking principles into SFIs' missions and practices, taking social and environmental risks and impacts on the relevant stakeholders into account when assessing loan applications.

Capital Market Sector

The Securities and Exchange Commission Thailand (SEC) as the capital market regulator refers to sustainability in one of the foundation statements of the organisation: its vision "The SEC is ready to embrace changes and develop a sustainable capital market and economy for the benefit of all stakeholders". The SEC's collaboration with the Stock Exchange of Thailand (SET) and other stakeholders, has been instrumental in positioning Thailand among the recognised leaders in sustainable capital markets, not only in ASEAN but around the world. The SEC participates in the International Organization of Securities Commissions' Sustainable Finance Network and Sustainable Stock Exchange initiative (Regulator Group) to share experiences and contribute to sustainable finance directions in international forums. One of the main aims of Thailand's Capital Market strategic plan (2020 - 2022) is the development of the Sustainable Capital Market roadmap. The SEC has also been developing a sustainable finance ecosystem which aligns with Thailand's SDGs, thereby ensuring its strategic direction is aligned with and contributes to Thailand attaining its SDGs.

The key pieces of intellectual property developed by the SEC are the Corporate Governance Code (CG Code) and the Investment Governance Code (I Code). The CG Code has been developed as a suite of best practice principles for the board of directors, as the leadership and governing body of a listed company. As part of the ASEAN Capital Markets Forum (ACMF) initiative, the SEC supports the implementation of ASEAN Corporate Governance Scorecard as a benchmark for the development of standards and practices. The I Code is a voluntary code, which was adapted from standards for responsible investment and effective stewardship. Aimed at institutional investors in Thailand's capital markets, the I Code encourages them to adopt a more diligent and active approach to the governance of their investments, including the incorporation of ESG/ sustainability criteria and an active approach to ownership. To assess the level of I Code adoption, the SEC has issued the self-assessment survey for asset managers. In addition, the SEC will issue the guidelines for listed companies' provident funds on how to apply the I Code into their process to ensure ESG is included as criteria for selecting fund managers.

The SEC has another key role in promoting capital allocation towards sustainable projects using various types of financial instruments. Among the most prominent are green bonds, of which annual issuance has risen from

THB 10.12 billion in 2018 to THB 126.56 billion in 2020. In 2020, the SEC and the Thai Bond Market Association designed and launched a Green, Social, and Sustainability Information Platform to serve as a knowledge centre on ESG debt issuance. Furthermore, the SEC has been actively working with related entities to provide capacity building to potential issuers, underwriters, and investors. For example, the SEC has organised three Green Bond Bootcamps in 2019 to develop technical know-how in the process of green bond issuance and understanding green bond taxonomy.

The Ministry of Finance (MOF) has recently led the successful development of the Kingdom of Thailand Sustainable Financing Framework under which it intends to issue sovereign green, social and sustainability bonds, and loans. The first Thai sovereign sustainability bonds, the Sustainability Bonds (Debt Restructuring - On-lending) and the Sustainability Bonds (COVID-19), were launched in August 2020 and November 2020 with the total aggregate principal amount of THB 50 billion.

The SET has been supportive and actively promotes quality sustainability practices among listed companies through the development of ESG guidance and capacity building efforts, including a variety of training and advisory programmes. In particular, the SET has been promoting quality sustainability disclosure among listed firms of all sizes to ensure their reporting is aligned with local and international standards. The SET has also launched a number of innovative sustainable finance products or market development initiatives to strengthen Thailand's visibility in the regional and global sustainable finance markets, including the Thailand Sustainability Investment (THSI), the SETTHSI Index (which is comprised of listed companies selected from the THSI list), and supporting qualifying listed companies with large market capitalisation to be included in the Dow Jones Sustainability Indices (DJSI) and MSCI ESG Universal Index. The SET works with global ESG data vendors in highlighting the ESG performance of the Thai listed companies and supporting the SEC in creating the market for green, social, and sustainability bonds, as well as other ESG products and alternative investments (e.g. ESG funds, Exchange Traded Funds (ETFs)). In addition, the SET has been developing ESG professionals, including investment analysts, fund managers, investment consultants and investor relations professionals, in the capital market through numerous online and offline learning tools (e.g. training courses, E-learning and video clips).

Insurance Sector

Sustainability is also at the heart of the insurance sector's strategy with the Office of Insurance Commission (OIC)'s vision of building knowledge, capability, and confidence of the public in applying the insurance system for risk management, security creation and a sustainable future. The OIC is reinforcing sustainability and insurance themes in the next iteration of the Insurance Development Plan, version 4 which will be implemented from 2021.

The OIC described its principal objective as the duty to maintain financial stability, which is an essential component of sustainability. Moreover, the OIC recognises the role and importance of promoting and encouraging the environmental, social, and governance aspects of sustainability. The OIC advocates the Thai insurance sector through initiatives that encourage insurers to increase their influence by conducting business with transparency, responsibility, and integrity, which are elements of sustainability. For instance, the OIC enforces laws and regulations that encourage insurance companies to disclose significant information to the public, thereby creating fairness and transparency. Additionally, the OIC collaborates with insurance-related entities to develop insurance products that provide tools for managing risks, improving well-being and creating positive impact on environment and society, such as developing agricultural insurance products that support the Thai farmers in managing catastrophic and economic risks, developing such insurance products that drive inclusion as "Personal Accident Insurance" (with premium THB 7 and THB 10) to increase equality in risk management and reduce the insurance protection gap, and developing health insurance products, such as Covid-19 Insurance policies designed to mitigate the impact of the pandemic on the society and enhance the personal risk management.

Apart from enforcement and product development, the OIC also encourages and promotes insurance literacy in order to mitigate environmental risks and improve risk management awareness. Examples of such undertakings include the launching of “the OIC for Community project” to improve insurance literacy particularly relating to risk mitigation, and promote a more comprehensive understanding of the rights and benefits for communities across the country, the provisioning of a digital online channel for insurance policy approval (I-SERFF) and development of the application “Me Claim”, which aims to facilitate effective motor insurance claims and reduce traffic congestions and air pollution. These initiatives have been undertaken to promote and improve sustainability within the Thai Society.

The Financial Sector Sustainable Finance Working Group

In 2017, the Three Regulators Steering Committee was formulated by the BOT, SEC, OIC, and MOF. The Three Regulators Steering Committee is a non-statutory body that provides a regular platform for the three key financial regulators to discuss policy issues. Since the committee's inception, it has formed working groups to address common issues and/or concerns in which the sustainable finance is included.

In 2019, the Three Regulators Steering Committee established and mandated the Working Group on Sustainable Finance (WG-SF) to foster and monitor a culture of sustainable finance throughout Thailand's financial sector. The membership of the WG-SF consists of representatives from the BOT, FPO representing the MOF, OIC, SEC, and SET.

3.2. Motivations for Developing the Initiatives

The Thai economy and the financial sector are facing various sustainability challenges and threats.

According to the recent World Bank report⁶, although Thailand has made significant progress toward its twin goals of eliminating poverty and increasing shared prosperity, the country is facing a number of sustainability challenges, not limiting to:

The rate of environmental degradation has accelerated significantly over the past 20 years, which when compounded by the adverse effects of climate change might make Thailand's future growth less sustainable. Thailand is a country rich in natural resources that have played a significant role in supporting local livelihoods and driving economic growth. Forests, watersheds, marine environments, and mineral resources have all been instrumental in supporting the Thai manufacturing, export, and tourism industries. Thailand faces increasing environmental degradation in many regions, including the loss of biodiversity and declining wildlife populations, deforestation, desertification, water scarcity, climate change, and air and water pollution.⁷

Climate change and vulnerabilities are risks to Thailand's future growth and shared prosperity, and the effects of climate-related risks are expected to affect the bottom 40% of income disproportionately.⁸

Thailand is vulnerable to various natural and human-induced hazards: floods, droughts, landslides, forest fires and epidemics. The 2011 flood was the worst flood in the modern Thai history with total damage and losses of THB 1.43 trillion (USD 46.5 billion) of which approximately 90% were borne by the private sector. Long-term

⁶ World Bank Group: Thailand - Systematic Country Diagnostic: Getting Back on Track - Reviving Growth and Securing Prosperity for All (<https://www.worldbank.org/en/country/thailand/publication/thailand-systematic-country-diagnostic-getting-back-on-track-and-reviving-growth>)

⁷ Open Development Thailand: Environment and natural resources (<https://thailand.opendevlopmentmekong.net/topics/environment-and-natural-resources/#:~:text=Thailand%20faces%20increasing%20environmental%20degradation,and%20air%20and%20water%20pollution>)

⁸ World Bank Group: Thailand - Country Partnership Framework for the Period 2019-2022 (<http://documents1.worldbank.org/curated/en/770551542942024490/pdf/125234-REPLACEMENT-PUBLIC-TH-WBG-Framework-ENG-FINAL-Mar-11.pdf>)

changes in weather patterns that would increase the likelihood of floods or fire risks can reduce agricultural output, change patterns in tourism, and adversely impact economic growth.

Poverty, inequality, and ageing population continue to be social challenges. As of 2014, 7.1 million Thais were still living in poverty (based on the current national poverty line of approximately USD 6.20 in 2011 PPP). Income inequality has grown in recent years, particularly between industrial regions and rural areas. The ageing population is reducing the labour-force participation and putting increased pressure on care systems.

In addition to the above referenced demographic challenges, the COVID-19 pandemic has had severe impacts on the economy, given Thailand's openness to trade and its status as a tourism hub or destination of choice. The pandemic has led to job losses, negatively impacted the local labour market, and has increased income inequality across regions.⁹

It is clear that the mitigation of physical and transition risks is critical to protecting sustainable economic development in Thailand. However, it should also be recognised that the adoption of sustainable models of development could also become a source of competitiveness and profitability, as Thailand's approach directly addresses the risks of uncertainty and change.

The financial sector has a significant role in tackling Thailand's sustainability challenges and realising Thailand's sustainability commitments.

Thailand's credit institutions¹⁰ play a vital role as intermediaries for capital mobilisation and allocation of economic resources, as well as providers of payment and settlement services. As of 2019, domestic credit to the private sector accounted for approximately 143% of the GDP¹¹, and the total assets held by the Thai lenders amounted to THB 47.76 trillion as of 3rd Quarter 2020. Based on asset size, depository institutions played the most significant role with a share of 69.75%, while non-depository institutions accounted for a 30.25% share.¹² The most significant depository institutions are commercial banks and SFIs with shares of 45.04% and 15.13%, respectively.¹³

In terms of debt and equity capital markets in 2020, the SET had a market capitalisation of approximately THB 16 trillion¹⁴, representing 101% of GDP.¹⁵ The total bond outstanding was approximately THB 14.3 trillion, of which over 26% is corporate bond.¹⁶ Thailand's asset managers had over THB 10.8 trillion under management.¹⁷

The financial sector does and should play an increasingly significant role in exerting influence over the allocation of capital towards more sustainable investments and in creating economic opportunities through market innovations, contributing to tackling urgent national sustainability challenges, including climate

⁹ World Bank: Thailand Economic Monitor - Thailand in the Time of COVID-19 (<https://openknowledge.worldbank.org/bitstream/handle/10986/34047/Thailand-Economic-Monitor-Thailand-in-the-Time-of-COVID-19.pdf?sequence=4&isAllowed=y>)

¹⁰ There are 2 types of financial institutions in Thailand: depository and non-depository. Depository institutions include commercial banks, Special Financial Institutions ("SFIs"), credit unions (CUs) and thrift and credit cooperatives (TCCs), and money market mutual funds. Non-depository institutions include mutual funds, insurance companies, provident funds, asset management companies, and securities companies.

