



KBank's TCFD Report 2022

Task Force on Climate-related
Financial Disclosures



ธนาคารกสิกรไทย
开泰银行 KASIKORNBANK



บริการทุกระดับประทับใจ

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2010	CSR After Process
2012	CSR In Process SD Report
2014	SD Policy ESG Credit Policy
2016	Human Rights Policy Human Rights Due Diligence
2018	Carbon Neutral
2019	Bank of Thailand Responsible Lending Climate-related Scenario Analysis
2020	UN Principles for Responsible Banking Taskforce on Climate-related Financial Disclosure
2021	Net Zero Commitment UN Principles for Responsible Investment
2022	UN Global Compact Partnership for Carbon Accounting Financial



Introduction

The Inter governmental Panel on Climate Change (IPCC) report for 2021 is deemed as a 'Code Red' for the global warming situation, pointing out the seriousness of the matter that may cause economic losses of approximately 10 percent of total economic value within 2050. Emphasis is on Southeast Asia, where economic growth is likely to drop by as much as 20 percent, without any proper resolutions. Meanwhile, the Sixth Assessment Report (AR6) of IPCC states that, in 2021, the global average temperature rose 1.1 °C, which was edging closer to the world's 1.5 °C threshold. This increase has occurred sooner than expected, as it was previously thought that the world's average temperature could reach its peak in 2025. As concerns a study of each country's participation in a Nationally Determined Contribution (NDC) to minimize greenhouse gas (GHG) emissions and its operations related to climate change after 2020, such NDC implementation has been estimated to increase GHG emissions by 10.6 percent by 2030, as compared with the target to reduce emissions by 45 percent in accordance with the world's 1.5 °C goal of the same year.

In addition, a Greenpeace study of seven major Asian cities reveals that climate change will substantially affect the residents and economy of Bangkok, being below sea level that faces a high risk of tidal bore and flood. Economic impacts are estimated at more than USD 512 billion over a 10-year period. Due to more severe natural disasters, governments have to allocate increased budgets for emergency incidents to save and assist the affected people, and to help prevent such disasters. Such budget increases will eventually be large burdens on the overall economy. As a result, financial needs to tackle climate change issues have considerably increased during the transitional period towards achievement of the Net Zero target, and financial support is now a crucial part of the attempts to minimize the adverse impacts of global warming. In the 27th Conference of the Parties of the UNFCCC (COP27), the meeting agreed to set up a Loss and Damage Fund to provide financial assistance for countries damaged by climate disasters, the details of which will be discussed over the next two years.

KBank has recognized this important role and duty, and prepared to team up with our customers and stakeholders to plan for any risks, seek new opportunities arising from climate change and prepare a Transition Plan to Net Zero along with our customers.

Remark: Details of the Task Force on Climate-related Financial Disclosures (TCFD) can be found at KBank's website: <https://www.kasikornbank.com/SiteCollectionDocuments/sustainable-development/pdf/kbank-tcf-d-report2022-en.pdf>



KBank's Net Zero Commitment

1

KBank aims to empower every customer's life and business. We support our customers in the transition to a net zero economy. Sustainability is deeply ingrained in how we serve our customers and manage our operations.

2

We are committed to supporting Thailand and our clients in regional economies on their decarbonization journeys. We will contribute to the global effort to transition to net zero emission by 2050* and will align with the Paris Agreement goals.

3

We are committed to be the leading sustainable bank in Thailand, allocating at least Baht 100 - 200 billion in sustainable financing and investment by 2030 and pioneering green banking products.