¹¹ World Bank Data (<https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS?locations=TH>)

¹² Bank of Thailand: Q3-2020 Financial Institutions System: Asset Size of Major Financial Institutions

¹³ Ibid

¹⁴ The Stock Exchange Thailand: Market Statistics 2020 (https://www.set.or.th/en/market/market_statistics.html)

¹⁵ The preliminary nominal GDP figure from 2020 is approximately THB 15.7 trillion. Office of the National Economic and Social Development Council: National Account (https://www.nesdc.go.th/main.php?filename=qgdp_page)

¹⁶ The Thai Bond Market Association: 2020 Thai Bond Market Review (<https://www.thaibma.or.th/Doc/annual/SummaryMarket2020.pdf>)

¹⁷ This includes mutual funds and other funds, such as Government Pension Fund, Social Security Fund, and Provident Fund. Association of Investment Management Companies: Statistics (<http://ns3.aimc.or.th/web/industry-overview>)

change, natural ecosystem degradation, and supporting Thailand's commitments to attaining its SDGs and NDCs.

The recent pandemic has highlighted the vital role the financial sector can play in mitigating the economic shocks on the economy and enhancing the financial and economic resilience to disasters. It has also shown that global prosperity and quality of life are profoundly more vulnerable to unforeseen environmental risks (including disease) than is generally assumed, and that climate change is likely to dramatically increase uncertainty and unexpected calamities (both protracted and rapid). Therefore, adopting sustainable finance is an urgent imperative. Though the return to economic growth is vital to underpin livelihoods, the costs of adopting sustainable finance must not inhibit the role that the financial sector plays in supporting this.¹⁸

The Thai financial sector regulators recognise their role in supporting Thailand's national sustainability commitments, and with the support of the WG-SF, have set the goal of developing an ambitious yet practical Sustainable Finance Initiatives for Thailand (the Initiatives) to transform the financial sector. The Initiatives will serve as a framework for policy direction and collaboration among the financial sectors regulators.

3.3. Objectives of the Initiatives

Key objectives of the Initiatives are to:

1. Advance for the financial sector's current and future role in supporting Thailand and ASEAN in achieving a sustainable economic development model through a continual focus on the SDGs, and transitioning to a low-carbon economy by accomplishing its NDCs;
2. Facilitate the development and implementation of decisions and policies relevant to sustainable finance in the financial sector;
3. Inspire the financial sector authorities, stakeholders, and society at large to value, promote, and require the inclusion of environmental, climate, social, and governance issues and considerations within the financial decision-making processes as a means of fostering sustainable economic development; and
4. Set forth the implementation of recommendations and goals which advance the sustainable transformation of Thailand's financial sector by December 2025.

¹⁸ UN Environment Programme et al: Implications of the Covid-19 Pandemic for Global Sustainable Finance (https://unepinquiry.org/wp-content/uploads/2020/05/Implications_of_the_COVID-19_Pandemic_for_Global_Sustainable_Finance.pdf)

4. Thailand's Approach to Sustainable Finance

4.1. Defining Sustainable Finance

The “sustainable finance”, “green finance”, “climate finance” and “low carbon finance” terms relate to an overlapping territory of issues, applied to financial decision-making and flows relating to environmental issues, social issues, economic issues, and governance issues.

Although the terms are not always used consistently, in general a distinction can be drawn between approaches to sustainable finance which take a broader environmental, social, economic, and governance approach, and those that take a narrower, “green finance” approach focusing primarily on environmental concerns and issues.

A core philosophy of sustainable finance is that environmental, social, and governance considerations are relevant factors in financing, investing, and insuring decision-making and should therefore be considered by responsible stakeholders.

The Initiatives define sustainable finance as:

“An approach that explicitly acknowledges the relevance of environmental, social, economic, and governance factors, and requires stakeholders, including regulators and market participants to incorporate such sustainability factors into their financing, investing and insuring analysis, risk management, and decision-making process, as well as within their fiduciary responsibilities, resulting in greater long-term investments in sustainable economic activities.”

Defining sustainable finance helps establish a starting point for a type of financial system that the financial sector regulators would like to transition towards, thus enabling collective actions can be orchestrated more effectively. In the next section, recommended actions have been mapped out with the appropriate time horizon. In the context of the Initiatives, short-term covers the actions that should be completed within 1-2 years, and medium-term covers the actions that should be completed within 3-5 years.

4.2. Our Visions Towards Sustainable Finance

The Initiatives envision a commercially viable and sustainable Thai financial sector by 2025 that:

1. Plays a significant role in financing the real economy's transition, and channelling capital flows towards sustainable growth and development; and
2. Effectively manages financial risks stemming from climate change, resource depletion, environmental degradation, and social and governance issues through the adoption of robust risk management frameworks that properly monitor, report, and verify ESG risks and opportunities.

4.3. Key Features of a Successful Sustainable Finance Ecosystem for Thailand

To drive the sustainable finance agenda, the Thai financial regulators recognise the needs to build and nurture a sustainable finance ecosystem where all relevant market participants, their interrelations and interdependencies are working towards:

- Integrating environmental, social, and governance (ESG) considerations within the financial decision-making process which will then lead to increased longer-term investments into sustainable economic activities, and also help reduce financial risks stemming from climate change, resource depletion, environmental degradation, and social issues.
- Employing a variety of innovative strategies and solutions to address ESG and economic development issues and concerns.
- Adopting and implementing ESG-related standards and practices to manage the financial sector's ESG footprint.

The mentioned ecosystem is a network of organisations including suppliers (ESG fundraisers), investors and consumers (ESG investors), distributors (including ESG fundraisers and investors), competitors, government agencies and other stakeholders involved in the transformation of Thailand's financial sector and creating a more sustainable future. The following diagram illustrates five interrelated and inseparable elements that promote a sustainable finance ecosystem, namely a strong pipeline of ESG fundraisers, a deep pool of ESG investors, a strong awareness of ESG by different stakeholders, a robust mechanism for ESG validation, and a highly regarded and talented pool of human capital.¹⁹

The five elements support, promote, and nurture a sustainable financial ecosystem as follows:



¹⁹ This is documented based on the review of different sustainable finance background papers including SBN Global Measurement Framework, UNEP: The Financial System We need from Momentum to Transformation (http://unepinquiry.org/wp-content/uploads/2016/09/The_Financial_System_We_Need_From_Momentum_to_Transformation.pdf) and UNEP: Nudging the Financial System at https://unepinquiry.org/wp-content/uploads/2020/04/Nudging_the_Financial_System.pdf

A strong pipeline of ESG fundraisers who:

- Align their business strategies to contribute to the national SDGs, the Paris Agreement, other national commitments such as Thailand's National Action Plan on Business and Human Rights, and other internationally-recognised sustainability standards.
- Establish policies and procedures for managing financial risks stemming from climate change, resource depletion, environmental degradation, and social issues, and for minimising potential negative impacts that the businesses might cause to the environment and society as a whole.
- Develop innovative products and solutions targeting ESG impact sectors.
- Disclose ESG commitments, performance targets and progress, which are aligned with the recognised disclosure standards.

A deep pool of ESG investors who:

- Integrate environmental, climate, social and governance issues into their investment analysis and decision-making processes.
- Operate as active owners that incorporate ESG issues into their ownership policies and practices.
- Disclose sustainable investment commitments, performance targets and progress, and require disclosure of ESG commitments, targets, and progress by investee entities.
- Exercise their choices as retail investors by selecting products based on a range of SDGs or climate-related criteria which reflect their personal ethics and values.

Strong awareness of ESG by different stakeholders which can be reflected through:

- Public and private sector collaboration in formulating cost estimates for attaining NDCs and SDGs commitments, as well as estimating expected sources of funding.
- Public and private sector collaboration to quantify investors' demand and preferences for sustainable finance products.
- The commitment of market participants, regulators, and related stakeholders to promote the importance and long-term benefits of effectively assessing ESG risks and opportunities.

A robust mechanism for ESG validation which:

- Contributes to the availability of trusted and affordable ESG verification service providers to furnish and ensure investor confidence and objectivity in identifying ESG impact and the avoidance of "green and sustainability washing".
- Facilitates establishing standards for classifying sustainable activities based on contributions to environmental objectives and technical criteria, as well as wider social and sustainability factors, which are clear, practical, and well-understood.
- Expands the availability of comparable ESG information for investors.

Highly regarded and talented human capital fosters:

- Strong oversight of ESG mandate and strategies (by leaders, board members, independent directors) to maintain, expand, and deepen the skilled human capital pool.
- Enhanced ESG and climate risk management and innovative products and services development via capacity building, knowledge sharing, information dissemination, and advocacy.

4.4. Key Strategic Initiatives Contributing to the Sustainable Finance Ecosystem

A Gap Analysis with the support of IFC and GBRW was conducted in 2020 to take stock of Thailand's financial sector policies, as well as regulatory and industry association actions taken to date to promote sustainable finance. The key findings revealed that while Thailand has made a striking progress in the early phases of developing their sustainable finance ecosystem, especially vis-à-vis regional peers, there are various “Key Dependencies” that must be addressed and overcome, if Thailand is to maintain and improve its reputation as a sustainable finance centre of excellence. The resulting recommendation suggests that a systematic approach be taken via the development of national sustainable finance initiatives with broad support from both the public and the private sector

The recommended Key Strategic Initiatives (KSI), represent crucial action programmes, to address those “Key Dependencies” with specific objectives of transforming the Thai financial sector toward its sustainability goals. These KSIs do not represent business-as-usual. Instead, these action programmes are central to transforming the financial sector and delivering the WG-SF's commitments of fostering and implementing sustainable finance within Thailand's financial sector, on or before December 2025.

The following is a summary of the respective KSIs, their rationales, and how they contribute to Thailand's sustainable finance ecosystem. Detailed information of the respective KSIs is contained in Section 5 (Key Strategic Initiatives) of the Initiatives. The KSI included within the Initiatives are:

KEY STRATEGIC INITIATIVES	CONTRIBUTION TO THE SUSTAINABLE FINANCE ECOSYSTEM
KSI 1: Developing a Practical Sustainable Finance Taxonomy	A taxonomy is a way of classifying financial flows by their relationship to and impact on different types of sustainable development. It will establish a “common” investment language between investors and investees about the classification of financial flows from the former to the latter. This will assist in the development and effective connection of a “Strong pipeline of ESG fundraisers” and a “Deep pool of ESG investors” and vitally improve the objectivity of ESG verification methodologies and the development of a cohort of well-regarded monitoring, reporting, and verifying actors, thus contributing directly to the Robust Mechanisms for ESG Verification. Finally, a taxonomy also allows the development of innovative new products and services, such as green loans, bonds, and index-linked capital market products. Without a taxonomy, it is difficult for product developers to discriminate between financial flows and underpin ESG criteria into the key product features. In this way the KSI harmonises with the “Highly regarded and talented human capital pool”.
KSI 2: Improving the Data Environment	Developing a rich data environment will encourage fundraisers to continually improve the quantity and quality of ESG-related data they produce, and to understand how it adds real value to investors and lenders. This facilitates both “Strong pipeline of ESG fundraisers” and a “Deep pool of ESG investors”. In a virtuous circle, the latter will also be encouraged into the market by deeper levels of confidence and trust in the ESG practices of fundraisers, and the former will benefit from continually improved pricing. Without improved data, it is impossible to build “Robust Mechanisms for ESG Verification”. Furthermore, ESG verification is also essential in the development of the new products and markets anticipated in the desired ecosystem.
KSI 3: Implementing	Implementing Effective Incentives will encourage a “Strong pipeline of ESG fundraisers” by improving the risk/ reward profile of sustainable development compared to other asset classes. From the return perspective, sustainable fundraisers may get an improved return

KEY STRATEGIC INITIATIVES	CONTRIBUTION TO THE SUSTAINABLE FINANCE ECOSYSTEM
Effective Incentives	through tax breaks in particular. Incentives, from a risk perspective, also contribute to a “Deep pool of ESG investors”. Instruments such as guarantees, sub-ordinated debt, and/or equity investment underpinned by the state can radically change the risk profile of potential investment or loan.
KSI 4: Creating Demand-led Products and Services	Marketing and product development are disciplines whereby suppliers look to successfully connect with customers in their chosen markets. In developing this KSI the term “demand-led” is emphasised to stress that customer knowledge and understanding will be key to developing products and services which have a ready market, internationally or domestically. Financial services are somewhat different to transactions in the real economy, in that both parties to a transaction are meeting a need from the other, so a customer focus from both sides is necessary in ensuring the “Strong pipeline of ESG fundraisers” meets a “Deep pool of ESG investors”. However, in recognising that products and services should be demand-led, often users may have a need that is yet to be identified. In this case, the role of “Strong awareness of ESG by different stakeholders” becomes instrumental.
KSI 5: Building Human Capital	There is a direct and explicit link with the Highly regarded and talented human capital pool, which is key to ensuring effective ESG product and market development as well as the parallel risk management competences. The development of human capital is also connected to the “Strong awareness of ESG by different stakeholders”, and training and development has always played a role in awareness raising. Critical here is that training and development is not just limited to financial services practitioners, but extending to fundraisers, investors, and policymakers. It is the combination of the above ecosystem features which will facilitate the development of a Deep pool of ESG investors.

How the KSIs contribute to Thailand's sustainable finance ecosystem and the sustainable transformation of the financial sector is presented below:



5. Key Strategic Initiatives

5.1. KSI1: Developing a Practical Taxonomy

Rationale As discussed previously, the quantum of finance required by Thailand to achieve its SDGs and NDCs is immense. A taxonomy is a way of classifying these financial flows by their relationship to and impact on different types of sustainable development. Policymakers need a taxonomy to monitor and measure the flows of finance towards sustainable development, and to refine policy as a result. Asset managers need to be able to manage their assets in line with sustainable portfolio strategies demanded by investors and customers. A taxonomy also underpins the development of innovative sustainable finance products and services. Currently Thailand does not have a comprehensive sustainable finance taxonomy, and it is a key dependency for developing a thriving sustainable finance sector.	KEY DRIVERS Critical for classifying financial flows Vital for developing new financial products and services Essential for attracting new pools of capital Instrumental for developing and refining policy
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Sustainable Finance Ecosystem

The implementation of KSI1: Developing a Practical Taxonomy contributes to the development of the Sustainable Finance Ecosystem in the following ways:

- It will establish a “common” investment language between investors and investees about the classification of financial flows from the former to the latter. This means it will assist in the development and effective connection of a “Strong pipeline of ESG fundraisers” ● and a “Deep pool of ESG investors” ●
- In a similar way, this common language is vital in improving the objectivity of ESG verification methodologies and the development of a cohort of well-regarded Monitoring, Reporting and Verification actors. This contributes directly to the “Robust Mechanisms for ESG Verification” ●
- By clearly describing the make-up of sustainable and unsustainable activities, a taxonomy also creates “Strong awareness of ESG by different stakeholders” ●

Current Status

Developing a Practical Sustainable Finance Taxonomy will promote sustainable finance capital formation by building or adopting a taxonomy that is suitable for the Thai context, while also being sufficiently interoperable with leading international financial centres. It will encourage domestic savings and investment, as well as inward flows from international investors and lenders, across Thailand's financial subsectors. A well-defined and structured taxonomy can support better-informed and more efficient decision-making, and responses to investment opportunities that contribute to achieving national sustainable development objectives. A robust taxonomy is also instrumental in the development of new products and services such as green bonds, loans, and index-linked capital market investment products.

Some of this taxonomy is already in place – as there are already well-established statistical frameworks covering large amounts of economic data, and industrial and trade statistics. Furthermore, there are relevant data centres across the public and private sectors which need to be integrated. There have been early discussions between WG-SF and the Office of Natural Resources and Environmental Policy and Planning (ONEP) on using consistent classifications of economic activity for consistent reporting, however this has not evolved into a comprehensive taxonomy.

So there remain significant taxonomic gaps, which need to be filled out to classify new sources of ESG data, and also to join them in a relational structure with existing sources. This is a rather cutting-edge field and a number of jurisdictions have launched parallel initiatives to design and implement taxonomies. For example, the EU recently adopted its own sustainable finance taxonomy, a sophisticated classification system of sustainable activities based on contributions to climate objectives, as well as wider environmental and social factors.

The following table summarises and compares the key features of the well-known taxonomies. Some of these taxonomies are geared towards particular products (notably ESG bonds including climate, green, or social bonds), and therefore are vital in the classification of the use of proceeds, for example. Others may be wider economic activity classification standards (of which there is a long history) but adapted towards the SDGs, thus recognising the significance of sustainable development (rather than focusing on trade flows or GDP). These are often oriented towards economic entities such as countries or trade blocs (see below China or the EU as examples). Neither direction is mutually exclusive, of course, though to the extent that taxonomies can be harmonised effectively, they can significantly reduce the compliance burden on economic actors.

Sustainable Finance Initiatives for Thailand

KEY FEATURES ²⁰	EU TAXONOMY ²¹	CHINA TAXONOMY ²²	JAPAN TAXONOMY ²³	CBI TAXONOMY ²⁴	IFC CLIMATE TAXONOMY ²⁵
Main objectives	- Climate Mitigation - Climate Adaptation - Water and Marine Protection - Pollution Prevention and Control - Waste and recycling - Ecosystems and Biodiversity	- Climate Mitigation - Water and Marine Protection - Pollution Prevention and Control - Waste and Recycling - Ecosystems and Biodiversity	- Climate Mitigation - Climate Adaptation - Water and Marine Protection - Pollution Prevention and Control - Waste and recycling - Ecosystems and Biodiversity	- Climate Mitigation - Climate Adaptation - Water and Marine Protection - Pollution Prevention and Control - Waste and Recycling - Ecosystems and Biodiversity	- Climate Mitigation - Climate Adaptation
Minimum ESG safeguards	- Y (Do no significant harm to any other environmental objectives) - OECD MNE guidelines, ILO and UN conventions	N	N	N	Y (IFC performance standards)
Transition activities included	Y (but exclude all fossil fuel related activities)	N	N	In progress	N
Classification based on	Statistical classification of economic activities in the European Community (NACE)	Industrial Classification and Codes for National Economic Activities	- Not based on specific industrial classification code - Specific for financial product (Green Bond,	- Not based on specific industrial classification code - Financial product	No reference to industrial classification code

²⁰ This table is developed by the research team to compare some of the key features of some well-known taxonomies.

²¹ European Commission: EU taxonomy for sustainable activities (https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en)

²² Green Finance Platform: People's Bank of China green bond endorsed project catalogue (2020 Edition) (<https://www.greenfinanceplatform.org/policies-and-regulations/peoples-bank-china-green-bond-endorsed-project-catalogue-2020-edition>)

²³ Ministry of the Environment, Japan (http://www.env.go.jp/policy/kinyu/index.html#green_bond)

²⁴ Climate Bonds Initiative: Climate bonds taxonomy (<https://www.climatebonds.net/standard/taxonomy>)

²⁵ International Finance Corporation: IFC's definitions and metrics for climate-related activities (https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/climate+business/resources/ifc-climate-definition-metrics)

Sustainable Finance Initiatives for Thailand

KEY FEATURES ²⁰	EU TAXONOMY ²¹	CHINA TAXONOMY ²²	JAPAN TAXONOMY ²³	CBI TAXONOMY ²⁴	IFC CLIMATE TAXONOMY ²⁵
		Specific for financial product (Green Credit, Green Bond)	Green Loan, and Sustainability-Linked Loan)	Specific for financial product (Climate Bond)	Tracking climate-related investment and advisory projects
Performance criteria / thresholds	Y (Technical standards accompanied)	N	N	Y (Technical screening criteria)	N
Issuing agency & Applicability	- EU - Mandatory	- CBRC for green credit - PBOC for green bond - Mandatory	- Ministry of Environment - Non-legal binding guideline	- Climate Bonds Initiative (NGO) - Market-led standards	IFC Climate definition (for their own climate activities)
Mandatory Users	Financial market institutions within the EU	Financial institutions	Issuers	Climate Bond certified issuers/ Verifiers/	IFC and its clients
Consideration of the use in practice	- Using the industrial/statistical classification standards would help the users (financial institutions, investors) to easily integrate into their current information management system. - Since the taxonomy is based on economic activities, green equity is difficult to define (in case the company is doing multi-sector businesses).	Inconsistencies between the two taxonomies create confusion and inconsistent reporting/tracking by financial institutions. China is in the discussion to developing a national taxonomy applicable for all financial products.	Similar to other green bond principles like ICMA, it is quite general.	- Although this is only mandatory for certified climate bonds, the taxonomy (especially their technical screening criteria) can be used as technical reference document for national taxonomy given the complexity and cost incurred in its development. - Alignment with most of the international standards (including MDBs)	Without referring to national industrial/statistical classification, it would be challenging for users to integrate into their existing information management and reporting system.

Key Considerations

Sustainable versus green versus climate finance taxonomy?

This KSI is being prepared in the context of the design of an overarching sustainable finance framework, so the assumption is that a holistic sustainable finance taxonomy is the goal. This report is giving the term sustainable finance a relatively broad definition in line with the IFC approach. It assumes sustainable development includes the wider ESG criteria such as economic development and social justice criteria covered by many of the SDGs. This is not necessarily the approach undertaken by other jurisdictions, where sustainability is conflated with 'green', and largely limited to environmental concerns. Others are even more focused, for example on climate change mitigation and adaptation specifically.

The advantage of limiting the scope of the taxonomy is relative simplicity and speed of development. Some experts have made the argument that trying to build an overarching taxonomy will increase the risks of implementation failure. On the other hand, a framework which does not adequately consider other environmental or social aspects may be counterproductive. It is important that Thailand clearly describes what it hopes to achieve with the taxonomy, which will help crystallise the best options.

Taxonomies or definitions (henceforth "taxonomies") can cover a diverse range of environmental objectives, from climate mitigation to a broader set of environmental objectives (adaptation, water, circular economy, pollution, biodiversity...), and can include social and governance objectives (or not do so).²⁶

Compatibility with international financial centres

Since Thailand does not operate in a vacuum, it is important that a developed taxonomy works for Thailand, while being relatively compatible with major international standards. Otherwise, Thailand may be at a competitive disadvantage in attracting foreign financial flows. So, a balance must be struck between the development of a customised taxonomy which is tailored to the precise needs of the nation, versus the wholesale adoption of a popular global standard. The latter may facilitate flows of international capital towards Thailand as it potentially lowers the costs of doing business for the foreign party, but only if it can be cost-effectively implemented and adopted by the Thai financial institutions and corporations. It is important to note Thailand's position as a member of ASEAN in this respect, as the ASEAN sustainable finance taskforce is currently preparing a study on green taxonomies that may be instrumental in informing the optimal direction for Thailand.