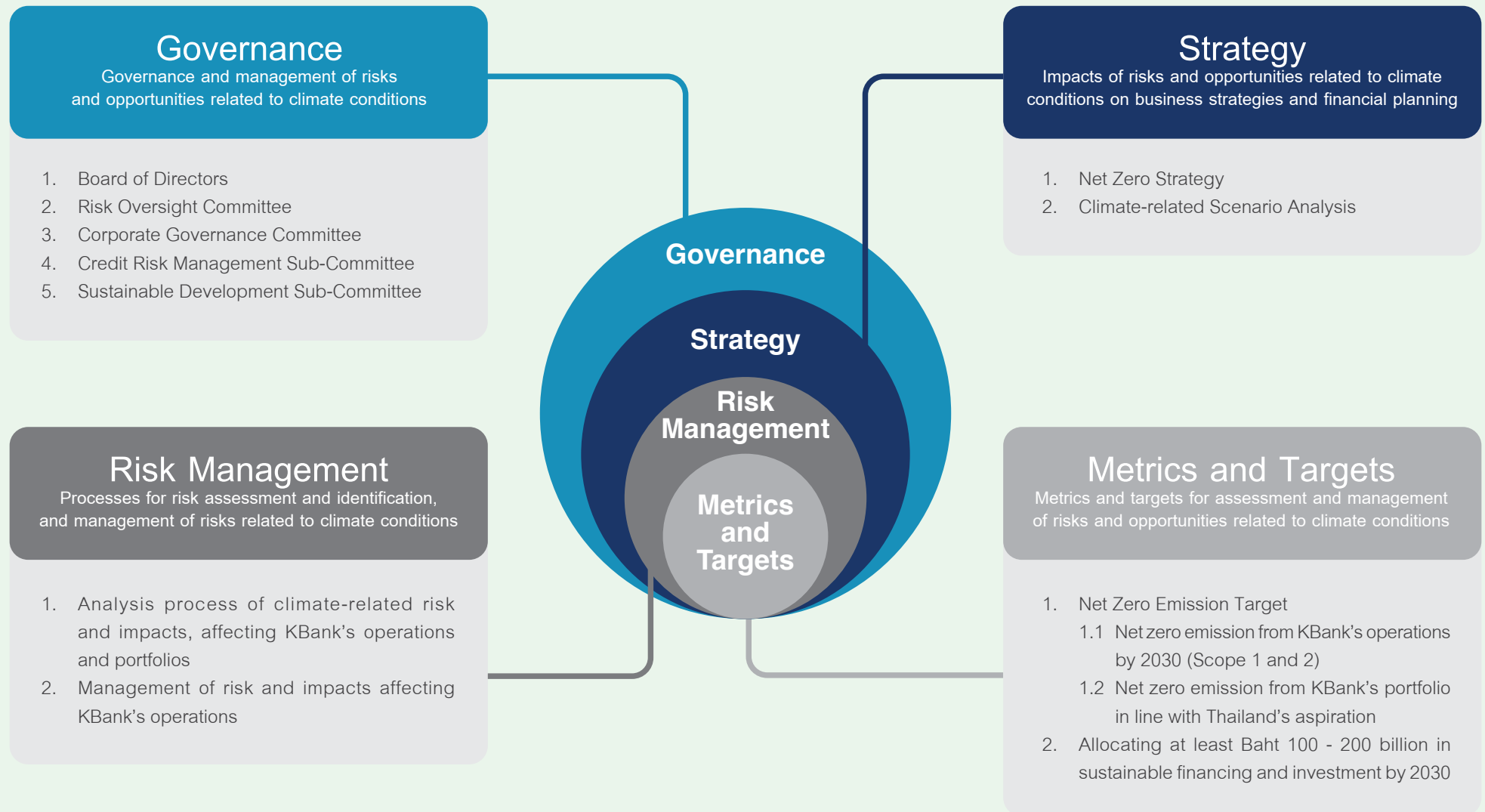
4

We commit to becoming net zero in our own operations (Scope 1 and 2)** by 2030. We commit to achieving net zero in our financed portfolio in line with Thailand's aspirations, accelerating this journey where possible. We will continually assess opportunities to take earlier actions as the technology, regulatory environment and external context evolves.

* Net zero emission by 2050 is the global effort to transition to net zero emission, aligning with the Paris Agreement goals. However, KBank commits to achieving net zero in our financed portfolio in line with Thailand's aspirations, accelerating this journey where possible.

** Scope 1: Direct emissions from the activities of an organization including stationary combustion, fleet vehicles (organization-owned), chemical treatment of wastewater, as well as fugitive and process emissions.
Scope 2: Energy-indirect emissions including an organization's purchased energy such as electricity, heat and steam.

KBank has prepared a report to comply with the Task Force on Climate-related Financial Disclosures (TCFD), consisting of four aspects, as follows:



* More details can be viewed in Task-Force on Climate-related Financial Disclosures (June 2017) and Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures (October 2021)



Governance Structure

Governance

Describe the organization's governance around climate-related risks and opportunities.