A taxonomy harmonised with others in major capital markets will support inter-market capital flows – a critical factor for countries seeking access to the growing international pool of green capital to complement local sources.²⁷

²⁶ OECD: Developing Sustainable Finance Definitions and Taxonomies (<https://www.oecd-ilibrary.org/sites/134a2dbe-en/index.html?itemId=/content/publication/134a2dbe-en>)

²⁷ World Bank Group: Developing a National Green Taxonomy: A World Bank Guide (<https://documents1.worldbank.org/curated/en/953011593410423487/pdf/Developing-a-National-Green-Taxonomy-A-World-Bank-Guide.pdf>)

Applicability for SMEs

A highly relevant factor in the design and implementation of a suitable taxonomy for Thailand will be its effect on access to finance for SMEs and other underserved cohorts such as rural and agribusinesses, as well as smaller financial institutions. Expanding access to finance is a key economic goal for Thailand, and SMEs represent a large proportion of economic activity and employment creation. Also, they are less experienced and prepared for the impact of tighter regulation and reporting than corporates or their SME equivalents in developed markets, and also have less depth in the business advisory and consulting market to help them adapt. It will be important that any taxonomy does not create unreasonable extra costs for SMEs or further challenges in accessing finance. A factor to consider could be the allocation of additional resources earmarked for SMEs or smaller financial institutions, to ease the stress and costs of adaptation.

Recommended Actions

ACTION	DESCRIPTION	HORIZON
Establish taxonomy working group and undertake stakeholder analysis	It may be necessary in the short-term to create a specialist working group focused on the topic, even if only to monitor developments in the taxonomy arena internationally, and to study the universe of options more carefully. It will be important to define and consult the views and perspectives of target users of the taxonomy, including domestic and international investors and financial institutions, retail and institutional consumers of financial services, and policymakers.	Short-term
Review strategic options	A key goal of the specialist working group may be to lay out a suite of strategic options, along with relative pros and cons, in a policy paper for consideration by the Three Regulators Steering Committee.	Short-term
Develop taxonomy mission and vision	Based on the determination of the preferred option by the Three Regulators Committee, the mission and vision for the taxonomy can be crystallised.	Short-term
Develop implementation or project plan	The definition of the mission, vision, and Key Strategic Objectives of the taxonomy will allow the working group to build up the implementation or project plan, or ensure that existing workstreams include tasks and activities geared towards the realisation of the taxonomy.	Medium-term
Review results	At regular points, practical challenges with the potential implementation of the taxonomy should be addressed and the design refined if necessary. It is anticipated that the taxonomy will naturally evolve over time.	Long-term

5.2. KSI2: Improving the Data Environment

Rationale

Asset managers, investors, and lenders need data to make rational decisions on the allocation of assets towards sustainable development. In this respect, the challenge of enriching the data environment for sustainable finance covers two key aspects. The first is the framing of the data environment in terms of taxonomy (addressed in KSI1), data reporting standards and protocols, and the approach to data availability and dissemination. The second aspect is the culture and practice of ESG reporting in terms of the reliability and quality of data.

In addition, regulators will need data to assess how ESG risks (including climate-related physical and transition risks²⁸) in the economy affect financial stability.

This means that it is not only essential to develop regulatory policy in relation to ESG data reporting, but also to ensure that it is implemented effectively through providing effective guidance and capacity building to financial institutions and their clients.

KEY DRIVERS

Necessary for effective investment identification

Essential for the pricing of assets

Vital for Monitoring, Reporting, and Verification

Critical for developing incentives

Instrumental for innovative product development

Sustainable Finance Ecosystem

The implementation of KSI2: Improving the Data Environment contributes to the development of the Sustainable Finance Ecosystem in the following ways:

- It will encourage fundraisers to continually improve the quantity and quality of ESG-related data they produce (as data reporters), and to understand how to develop innovative products aligning with targeted ESG impact sectors. An improved data environment will result in a continually improved pricing of assets, which adds real value to investors and lenders (as data users). This facilitates both a **“Strong pipeline of ESG fundraisers”** ● and a **“Deep pool of ESG investors”** ●. In a virtuous circle, the latter will also be well-informed and will be encouraged into the market by deeper levels of confidence and trust in the ESG practices of fundraisers.
- Without an improved data, it is impossible to create a **“Strong awareness of ESG by different stakeholders”** ● and build **“Robust Mechanisms for ESG Verification”** ●. Furthermore, ESG verification is also essential in the development of the new products and markets anticipated in the desired ecosystem.

²⁸ Physical risks arise from the impact of extreme climatic events as well as environmental incidents while transition risks arise from human efforts to address environmental and climate challenges, including changes in public policies, technology breakthroughs, shifts in investors or public sentiments and disruptive business model innovations. See details at: https://www.ngfs.net/sites/default/files/medias/documents/overview_of_environmental_risk_analysis_by_financial_institutions.pdf

- The data environment is also critical to creating “**Strong awareness of ESG by different stakeholders**” ● by providing economic actors and policymakers with robust information on which to base decisions and assess performance.

Current Status

The Network of Central Banks and Supervisors for the Greening of the Financial System (NGFS) has included “Bridging the data gap” and “Achieving robust and internationally consistent climate and environment-related disclosure” as part of their suite of six key recommendations made in their landmark report “A call for action: Climate change as a source of financial risk” published in 2019. Addressing these two imperatives in a holistic way enables Thailand to join up the needs and concerns of data sources with those of data users.

Developing a rich data environment encourages the flourishing of new products and markets which meet the sustainability criteria of a wider and more diverse range of investors and lenders. The quality, depth, immediacy, and price of sustainable finance data will be a key competitive advantage for Thailand competing against other sustainable finance centres. Currently it is acknowledged that the costs of obtaining robust ESG data on investments in Thailand is relatively expensive.

Another aspect of the data environment is the measurement and modelling of the risks to financial institutions (and therefore financial stability) presented by the physical and transition risks of climate change specifically (though other aspects of ESG also present strategic risks). Scenario analysis and stress testing of portfolios is also a catalyst for financial institutions to engage in meaningful changes to their asset allocation. Notably, this is one of the advantages stressed by the Task Force on Climate-related Financial Disclosures (TCFD)’s approach to disclosure and reporting.

In Thailand, there are several ongoing initiatives related to the development of a rich, secure, timely, and reliable data ecosystem for sustainable finance. Publicly-listed companies including financial institutions have been encouraged and trained to disclose both financial and non-financial information (mainly in line with the Global Reporting Initiative (GRI) standards) under the leadership of SEC and SET, which enables a number of leading Thai firms to be included in the Dow Jones Sustainability Indices (DJSI). Most recently, the SEC issued new disclosure requirements to enhance ESG information and include additional topics including human rights and carbon emissions called “One Report”, which will apply to the report as of 31 December 2021 onwards. The SET now also promotes the ESG data of the Thai listed companies, including sustainability assessment results and a list of sustainable stocks, through the launch of settrade.com.²⁹ Naturally all three regulators are collecting and analysing data in connection with the financial system, particularly as it pertains to their duty to maintain financial stability and support economic development. However, there is a need (and this is the opportunity) to integrate ESG data into their regular reporting, much of which is qualitative at this stage.

In line with KSI1, there are tremendous potential advantages in selecting a reporting standard which is compatible with the global norms. Indeed, the link between taxonomy and reporting standard is direct and explicit. Moving towards the adoption of an international standard will enable Thailand to become a globally competitive nation in the field of sustainable finance.

Regrettably, this task is profoundly complicated by the plethora of parallel initiatives or bodies such as TCFD, GRI, Sustainability Accounting Standards Board (SASB), the Climate Disclosure Standards Board (CDSB), and many others. There are grounds for optimism in terms of alignment, however, given the recent initiative from the International Business Council in identifying areas of harmony between several of the leading standards.³⁰

²⁹ For further details on ESG information on Settrade.com: <https://www.settrade.com/settrade/esg-information?select=all>

³⁰ World Economic Forum: Toward Common Metrics and Consistent Reporting of Sustainable Value Creation (<https://www.weforum.org/whitepapers/toward-common-metrics-and-consistent-reporting-of-sustainable-value-creation>)

Sustainable Finance Initiatives for Thailand

The Climate Disclosure Project is leading the collaborative initiative to develop a taxonomy which overlaps the key standard setters.

*“What we seek is a general framework for companies to demonstrate their long-term sustainability; a framework that integrates financial metrics along with relevant non-financial criteria such as ESG considerations, gender equality, compensation practices, supply chain management, and other activities...” - Brian Moynihan, Chairman and CEO
Bank of America*

Given the lack of a consistent global direction, it is suggested that Thailand proceed with developing its ESG data environment on a tactical basis. The existence of parallel initiatives is not necessarily a drawback if these are carefully coordinated and compatible. Data is extremely portable, so consideration of the integration of datasets in the future should be considered inevitable. Circling back, the development of a national sustainable finance taxonomy will be critical for ensuring that independent databases can exchange information with each other quickly and easily. The economics of data should also be considered to ensure that the data is made available in a cost-effective manner. Finally, as always, it will be necessary to ensure that SMEs are brought into the reporting and data framework in a way that is suitable to their specific business challenges compared to larger corporates.

Key Considerations

Which reporting standard is right for Thailand?

As discussed above, there are many parallel initiatives to develop ESG, green, or climate-related reporting frameworks around the world. However, the two with the widest scope and greatest traction appear to be TCFD and GRI. SASB, CDSB, and the International Integrated Reporting Council (IIRC) are also well-regarded standards.

This illustrates the dilemma facing policymakers. While on the face of it there is much overlap, in essence the standards were developed to serve distinct purposes and audiences. This is why the strategic foundations of Thailand's sustainable finance framework are important, as the optimal reporting and disclosure standard will reflect those strategic goals.

It is notable that under the auspices of the ESG Steering Committee appointed by the SEC, SET, the Thai Listed Companies Association, and the Association of Investment Management Companies will be conducting a pilot project to develop ESG reporting templates and guidance. The aim will be to develop tailored templates and guidance that reflect specific industry risks as well as general ones.

Task Force on Climate-related Financial Disclosures (TCFD)

The TCFD was established by the Financial Stability Board to develop recommendations for more effective climate-related disclosures. They describe their aim as to promote more informed investment, credit, and insurance underwriting decisions, particularly in relation to concentrations of carbon-related assets in the financial sector, and its climate-related risk exposure.

The TCFD might argue that its strength lies in its focus on climate-related risk, and in the context of a sustainable finance framework, the TCFD standards are more clearly aligned to the needs of the financial sector such as investors, lenders, and insurance underwriters (which the TCFD refer to as “primary users”).

In addition, the TCFD encourages the disclosure of an organisation's resilience to climate-related risks, rather than just reporting on impact, which is a double-edged approach to adjusting asset allocation. By extension, the TCFD also strongly encourages climate-related scenario analysis and sees this as a key differentiator of its approach.

What data points are available?

The development of a rich data environment means filling gaps, but also the creative use of existing sources. There are many ratings agencies that are competing for clients by making the best use of public domain or proprietary information to verify the ESG credentials of investments. They may provide some inspiration to the Thai financial sector on the variety of sources they could consider in designing reporting and disclosure frameworks. An example below is an extract from the Arabesque (www.arabesque.com) S-Ray methodology.

Environmental	
Emissions	The contribution of business activities to the emission of GHG and other air pollutants. Inputs into this feature include emissions data as well as reduction initiatives, objectives, policies and monitoring.
Environmental Stewardship	The impact of business activities on biodiversity and animal welfare. Inputs into this feature include the use and regulation of animal products/testing alongside biodiversity impact initiatives and targets such as Forest Stewardship etc.
Resource Use	The efficient use of energy and other natural resources including land and materials. Inputs into this feature include energy use/efficiency and land use reduction initiatives, recycled raw materials, toxic chemicals reduction and resource efficiency policies as well as targets and monitoring.
Environmental Solutions	The environmental impact of products and services and the contribution towards sustainable consumerism. This feature includes inputs including, but are not limited to, the development of hybrid vehicles, smart water solutions and sustainable building products as well as offering environmental and renewable/clean energy products. Responsible asset management, the total supply of renewable energy and environmental products targets are also included.
Waste	The generation of waste and other hazardous output as part of business activities. This includes inputs covering hazardous and general waste generation and reduction policies, recycling practices and oil spill disclosure.
Water	The efficient and responsible use of water throughout company operations, covering water pollution, recycling initiatives and water withdrawal.
Environmental Management	The mechanisms and policies employed to manage the overall environmental performance of the business. Inputs to this feature relate to environmental lawsuits, investments into resource efficiency and environmental impact reduction as well as the environmental management system of the company.

Social	
Diversity	The representation of and equal opportunity for women and minorities in the workforce and on the board. To calculate board and employee diversity, discrimination lawsuits and commitment to supplier diversity among other inputs are used.
Occupational Health and Safety	The workplace-related health and safety performance. This includes inputs such as the disclosure of accident rates and workplace injuries, employees' health and safety training and certification, policies/procedures and targets.
Training and Development	The opportunities and programmes in place to enable and support learning across employees and the supply chain. Considering employees' training hours, costs, and policies as well as the monitoring and targeting of these.
Product Access	Providing access to products and/or services for disadvantaged communities. Product access is composed of the access to finance, medicine, education, food and affordable housing programmes.
Community Relations	The level of community involvement and public trust. Inputs include customer satisfaction and community relations policies, targets and the monitoring of these as well as a disclosure of employees' volunteering hours.
Product Quality and Safety	The quality and safety of products and services and level of customer satisfaction. This feature is composed of lawsuits, policies, targets and monitoring relating to the product quality management as well as consumer satisfaction and others.
Human Rights	Adherence to and promotion of human rights throughout all business activities, including the supply chain. Inputs include suppliers' human rights consideration, employee human rights training and policy as well as targets and monitoring of these.
Labour Rights	Compliance with internationally recognised labour standards, both in-house and across the supply chain. This includes the Freedom of Association, Supplier Code Audit and child labour, forced labour, and labour rights policies.
Compensation	The fair and equal compensation of staffs and board members. Judged by average salaries and benefits, board members' compensation, pension funding among many more.
Employment Quality	The working conditions and employee satisfaction. Accounting for employee turnover, work-life balance policy and worktime flexibility, as well as several other inputs.

Governance	
Business Ethics	Fair business practices as it relates to issues such as corruption, political contributions and anti-trust. Typical inputs include lawsuits relating to these issues and policies in place to monitor and reduce their impact.
Corporate Governance	The procedures and mechanisms in place that ensure proper long-term control and management of the corporation. The feature inputs relate to the board and committee as well as policies and targets surrounding governance issues like shareholder rights, insider trading and many other common problems.

Mandatory, voluntary, or explanatory?

Regulators around the world are taking different approaches to encouraging diligent ESG reporting and disclosure. Some can lean on market discipline and the demands of local investors and asset managers to drive compliance, and therefore a lighter-touch or voluntary approach might be optimal in the initial phases. This is especially the case where entities may be best placed to navigate the changing universe of ESG compliance standards. Regulators can support by advocating industry-led or non-binding disclosure guidelines, for example.

A mandatory approach might provide details on a specific list of data points, both quantitative and qualitative, that must be disclosed. A proportionate “hybrid” compromise might involve having a more comprehensive catalogue of potential data points, only a selection of which are mandatory. In combination, regulators can exercise judgement in the assessment of disclosures and request additional data from specific market participants where they believe there is a public interest, or probe into the absence and/or quality of data. In addition, the materiality of the data gaps can be factored in, in terms of the relative size of the economic actor(s) (e.g., proportionate treatment of SMEs versus major corporates), the scope and depth of the data gap, and the potential ESG impact that is not being disclosed. This risk-based audit style approach avoids the impact of unforeseen compliance burdens mandated through compulsion, while also ensuring sufficient diligence in reporting. This can be executed in a consultative rather than adversarial way that helps build institutional capacity.

Assessment of climate and environmental related risks and opportunities - role of scenario analysis and stress testing

One of the important applications of an improved data environment will be the facilitation of scenario analysis and stress testing – set of tools to assess climate-related risks and opportunities (physical asset level data, physical and transition risk data or financial assets data) given climate-related risks are widely acknowledged as a source of financial risk. As mentioned above, this is emphasised at the financial institution-level by TCFD, and this is replicated at the regulator-level through NGFS Recommendation no.1, which calls on financial regulators to integrate climate-related risks into micro-supervision and financial stability monitoring through two main aspects:³¹

³¹ Network for Greening the Financial System:

A call for action: Climate change as a source of financial risk (https://www.banque-france.fr/sites/default/files/media/2019/04/17/ngfs_first_comprehensive_report_-_17042019_o.pdf)

1) Assessing climate-related financial risks in the financial system by:

- mapping physical and transition risk transmission channels within the financial system and adopting key risk indicators to monitor these risks;
- conducting quantitative climate-related risk analysis to size the risks across the financial system, using a consistent and comparable set of data-driven scenarios encompassing a range of different plausible future states of the world;
- considering how the physical and transition impact of climate change can be included in macroeconomic forecasting and financial stability monitoring

2) Integrating climate-related risks into prudential supervision, including:

- engaging with financial firms to (i) to ensure that climate-related risks are understood and discussed at board level, considered in risk management and investment decisions and embedded into firms' strategy; (ii) to ensure the identification, analysis, and, as applicable, management and reporting of climate-related financial risks
- setting supervisory expectations to provide guidance to financial firms, as understanding evolves

So, in addition to strengthening the data environment and analytical tools at the level of individual financial institutions, perhaps in line with TCFD or a similarly evolving standard, it will also be necessary to emphasise the first aspect. This means that policymakers will need to aggregate and model data to assess financial stability risks to the wider system. It should be notable in subsequent KSIs how this meta-level data processing will not only affect prudential policymaking, but also sensitise decision makers in financial institutions as to the importance of considering physical and transitions risks within their specific business and operating models.

Recommended Actions

ACTION	DESCRIPTION	HORIZON
Data gap analysis	In line with the NGFS recommendations, it is recommended that Thailand conducts an in-depth analysis of ESG data and reporting gaps. This will likely involve the views of the financial regulators, but also users of data such as asset managers, investors, lenders, and data vendors (e.g. index providers and ratings agencies) as well as the financial institutions and corporate entities, and the professional services firms that will be required to produce the data. It may also include other government agencies that collect, analyse, and disseminate different types of environmental and social data, in particular.	Short-term
Determine reporting framework options and develop related tools and guidance	The data gap analysis will help determine where Thailand can develop its current framework to enhance compatibility. This will also involve monitoring the evolution of global ESG reporting standards (as discussed above). In the event that a robust global consensus emerges about reporting standards, it will become	Medium-term

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	necessary to develop tools and practical guidance to assist financial sector alignment.	
Review data reporting protocols	Develop strategic options for enhancing the ease of digital reporting, particularly the harmony between machine- and human readable formats, and the portability and accessibility of data.	Medium-term
Agree on approach to reporting compliance	In consultation with stakeholders, it will be necessary to agree the optimal approach to compliance, and whether this should be mandatory (and if so, which aspects), voluntary, or a hybrid.	Medium-term
Scenario analysis and stress testing	Integrating climate-related risks into scenario analysis and stress testing is a significant step towards assessing the potential impacts of climate-related and ESG risks in organisations. Investors will understand how the organisations are positioning themselves in light of these risks and opportunities, which will help them make informed investment decisions. Potentially the BOT can lead by example and develop the requisite intellectual capital by undertaking a sector-wide stress testing and scenario analysis exercise, before rolling out mandatory modelling at the financial institution-level. Since other financial sub-sectors are at different points in terms of their ESG data collection, collation, and analysis, this comprehensive exercise may take some time to fully roll-out.	Long-term

5.3. KSI3: Implementing Effective Incentives

Rationale

In combination with a well-designed taxonomy and a rich data environment, the relative sustainability performance of different economic activities and actors can be quantified more precisely. While the qualitative data reporting measures established by Thailand so far are very important – quantitative data is also required to convince stakeholders that the process is transparent and consistent.

This will support Thailand's ongoing development of the incentive structure for sustainable finance. The Implementing Effective Incentives KSI will facilitate and promote policies that incentivise financial flows towards sustainable development. These incentives can include fiscal and prudential policies in the main, but non-financial approaches should also be considered where viable. The objective is to stimulate demand for and particularly to increase the supply of sustainable financial assets by enhancing the risk-adjusted return of these assets against competing asset classes.

KEY DRIVERS

Critical to adjusting investment assessment

Instrumental in rewarding sustainable investment

Vital for encouraging supply of sustainable assets

Essential in reducing risk of sustainable investment

Key to developing investor appetite for sustainable assets

Sustainable Finance Ecosystem

The implementation of KSI3: Implementing Effective Incentives contributes to the development of the Sustainable Finance Ecosystem in the following ways:

- It encourages a **“Strong pipeline of ESG fundraisers”** ● by improving the risk/ reward profile of sustainable development compared to other asset classes. From the return perspective, sustainable fundraisers may get an improved return through tax breaks in particular.
- From the risk perspective, incentives also contribute to a **“Deep pool of ESG investors”** ●. Instruments such as guarantees, sub-ordinated debt, and/ or equity investment underpinned by the state can radically change the risk profile of potential investment or loan.

Current Status

Incentives are important because economic activity – even of relatively small firms or by individuals – is always a trade-off of values. Almost all firms engage in a range of sustainable and (relatively at least) unsustainable activities. The foundation of this KSI lies in the acceptance that some unsustainable activities (notably but not solely resource extraction) have been benefitting from somewhat of a ‘free ride’ in terms of their cost of capital. They have benefitted from government environmental and social remediation programmes that often directly address the damage that they cause. The economy cannot do without these activities, but it is likely

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they would moderate considerably and/or substantially change the way they operate were they to experience the full economic costs. Certainly, investors and financial institutions would be sure to carefully examine their approach to sustainability when allocating investments, and firms would be more careful when investing in new projects. To some extent, this is about giving ESG disclosure and reporting real “teeth”.