Governance Structure

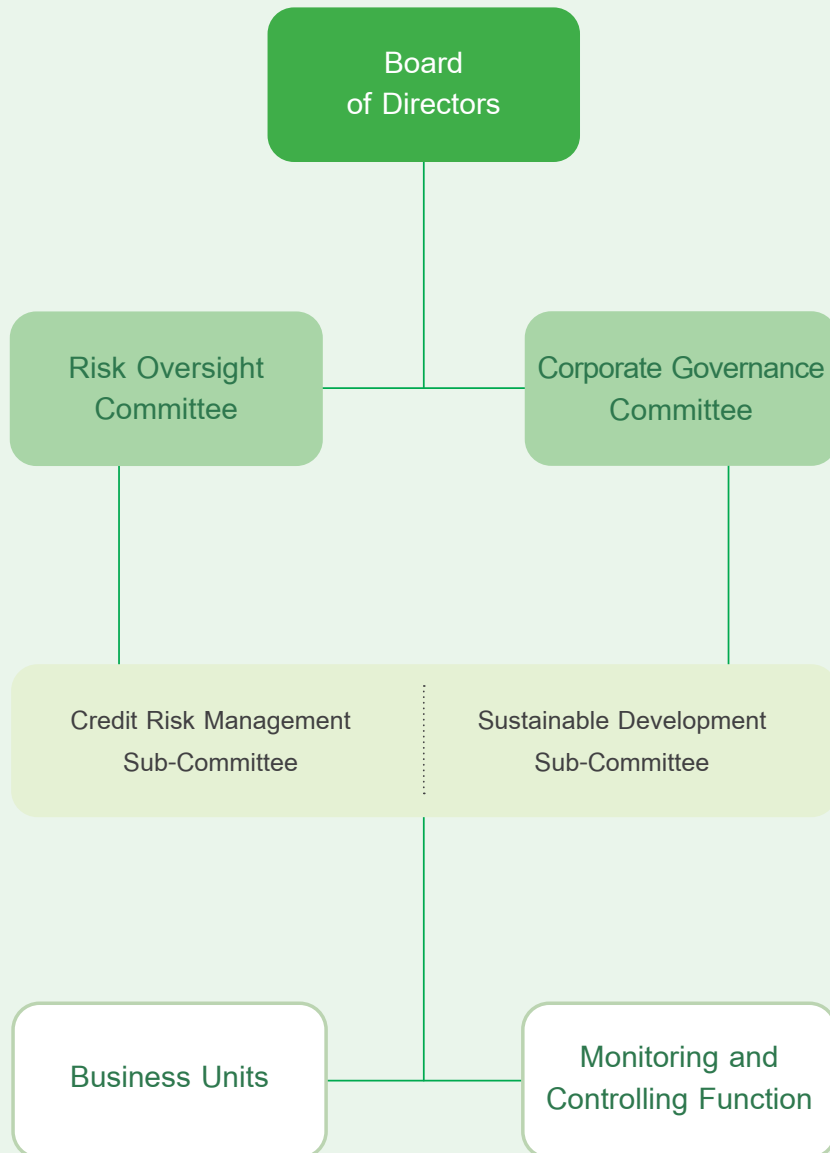
Recommended disclosures

- a. Describe the organization's governance around climate-related risks and opportunities.
- b. Describe management's role in assessing and managing climate-related risks and opportunities.

In our sustainable development structure, KBank's Board of Directors has assigned the Corporate Governance Committee to supervise sustainable development operations; the Committee holds a meeting to determine operational guidelines, monitor and report to the Board of Directors. We established the Sustainable Development Sub-committee, chaired by the Chief Executive Officer, to be responsible for driving environmental, social, and governance operations under the Sustainable

Development Policy framework. Our mission is to establish a Sustainable Development framework and action plan, as well as overseeing, monitoring and assessing sustainable development performance to be in conformity with sustainable development principles, requirements, and both national and international standards.

KBank has established the structure, policies and management related to climate change as part of the sustainability operational processes that manifest Environment, Society and Governance (ESG) responsibility, as follows:



Board of Directors

- Approving risk management policy, frameworks, risk limit and risk appetites

Risk Oversight Committee

- Overseeing and ensuring compliance with consolidated risk management policies and strategies, and acceptable risk appetite
- Assessing risk management policies and strategies to cover all risks including emerging risks

Corporate Governance Committee

- Overseeing, and undertaking sustainable development

Credit Risk Management Sub-Committee

- Determining ESG credit policy and processes, and updating such policy and processes

Sustainable Development Sub-Committee

- Considering and approving sustainable development frameworks and action plans
- Considering and endorsing policies, goals, strategies and targets related to sustainable development performance
- Overseeing and monitoring sustainable development operations
- Considering sustainable development communications both within and outside KBank, and information disclosure in compliance with domestic and global sustainability frameworks and standards