A tangential but equally important issue is that some firms or sectors (who may be somewhat blameless) and their financiers may be severely affected by the impact of climate change in particular. For example, industry, agriculture, or tourism in flood- or storm prone areas might be exposed to “physical” risks. There is also an additional danger for firms or sectors in case radical changes in policy, economic environment, or consumer behaviour resulting from the “transition” to a lower carbon economy or higher standard of ESG compliance lead to the increasing problem of “stranded assets”. This latter scenario particularly applies to sectors that rely heavily on GHG emissions to support economic activity. It is notable that the TCFD approach to compliance and disclosure mentioned in KSI2 explicitly encourages financial institutions to engage in scenario analysis and stress testing to measure the threat of “physical and transition” risks to their portfolios.

In terms of financial incentives, FPO is committed to playing a supporting role in designing the necessary economic mechanisms in line with the strategic direction laid down in the Thailand Climate Change Master Plan 2015 – 2050. In terms of non-financial incentives, the BOT works closely with the SEC and SET to enhance harmonised sustainability disclosure standards across the financial sector. Though it is noted that currently there are no specific disclosure requirements with regards to environment, climate, and social risk factors. The SEC, in collaboration with the SET, has recently announced the ground-breaking new corporate disclosure template called “One Report”, which will apply to the report as of 31 December 2021 onwards. In the new template, the sustainability disclosures are broadened and deepened to encompass ESG implementation programmes. Capacity building has been provided for listed companies in this regard. Finally, the OIC have rolled out the Own Risk and Solvency Assessment (ORSA) tool which assists insurers in the self-assessment of their risk and solvency positions. This includes the requirement for insurers to conduct scenario analysis and stress testing against economic, market, and environmental risk factors.

Case Study - Sustainable Finance League Tables – Refinitiv

Refinitiv is a leading financial sector market intelligence firm serving more than 40,000 institutions in approximately 190 countries. In July 2020, Refinitiv launched its Sustainable Finance League Tables product, which ranks global investment banks and their capital raising activities based on both product type as well as the sustainability of the underlying client. Refinitiv claims it is the first league table to do so. Pointing to the size of the market, Refinitiv notes that globally nearly USD 200 billion of sustainable bonds were brought to market, USD 79 billion in sustainable loans closed, and USD 10.6 billion of M&A involving sustainable companies completed during the first half of 2020. Interestingly, social bond issuance accounted for one-quarter of total bond issuance as COVID-19 relief and recovery efforts accelerated. In terms of results, HSBC maintains its top ranking for sustainable bond issuance, BNP Paribas is top book runner for sustainable lending, BofA Securities leads equity capital market underwriting, and Goldman Sachs tops advisory rankings.

Key Considerations

What role can fiscal incentives play?

In terms of fiscal policy, there are two main themes. The first is the application of tax incentives to encourage financial institutions to offer and/or invest in green assets. There are numerous examples of this approach

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around the world (see examples below³²). As the FPO has noted, however, the knock-on fiscal impacts of such an approach will need to be carefully modelled. The rules governing and approach to monitoring such incentives will need to be tight to avoid “greenwashing”.

This is not a new idea. For decades, additional taxes have been applied to sectors such as tobacco, alcohol, and gambling, for the purposes of disincentivising their consumption while also subsidising the costs to society (e.g. healthcare). This is an early and indirect example of how sustainable development can be encouraged through fiscal intervention.

France

French banking institutions can benefit from a tax credit for interest-free loans they provide to individuals, up to EUR 30,000, for works for energy conservation. Individuals' eligibility is not subject to a maximum amount of revenues. The amount of the tax credit is equal to the amount of interest not collected. This tax incentive represents a cost amounting to around EURO 900 m.

Netherlands

A tax incentive scheme enables individual investors to invest in green projects that benefit nature and the environment. Individuals who invest in a green fund or save money with financial institutions practising ‘green banking’ receive a lower rate than the market interest rate, however this is compensated by a tax incentive. In return, the banks charge green projects at a lower interest rate.

Poland

The Thermo-Modernisation Fund provides financial support for realisation of thermal modernisation investments. The investor is supported by a premium which can cover up to 20% of a loan taken out for investment realisation. This premium is paid by a state development bank directly to the commercial bank as a credit instalment after the modernisation works are completed.

Sweden

The government appointed a committee looking into possibilities of introducing a tax incentive scheme enabling individual investors to invest into green projects (green saving) that benefit nature and the environment. The idea is to set up a green fund from which loans/credit can be provided for certified green projects. A tax reduction for the investor will be provided. The scheme could be set up within a bank, for example.

What role can non-financial incentives play?

In general, the main non-financial incentives are considered to be a set of minimum requirements for sustainable finance, including long-term sustainable finance strategy and portfolio-level ESG and climate related risk management, as well as increasing the depth, quality, and timeliness of ESG performance reporting. To be supervised by financial regulators, those requirements would naturally put pressure on financial institutions to reorient their activities towards sustainable development. However, it is also necessary to consider “carrot” as well as “stick” (e.g. disincentives such as fines, fees, capital limitations, or other regulatory sanctions). Market participants who demonstrate good practice or improved ESG performance should be lauded, for instances, through league table or other public relations tool. Another potential reward

³² European Banking Federation: Encouraging and Rewarding Sustainability: Accelerating sustainable finance in the banking sector (<https://www.abbl.lu/content/uploads/2019/12/ENCOURAGING-AND-REWARDING-SUSTAINABILITY-Accelerating-sustainable-finance-in-the-banking-sector.pdf>)

could be priority access to international grants or development finance for capacity building, especially in the topic of sustainable finance.

What role can prudential regulation play?

In KSI2, the importance of the stress testing and modelling of physical and transition risks to financial stability at both financial regulator-level and financial institution-level was emphasised. Prudential regulation directly addresses these risks, particularly in the form of capital or solvency requirements and reporting. Where regulators identify unmitigated physical or transition risks either to the system, or to specific institutions, they are likely to mandate remedial action. Therefore, the requirement to model these risks as part of the ESG ecosystem acts a de facto incentive for financial institutions, and indeed the entire financial sector, to move towards a more sustainable model.

In addition, an emerging and exciting area is the application of clever regulatory and supervisory interventions to encourage sustainable finance. This is an area where market participants are advocating quite strenuously. The European Banking Federation recently published a comprehensive paper covering this subject; ‘Encouraging and Rewarding Sustainability: Accelerating sustainable finance in the banking sector’³³. They propose some of the key interventions as follows:

Preferential Treatment of Collateral	Accepting certain sustainable assets as collateral by the European Central Bank, and a more attractive treatment of collateral haircuts for such assets will foster sustainable finance.
Green Loan Securitisation Framework	Generating an attractive structure and size for institutional investors, green securitisation could be one of the most effective potential means to harness small scale developments and act as a multiplier to fund sustainable assets as well as transition efforts.
Sustainable Finance Supporting Factor	Maintaining the link between long term risk considerations and capital, the European Banking Authority (EBA) could explore, using forward looking approaches, preferential capital treatment for certain sustainable assets that show a lower financial risk.

³³ European Banking Federation: Encouraging and Rewarding Sustainability: Accelerating sustainable finance in the banking sector (<https://www.abbl.lu/content/uploads/2019/12/ENCOURAGING-AND-REWARDING-SUSTAINABILITY-Accelerating-sustainable-finance-in-the-banking-sector.pdf>)

Recommended Actions

ACTION	DESCRIPTION	HORIZON
Introduce a set of minimum ESG performance requirements	The banking sector has led by example with their recent adoption of the Sustainable Banking – Responsible Lending Guidelines initiated by the Thai Bankers Association in which ESG risk management is a key focus. This should be considered as mandatory requirements for all financial institutions operating in the Thai market and integrated into the financial regulator's supervision programme. These ESG requirements will increasingly require that institutions measure, monitor, and model the physical and transition risks they are exposed to, through an increasingly rigorous approach to stress testing and scenario analysis.	Short-term
Develop financial institution ESG league table	Explore the potential for developing, either independently or in collaboration with a qualified rating agency or market intelligence partner the potential for developing a financial institution ESG league table (see above example from Refinitiv).	Medium-term
Explore tax incentives	The FPO in cooperation with the WG-SF will explore the possibility of the different approaches to tax incentives for financial institutions, designed to encourage the flow of green finance (see above table).	Medium-term
Develop prudential options	This emerging avenue should be explored fully by the Three Regulators who are ideally placed to investigate feasible options. Indeed, the BOT and the OIC might examine how their respective capital adequacy and solvency regimes might be tweaked in order to support sustainable asset allocation. As far as possible, these policies should be evidence-based, underpinned by the financial sector- and financial institution-level stress testing and scenario analysis of physical and transition risks.	Medium-term

5.4. KSI4: Creating Demand-led Products and Services

Rationale

In theory, the adjustment of incentives towards sustainable development should itself stimulate an increase in sustainable assets. However, it is worth looking at the challenge from a supply and demand perspective to evaluate whether the full suite of policy options has been addressed.

Demand-led products and services will meet the growing needs of sustainable projects in the real economy which will, in turn, create virtuous cycle for the sustainable finance ecosystem. Therefore, in this KSI, the challenge of motivating retail and institutional investors to prefer sustainable financial products and services, and supporting financial institutions in meeting their needs, is tackled. This KSI also brings together and highlights the additional benefits of some the actions identified in earlier KSIs.

It is important to bear in mind that this KSI considers not only balance sheet products, but also insurance and transaction products such as digital finance. It also considers the financial inclusion aspects of sustainable development.

KEY DRIVERS

Vital for achieving sustainable investment goals

Reduces portfolio risks for retail & institutional investors

Underpins future profitability of financial system

Attracts foreign capital flows

Improves financial inclusion

Sustainable Finance Ecosystem

The implementation of KSI4: Creating Demand-led Products and Services contributes to the development of the Sustainable Finance Ecosystem in the following ways:

- Marketing and product development are disciplines whereby suppliers look to successfully connect with customers in their chosen markets. In developing this KSI, the term “demand-led” is emphasised to stress that customer knowledge and understanding will be key to developing products and services which have a ready market, internationally or domestically. Financial services are fundamentally about the mobilisation of capital, reallocating it from those who have a surplus to those that have a deficit. Therefore, both sides of a transaction are essentially meeting a customer need. A strong customer focus is therefore essential in ensuring the “**Strong pipeline of ESG fundraisers**” ● meets a “**Deep pool of ESG investors**” ●
- However, in recognising that products and services should be demand-led, often users may have a need that is yet unidentified. In this case the role of “**Strong awareness of ESG by different stakeholders**” ● becomes instrumental.

Current Status

The importance of considering physical and transition risks to financial stability has already been discussed, but financial stability also requires a financial sector that is self-sustaining and reinvesting in continuous improvement. To reach this state, the sustainable finance sector needs to be demand-led. This KSI focuses on two key aspects of this challenge:

- 1) The need to stimulate underlying demand from financial institutions (and their customers) for sustainable products, and a genuine interest in the different aspects of sustainability, and
- 2) The removal of unnecessary policy or regulatory roadblocks or bottlenecks to the development of new sustainable finance products and services.

Creating Demand-led Products and Services encourages and promotes the research required to understand and assess the market demand and policy challenges for sustainable finance products and services. Market research would need to cover cohorts of both retail and institutional investors, who are balancing different priorities. For retail investors, preferences may extend across a range of SDGs or climate-related criteria, reflecting personal values and experiences. For institutional investors, concerns include maintaining a diverse portfolio of investments, while complying with internal ESG policies and procedures.