Business Units

- Screening environmental and social risks of projects to be supported
- Ensuring and monitoring projects' compliance with regulations/environmental and social management plan

Monitoring and Controlling Function

- Determining environmental and social management as agreed
- Reporting to Corporate Governance Committee



Board of Directors' roles and responsibilities are to manage KBank's business operations. The Board's decisions are independent, taking into consideration the highest benefit of KBank and stakeholders. Every year, the Board reviews and approves KASIKORNBANK FINANCIAL CONGLOMERATE's strategies, targets, business policies that embrace sustainable development operations. The Board also approves risk management policy and framework, and acceptable risk limits that include risks and opportunities related to the ESG, as well as impacts of climate-related risks, which are subject to annual review. The Board reviews the annual business plans and budgets, and monitors KBank Management's compliance with the established policies, strategies and business plans with effectiveness, in conformity with related laws, regulations and the United Nations' Sustainable Development Goals (SDGs) and Paris Agreement. In addition, the Board has assigned to the Chief Executive Officer the role of Chief Environmental Officer, based on KBank's goal of being an environmental stewardship to create Net Zero society, and setting metrics to measure the sustainability operations from the level of Chief Executive Officer to high-ranking executives and operating officers to ensure that the operations will achieve the set targets.

The Risk Oversight Committee is responsible for providing advice to the Board of Directors with respect to KASIKORNBANK FINANCIAL CONGLOMERATE's risk supervision framework, overseeing high-ranking executives and heads of risk management units to comply with risk management policies and strategies, and reviewing the adequacy of risk management policies and strategies to ensure that they encompass all types of risks and emerging risks, as well as ESG risks and climate-related risks. The Risk Oversight Committee meets at least once a quarter and reports to the Board of Directors.

The Corporate Governance Committee oversees sustainable development operations in all aspects of environment, society and governance, and reviews and advises for appropriate improvements for reporting to the Board of Directors. The Committee also provides recommendations with respect of operations towards net zero emission and consideration of projects related to the environment and society to ensure KBank's proper management of environmental and social risks, and monitors the progress of the projects on a regular basis. The Corporate Governance Committee holds at least four meetings each year.

The Credit Risk Management Sub-Committee is responsible for determining KBank's credit risk management directions and strategies, and establishing and revising credit policies and processes, taking into consideration ESG risks and climate-related risks, in order to specify portfolio management strategies, lending targets and frameworks in accordance with the business types with the aim of efficiently minimizing GHG emissions in KBank's portfolio, in conformity with the responsible lending guidelines. The Credit Risk Management Sub-Committee is chaired by President and holds meetings on a monthly basis.

The Sustainable Development Sub-Committee is responsible to drive KBank's operations in alignment with the sustainable development policy and to ensure the efficiency of such operations towards achievement of the established targets, based on the strategy of a "Bank of Sustainability". The Sustainable Development Sub-Committee is chaired by the Chief Executive Officer and holds at least one meeting each quarter.

In addition, the Internal Audit Department, which is an independent unit, has conducted audit based on risk-based assessment. The audit scopes include significant risks and climate-related issues. The Matters related to the Bank's environmental, social, and governance (ESG) topics and the significant audit result was reported to the Audit Committee.

Management Strategies in Relation to Climate Change

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Management Strategies in relation to Climate Change

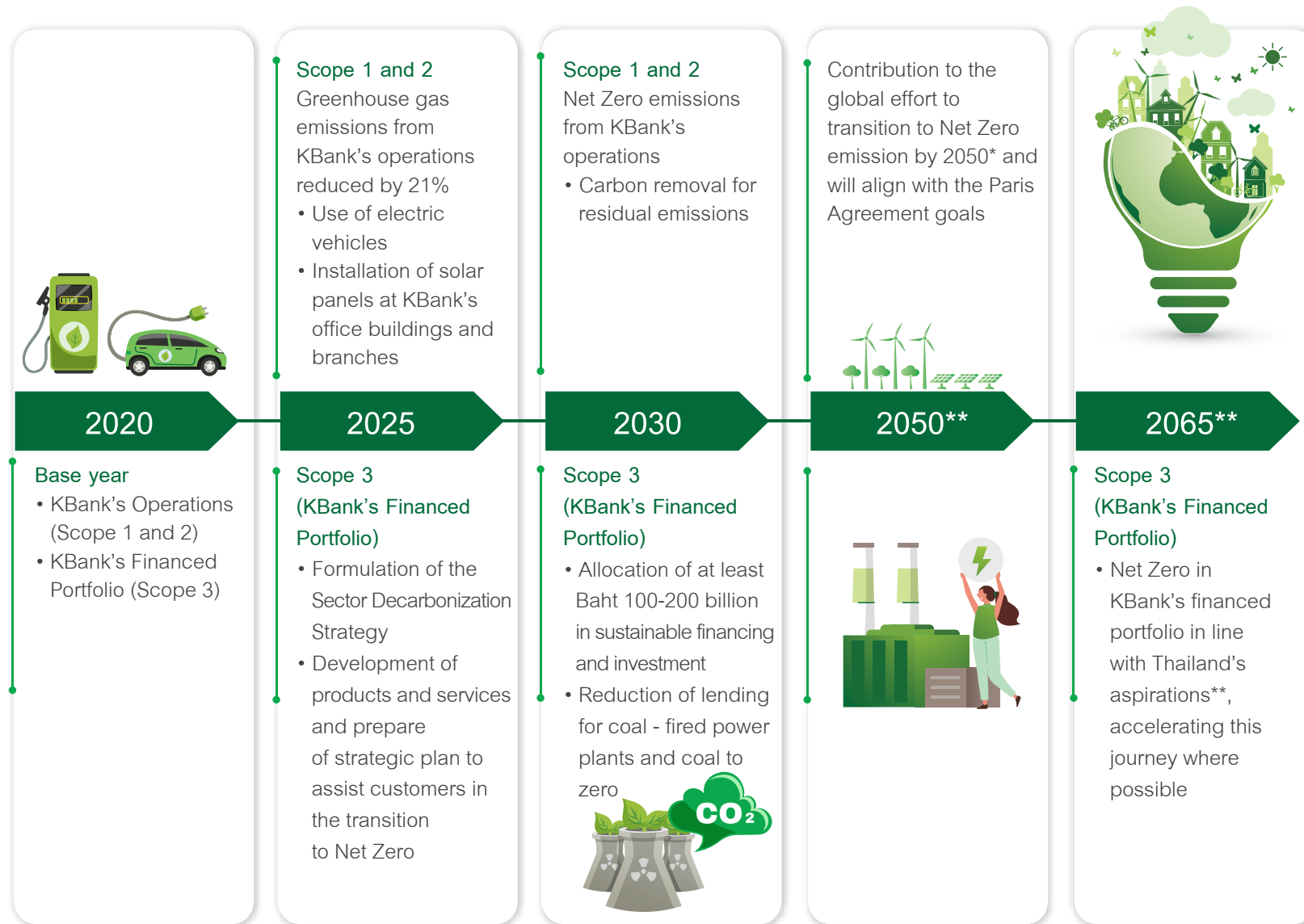
Recommended disclosures

- a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
- c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

KBank has announced the Net Zero Commitment with the aim of Net Zero in KBank's operations (Scope 1 & 2) by 2030. KBank is committed to achieving Net Zero in our financed portfolio in line with Thailand's aspirations, accelerating this journey where possible. To this end, KBank plans to revise

our portfolio to conform to the Paris Agreement and Thailand's target by means of promoting the alleviation of greenhouse gas emissions and adaptation to climate change. KBank has established policy on coal and related sectors, and also sectors with significant environmental and social impacts.