Information obtained from this market research forms a pool of data for prospective product and service development. It will be used to formulate customer awareness campaigns to address shortcomings in the public's awareness or understanding of sustainable finance, and also to design policy initiatives to facilitate the development of new products and services. Finally, this information is relevant in assessing how Thailand's national sustainable finance requirements will be met, as well as the existence and size of a possible funding gap over time.³⁴

Currently, markets have led the development of sustainable finance products, information, and technological innovations. Most recently, financial institutions have started to adapt their business models, skills, and incentives to embed sustainability into their core strategies.

TMB (now TMBThanachart), one of Thailand's leading banks, became the first financial institution to issue a USD 60 million green bond in Thailand with IFC as the sole investor in June 2018. Kasikornbank followed and issued a sustainability bond totalling USD 200 million in October and, B Grimm Power issued the first certified climate bond in the market in December.

The SEC has recognised the importance of a stewardship code and launched the Investment Governance Code (I Code) in 2017. I Code contains principles and guidance reflecting internationally accepted standards for responsible investment and effective stewardship for institutional investors. The I Code now has 74 signatories with the total AUM of THB 10.4 trillion. The signatories regulated by the SEC are required to notify their disclosures on I Code implementation to the SEC once a year. In addition, the SEC actively encourages I Code signatories, asset managers especially, to implement the I Code effectively by integrating ESG factors into their investment process and active oversight of companies in their portfolio.

Key Considerations

Making the case for sustainable financial products and services

³⁴ For example, the Standard Chartered Bank Opportunity2030 study estimated USD 58 bn. of potential private sector investment opportunity in Thailand to 2030 related to 3 key SDGs: 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), and 9 (Industry, Innovation and Infrastructure). This raises the question of what the public/private investment opportunity/ challenge for Thailand will be in order to achieve its NDC targets of at least 20% emission reduction from business-as-usual level.

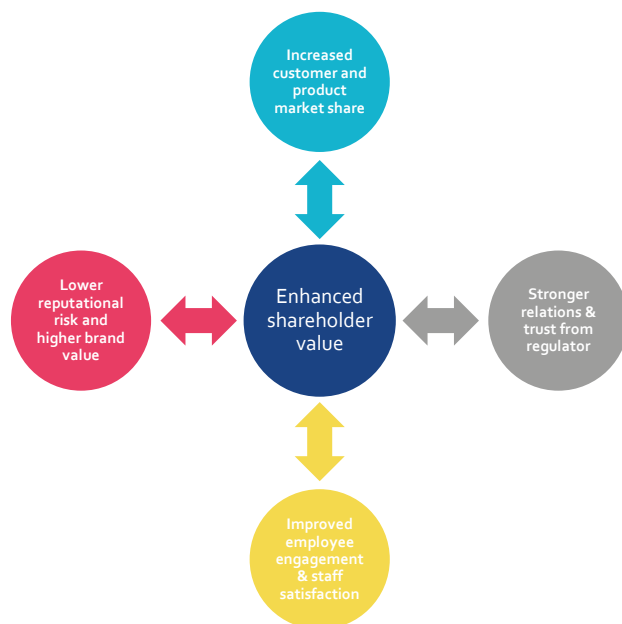
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There remains considerable scope for working with financial institutions to help them understand the rewards of moving their product suite in the direction of sustainability. This would be in parallel with initiatives to help educate their customers on the advantages of preferring sustainable products. In the more developed financial markets, financial institutions are seeing the business case for sustainable products and services underpinned by a range of tangible benefits (see figure below).

Ideally in the sustainable financial system, no longer will shareholder value be simply viewed as short-term financial returns on unsustainable risk positions. Rather it will be a concept reflecting the positive outcomes for risk capital (in the form of share ownership) through adopting a sustainable model. In the future, shareholders will reward management that recognises the following as key benefits of sustainable finance in addition to the financial returns:

- Increased customer and product market share;
- Stronger relations & trust from regulators;
- Improved employee engagement & staff satisfaction; and
- Lower reputational risk and higher brand value.

These are the features that will maintain and increase enterprise value long after short-term financial projections; and should be viewed as part of a legacy by a CEO and their executive team.



Encouraging diversity and innovation in sustainable finance product development

Indeed, it is not necessary or even perhaps desirable for all investors to share a single vision of the perfect mix of sustainable investments. For individuals, priorities may range across a range of SDGs or climate-related criteria to reflect their personal values and experience. For example, some retail investors may have a particular interest in biodiversity, or marine ecosystems, or renewable energy, or rural development. Asset managers should be able to develop investment products and services which meet customer expectations. A diversity of products will also prompt international investors' interest as well as improving diversification in product and asset classes contributing to financial stability. Advancements in digital finance will no doubt play a role in improving channel efficiency, data capture and reporting, and extending these products to new underserved customers.

Blue Finance for Thailand's Marine Ecosystems

The huge coastal regions of Thailand and the adjacent marine ecosystems are of profound importance to the economy (including fishing and aquaculture, marine transport, and tourism), as well as the country's biodiversity and ecological legacy. Developing products which channel finance to economic actors who can add value to or reduce impact on marine ecosystems could resonate with the Thai retail and institutional investors. This could involve a voluntary but discrete set of ESG criteria for firms that wish to gain certification in this theme, and adjustments of incentives to reward all players in the process of financial intermediation. There are emerging frameworks such as the European Commission's Sustainable Blue Economy Finance Principles and the WWF's Blue Finance Principles, and this may represent an opportunity for Thailand to develop a competitive advantage in a rapidly developing market.

Beware of greenwashing in the green and sustainable bond market

In a global context, as the demand for sustainable financial assets has grown so rapidly, issuers (of green bonds in particular) began to find they were attracting a premium. As might be expected, this has encouraged the entry of new issuers, some of which are felt to be 'ticking boxes' in relation to green bond principles (of which there are several non-mandatory standards), and simply reorganising capital internally with no real shift towards sustainability in the issuer's overall business and operating model. The term 'greenwashing' was termed to describe this phenomenon and has become a point of contention in developed financial markets.

*"We would not buy a green bond from an issuer with a bad ESG score. Of course not."*³⁵
Ulrika Lindén, Head of Fixed Income, Swedbank Robur

Many mainstream international investors and asset managers are threatening to draw a line in the sand, as they are concerned that the market could be undermined by a lack of faith in the principles of the product. They argue that a green bond should not qualify unless the issuer has a holistic approach to ESG. On the other hand, others argue that this prescriptive approach will deter incremental improvements from issuers, and that the market should include options for "light green" as well as "dark green" issuers.

The key point here is that in encouraging financial institutions to issue green assets or raise green finance for clients, the ongoing efforts of the Three Regulators to raise ESG performance and reporting are a vital foundation for product development. Without improving ESG at the corporate level, it is unlikely that Thailand

³⁵ Louise Bowman: ESG: green bonds have a chicken and egg problem (<https://www.euromoney.com/article/b1fxdfs1kpjxl9/esg-green-bonds-have-a-chicken-and-egg-problem>)

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will benefit from the full financial flows it might hope for, regardless of whether a particular issuance complies with green bond principles. A two-pronged approach is required, with financial institutions leading by example and correctly advising their clients on the importance of ESG risk management, and with the Three Regulators continuing to press the agenda regarding compliance.

Recommended Actions

ACTION	DESCRIPTION	HORIZON
Sustainable finance market research	Design and commission a comprehensive market research exercise to evaluate the size and potential of the sustainable finance market in Thailand, including opportunities for both public and private sectors to fill the SDGs financing gap. Engage and communicate this with financial sector/ investors (especially institutional investors). This will help identify and understand the values and behaviours of consumers (both retail and institutional) in their selection of sustainable products and services. The research will also examine supply-side challenges faced in the sustainable finance market from two perspectives: 1) policy or regulatory barriers to new product development; and 2) gaps in human capital in the financial sector. (see KSI5)	Short-term
Sustainable finance deal pipeline curation	It is obvious that the development of sustainable financial assets is directly correlated with the supply of sustainable projects or business opportunities. The absence or lack of awareness of these opportunities continues to be a stumbling block to the development of sustainable finance in developing financial markets, where investment banking and financial advisory capacity is lower. There could be a role for the Three Regulators to establish, and conduct a due diligence on a deal pipeline to smooth the path for potential investors.	Medium-term
Design and deliver consumer awareness campaign	The Three Regulators could use the findings from the market research exercise to design and deliver a consumer education campaign to raise awareness on sustainable finance savings and investment products, and their benefits. This could be dove-tailed with parallel initiatives to enhance financial inclusion and to encourage long-term financial planning by individuals and households.	Medium-term
Streamline regulatory framework for sustainable finance products and services	While never losing sight of their responsibilities to protect the integrity of the financial system, the Three Regulators will also use the research described above to design policy initiatives to smooth the path for new and innovative sustainable products and services. In the design of the regulatory framework for sustainable finance, the Three Regulators will both unblock unnecessary constraints, but will also push policy measures which actively underpin public confidence in new products and services.	Medium-term

5.5. KSI5: Building Human Capital

Rationale

Ultimately, any transformation in sustainable finance rests on the day-to-day interactions between financial sector professionals and their customers, from the average person on the street to the Chief Financial Officers of leading Thai companies. It also includes relationships within financial institutions and with counterparts in other financial institutions and in the regulatory and supervisory community.

The quality of those interactions lies in the skills and competences of the actors, and also their values and behaviours. These individuals are key in building the practical tools and models necessary to identify and appraise flows of sustainable finance.

This KSI therefore focuses on building those human resources within the financial sector, as well as some of critical pieces of intellectual capital that will also be required.

KEY DRIVERS

Essential for building necessary competences and skills

Necessary for developing required values and behaviours

Vital for attracting and retaining necessary talent

Critical in developing required intellectual capital

Crucial to becoming sustainable finance "centre of excellence"

Sustainable Finance Ecosystem

The implementation of KSI5: Building Human Capital contributes to the development of the Sustainable Finance Ecosystem in the following ways:

- There is a direct and explicit link with the **Highly regarded and talented human capital pool** ●, which is key to ensuring effective ESG product and market development, as well as the parallel risk management competences.
- The development of human capital is connected to the **Strong awareness of ESG by different stakeholder** ● as training and development is key in awareness-raising. Critical here is that training and development is not limited to financial services practitioners, but extending to fundraisers, investors, and policymakers.
- It is the combination of the above ecosystem features which will facilitate the development of a **Deep pool of ESG investors** ● as well as a **“Strong pipeline of ESG investors”** ●.

Current Status

The Three Regulators have been highly active in the field of capacity building in sustainable finance. They rightly see it as their remit to underpin financial stability by fostering the skills, competences, values, and behaviours of their respective regulatory and supervisory purview. There are of course many other essential participants in the development of human capital in sustainable finance, both local and international. These include, for example, the Thai Bankers Association (TBA), and the various financial services academic and training institutes.

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The BOT has been hosting a series of quarterly capacity building workshops and events for stakeholders across the Thai financial sector, covering a range of topics such as the impact of climate risk in infrastructure investment and responsible lending. The BOT has also hosted the Bangkok Sustainable Banking Forum since 2018 to raise awareness, deepen adoption of sustainability practices in the Thai financial industry, and alert the financial industry regarding the imminent ESG threats that would be sources of financial risk. The forums are designed for and targeted to board members and senior management of financial institutions to ensure that policy decisions are reflective of sustainability considerations and that change will be implemented. The BOT has continued its series of quarterly capacity building programmes, working with such stakeholders as the TBA and international financial institutions.