Decarbonization Pathway to Net Zero



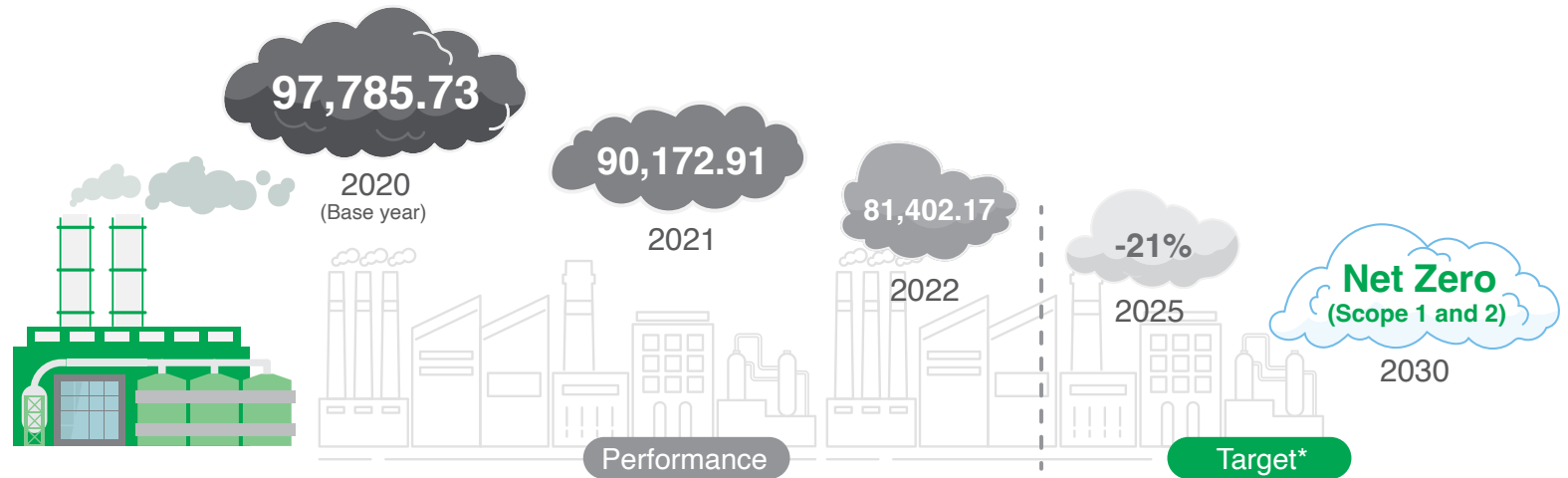
* Net Zero emissions by 2050 is the global effort to transition to net zero emissions aligning with the Paris Agreement goals. However, KBank commits to achieving Net Zero in our financed portfolio in line with Thailand's aspirations, accelerating this journey where possible.

** Thailand's ambition at COP26: 2050 carbon neutrality and 2065 Net Zero GHG emissions

Strategy of Own Operation Decarbonization Pathway (Scope 1 and 2)

KBank is ready to steer its business in a sustainable manner and create a balance between business growth and being environmentally responsible. For these reasons, KBank has implemented an environmental management strategy by setting a target to become net zero in our own operations (Scope 1 and 2) by 2030. Concurrently, KBank will continue to enhance its eco-efficiency through effective waste management. KBank's employees will be encouraged to engage in related activities, including value-based resource management, such as the reduction in using natural resources, raw water for operations and the number of their business trips and process development, such as green procurement and green design for products and services which greater concerning about environmental impacts. KBank is set to accelerate the implementation of various strategies to achieve the net-zero target by reducing environmental impacts from our own operations as much as possible.

Decarbonization Pathway to Net Zero (Scope 1 and 2)



* This target is considered to align with SBTi.



Scope 1: Emission from fossil fuel burned from KBank own car fleet

- EV Fleet Conservation
- Adopt lower emission factor fuel (E85, E20)

Scope 2: Emission incurred from electricity consumption

- Solar rooftop installation
- Energy Conservation Measures (Building Retrofit, BMIS)
- Space Optimization
- Renewable Energy Certificates (REC)