In addition, the SEC in collaboration with SET have several initiatives designed to build capacity among stakeholders in sustainable capital markets. For example, the SEC works with partners (e.g. the Thailand Greenhouse Gas Management Organisation) to organise workshops for listed companies (especially SMEs) on the practical implementation of sustainability and ESG measures into their business and operating model (this includes the application of the UN Impact Measurement and Monitoring framework). Indeed, the SEC plans to develop a manual for listed companies, to assist in embedding SDGs and Impact Measurement and Management (IMM) within existing ESG or CSR practices.

The SEC is also in the process of developing tools (e.g. guidelines and video clips) to help listed companies disclose information in accordance with One Report, human rights, carbon emission information, and the SDG Impact Measurement and Management framework.

Furthermore, the SEC has been actively engaging with potential issuers, underwriters, and investors, through capacity building and seminars to enhance their understanding and awareness of sustainable finance issues and provide a forum discussion on case studies of successful green bond issuance. The SEC has organised three Green Bond Bootcamps in 2019 to develop technical know-how in the process of green bond issuance and understanding green bond taxonomy.

Through a variety of online and offline learning tools and scholarship programs, the SET has been actively promoting sustainable finance among stakeholders in the Thai capital market, including listed companies (e.g. sustainability professionals, investor relations officers, and risk managers), intermediaries (e.g. investment analysts, fund managers, investment consultants), investors (e.g. retail and institutional investors) and others (e.g. financial planners, savers, and press).

The OIC encourages the industry to integrate ESG issues into recruitment and training programmes, through many activities. For example, OIC launched the “OIC for Community” project, which educates policyholders and insurance stakeholders across the country, by raising awareness of risk management and providing a comprehensive understanding of rights and benefits. Moreover, the OIC also launched “Training for the Trainers” programme to educate relevant stakeholders regarding rice and maize insurance (micro insurance products for farmers). The OIC Advanced Insurance Institute (OICAI) also plays an active role in disseminating insurance expertise and standards. In addition, the OICAI works with educational institutions and agencies from Thailand and abroad (e.g. the National Institute of Development Administration, the SEC, and the German Association of Actuaries) to develop and deliver training programmes for insurance agents, actuaries, advisors, planners, and executives. Regarding Corporate Governance, the OIC has issued the Notification of the Insurance Commission Re: Corporate Governance of Life/Non-life Insurance Companies, B.E. 2562, for any company’s committees to have processes or approaches in governing business operations with stability, transparency, and responsibility for the insured and stakeholders, which ultimately lead to the company’s sustainability. Additionally, the OIC also has planned to increase the sustainability awareness among insurance companies by giving the Sustainable Insurance Awards for the honour insurers with an outstanding development of sustainability in 2021.

Key Considerations

Sustainable Finance Certification

While there is no substitute for on-the-job learning in banking and finance, vocational qualifications also have an important role in professional development. These are vital in establishing a “common language” between practitioners and in fostering a sense of professional community. A path forward could include the development of a baseline sustainable finance curriculum to be integrated into other financial services professional training, and graduate and post-graduate finance education. Considerations should be given to customising content to different audiences including board-level and senior management, professionals and practitioners, and junior staffs. More importantly, training modules should include raising awareness of ESG and sustainability matters among senior management and employees. The knowledge will set a “tone from the top” and reinforce commitment among CEOs and top management to incorporate ESG considerations into their business strategies, allowing employees to effectively implement the strategies based on a true grasp of the sustainability.

Thailand may consider working in partnership with one of the growing number of vendors of professional qualifications in sustainable finance. Given London’s position as possibly the world’s leading centre of sustainable and green finance, it is no surprise that it is home to two of the more popular courses.

Green and Sustainable Finance Certificate – Chartered Institute for Securities and Investment (UK)

- Green and sustainable finance in the context of retail, commercial and wholesale banking, central and development banks, insurance, and investment sectors
- The science of climate change and the role of the financial system
- Global, international, and national policy, regulatory and industry responses
- Climate-related financial risks, and other environmental and sustainability risks
- Key sustainable finance frameworks /principles
- Supporting customers in their transition to sustainability
- Green and sustainable FinTech
- Ethical dimensions

Certificate in Sustainable Finance – London Institute of Banking and Finance (UK)

- Introduction to the principles of sustainable finance
- Aligning the organisation to the SDGs
- Integrating climate/biodiversity risk into risk management
- The role of ESG in wealth management
- Reporting and disclosures (e.g., TCFD)
- Sustainability leadership and governance
- The role of central banks and regulators
- Designing financial products for ESG

“Values and behaviours” as well as skills and competences

The ethical scandals that occur in global financial circles continue to haunt the sector. It is vital for the reputation of sustainable finance that the values and behaviours of practitioners are of the highest standards. The sector is already seeing some fallout from the greenwashing issue, which as discussed above, represents a point of contention between proponents of sustainable finance.

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However, there are areas of sustainable finance where ethical questions are starker. These include the necessity to promote financial inclusion by not discriminating based on sex, ethnicity, sexual orientation, or political or religious views. However, they also include the need to avoid over-indebtedness and the misselling or over-selling of unnecessary products and services. Interesting recent studies³⁶ suggest that orienting training and certification towards understanding of ethics and how they apply to financial services are more effective than “rules-based” compliance training.

“For banking and finance, this broader scrutiny is particularly acute as one of the lessons learnt from the financial crisis has been that businesses will be judged not only in terms of the products and services they offer, but also the way in which they are provided.” –

Paul Chisnall, Director, Finance & Operations Policy, UK Finance³⁷

Cash-flow versus balance sheet finance

The Thai corporate finance market is rooted in balance sheet lending, essentially based on the quality of a firm’s assets and their debt-to-equity ratios. The Thai bankers are extremely comfortable in this market, and there is significant pure play potential for sustainable finance for firms with strong ESG performance. The Three Regulators are continuing to nudge issuers and borrowers to improve ESG performance and reporting.

However, there remains a significant challenge for relatively “brown” sectors to access the finance required to transition to a greener business and operating model. This will require the financing (equity, bonds, and loans) of specific projects and the ability to assess creditworthiness based on projected cash-flows. While the Thai bankers are developing expertise in the project financing of renewable energy, especially solar and hydro power, there are many other niche areas where specialist expertise might be required including:

- Bioenergy
- Vehicle fleet transition and fuel switching
- Mass transit
- Building energy efficiency

- Tourism and biodiversity
- Sustainable agriculture
- Waste management
- Water management
- Forestry management

Given the relatively smaller depth of the Thai financial sector compared to global international financial centres, it may be difficult for individual banks to organically build the required competence in these specialisms in a similar way to developed markets. It is one thing to have a customised Discounted Cash Flow (DCF) model, but quite another to develop a deep knowledge and trust in the underlying assumptions.

³⁶ Andrew Sutherland: Study finds ethics can be taught – in finance, at least (<https://theconversation.com/study-finds-ethics-can-be-taught-in-finance-at-least-129877>)

³⁷ UK Finance: Ethics in banking and finance (<https://www.ukfinance.org.uk/policy-and-guidance/guidance/ethics-banking-and-finance>)

Recommended Actions

ACTION	DESCRIPTION	HORIZON
Training and development	A logical key step in developing Thailand's human capital in sustainable finance would be the conduct of a thorough Training Needs Analysis, to guide programming for training and development in the future. Ideally it would be conducted in collaboration with partners such as the TBA, the Federation of Thai Capital Markets Organisations (FETCO), economic development agencies, and the various banking and finance training and academic institutes, so they can also use the results to improve their product offering in this space. As noted above, compared to major developed financial centres, Thailand has a relatively under-developed project finance sector. Project finance in particular, has a critical role to play in addressing the physical and transition risks presented by climate change, as well as GHG emissions reduction, and additional training and development in this topic could help fill this gap. The Three Regulators might consider developing a formal programme of training and development in ESG and sustainable finance, perhaps leading to certification standards. Any curriculum developed could be embedded into existing professional orientation, training, and university/postgraduate programmes for financial professionals	Short-term
Development DCF model suite	Of valuable assistance to financial institutions looking to develop their sustainable project finance practices could be a suite of well-designed DCF models (or other models specific to different players in the financial sector) tailored to Thailand and focusing on a range of different projects. These could be expounded with commentary and insight into the key assumptions that need to be considered.	Medium-term
Training in impact measurement	For balance sheet borrowers and pure play investors and lenders, the role of impact measurement will become increasingly important. This is an evolving field; however, the UN Impact Measurement Framework is considered an increasingly popular and robust methodology. Note that the SEC has already made some practical initiatives in this field.	Medium-term

6. Implementing the Initiatives

Since the Initiatives encompass the entire financial sector and is aligned to support Thailand in achieving its SDGs and commitments, they shall directly result in the sustainable transformation of the financial sector, and indirectly support the sustainable transition of the real economy. Such an undertaking will necessitate successful collaboration among and between government agencies, private sector market participants, international partners, as well as the financial sector regulators and members of the WG-SF.

Financial sector regulators must effectively engage with other government agencies in order to enhance the flow of information, ensure the goals of the Initiatives are strategically aligned with Thailand's national goals, facilitate and implement the KSIs, pursuant to the work plan and its timeline. Additionally, implementing the Initiatives will necessitate strong collaboration between the public and private sectors, along with the involvement of international development partners, development finance institutions, and NGOs to mobilise their knowledge, expertise, experiences as well as financial resources towards common goals.

Implementing the Initiatives will also require on-going attention and monitoring to ensure goals and benchmarks are clearly defined, understood, agreed upon, and attained in a timely manner, with the support and cooperation of multi-stakeholder procedures.

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8. Acronyms and Abbreviations

ACMF	ASEAN Capital Markets Forum
ASEAN	Association of South East Asian Nations
BAU	Business as Usual
BOT	Bank of Thailand
CBI	Climate Bonds Initiative
CG Code	Corporate Governance Code
DJSI	Dow Jones Sustainability Index
ESG	Environmental, Social, and Governance
FI	Financial Institution
FPO	Fiscal Policy Office
GHG	Greenhouse Gas
I Code	Investment Governance Code
ICMA	International Capital Markets Association
IFC	International Finance Corporation
IIRC	International Integrated Reporting Council
IMF	International Monetary Fund
KSI	Key Strategic Initiative
MOF	Ministry of Finance
NDCs	Nationally Determined Contributions
NESDP	National Economic and Social Development Plan
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
OIC	Office of Insurance Commission
ONEP	Office of Natural Resources and Environmental Policy and Planning
PM	Prime Minister
PRB	Principles for Responsible Banking
PRI	Principles for Responsible Investment
PSI	Principles for Sustainable Insurance

SBN	Sustainable Banking Network
SDGs	Sustainable Development Goals
SEC	Securities and Exchange Commission Thailand
SEP	Sufficiency Economic Philosophy
SET	Stock Exchange of Thailand
SFI	Specialised Financial Institution
SIF	Sustainable Insurance Forum
SME	Small- and Medium-sized Enterprises
SOE	State-Owned Enterprise
SSE	Sustainable Stock Exchange Initiative
TBA	Thai Bankers' Association
THIS	Thailand Sustainable Investment
UN	United Nations
UNEP	United Nations Environment Programme
UNEPFI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WG-SF	Working Group on Sustainable Finance

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