Residual emission

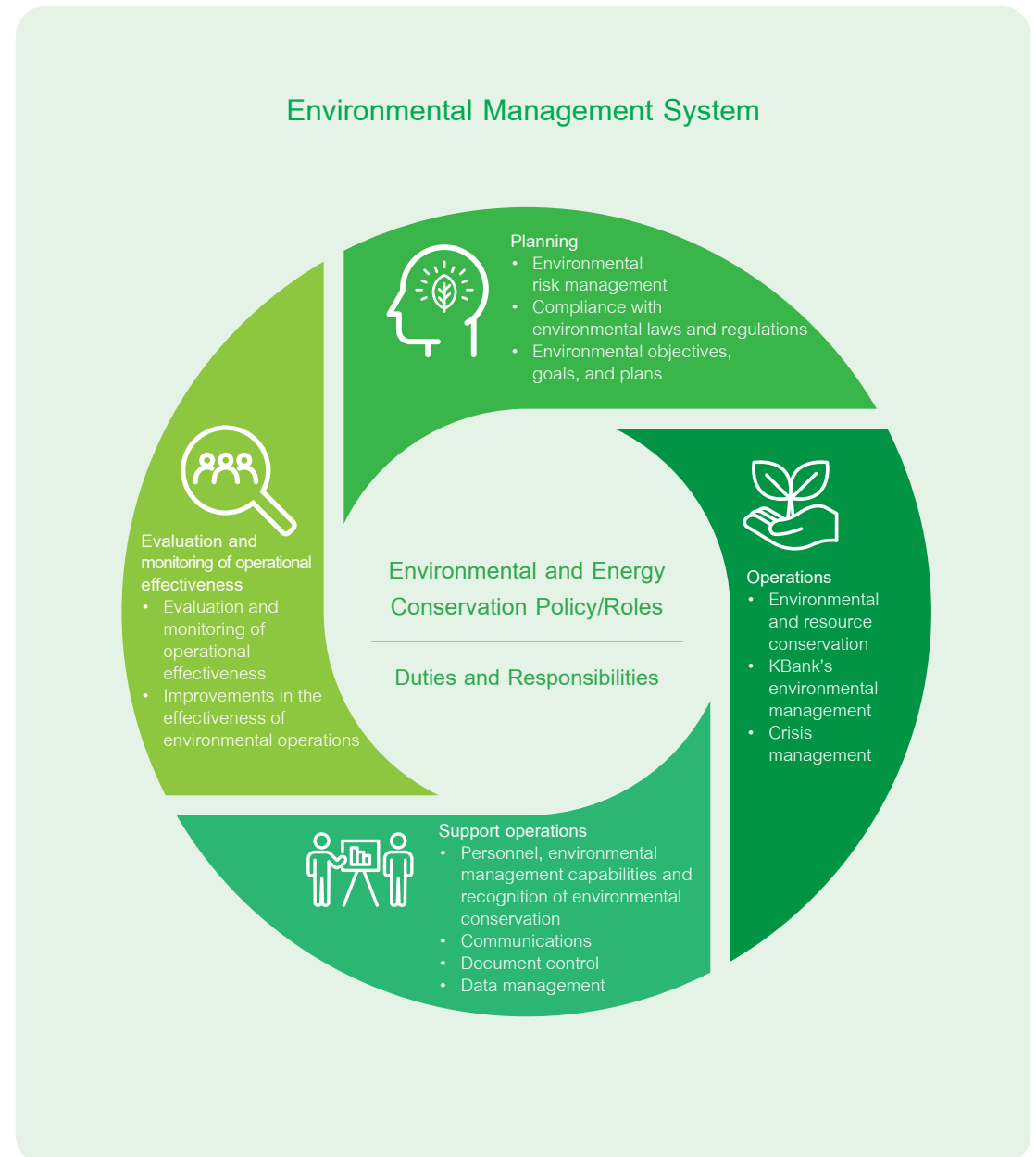
- Carbon Removal from Carbon sequestration and Forestation Project

Environmental Management

KBank strives to develop and expand the scope of the Environmental Management System (EMS) to cover more category in Scope 3, with the aim of enhancing confidence and building engagement at the operational level to ensure that our environmental management is more efficient and effective in every scopes. To this end, KBank has used new technologies to manage our environmental data, examine and measure various values. Aside from helping reflect the causes of problems faster, these technologies have also helped reduce the discrepancy in operational management and planning, as well as enhancing the efficiency of Measurement Report Verification (MRV) on a par with the required international standards. Additionally, KBank aims to upgrade our environmental management on a par with the required international standards by constantly improving the EMS in line with international standards, as follows:

Environmental Management System

KBank has a systematic management in place to maintain its environmental responsibility, comprising efficient resource and environmental management, which is undertaken concurrently with our organizational development via planning and monitoring processes, with the aim of improving business operations and reducing environmental impacts in an efficient manner. KBank has steadily improved our risk management in line with international standards and begun to adopt the ISO14001, which sets out the criteria for an environmental management system, as follows:





Management Approach

To become a zero-carbon organization in accordance with our environmental management strategy, KBank has adopted the focused acceleration approach in our energy and resource management, with the aim of bolstering our management efficiency in areas that have critical impacts on the environment and be under controls of KBank which enabling us to constantly create positive impacts on the environment. Such approach is based on simple concepts: “Waste reduction, maximum utilization of resources and restoration of natural resources”, which are seen in every scope of KBank’s services, including the management process, ranging from process design to product delivery, customer service, selection of environmentally friendly materials and equipment and zero-waste to landfill. KBank has implemented environmentally friendly operations, as follows:

Green Mobility

KBank recognizes the importance of reducing the impacts of internal combustion engines (ICE) on the environment, both GHG and PM2.5. In 2022, KBank began replacing our ICE vehicles with electric vehicles (EVs), with the aim of having our entire EV fleet by 2030.

Additionally, KBank attaches significance to value-based resource consumption, particularly the utilization of the company’s fleet. With this in mind, KBank has upgraded our vehicle tracking system so that we can analyze and monitor the use of the company’s fleet at both our Head Office and

branches nationwide. This is to ensure that KBank derives maximum benefit from such operation, as reflected in the reduction of the number of our fleet vehicles to 124 units since first operating in 2021.

Green Building Design

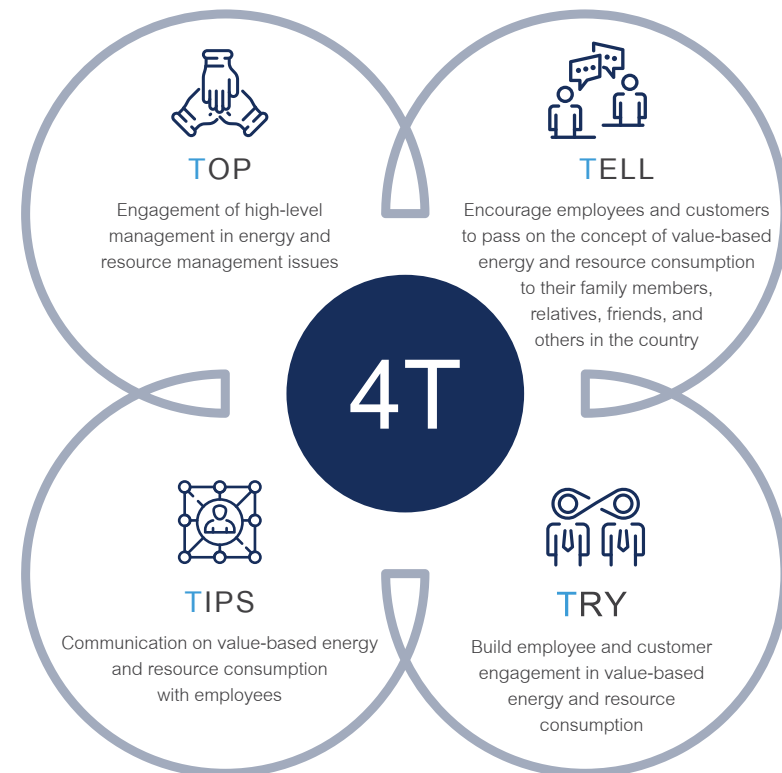
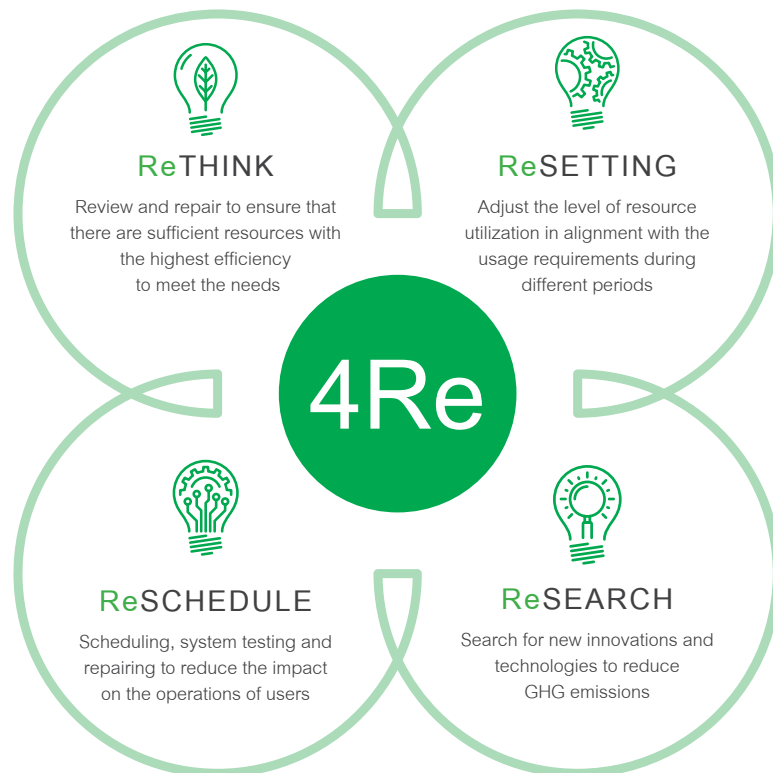
KBank attaches importance to green building design, including construction and selection of environmentally friendly materials in accordance with the Leadership in Energy and Environmental Design (LEED) international standard, which is a certification of green buildings that takes into account environmental impacts, energy efficiency, and quality of life of occupants. In addition, our buildings are in line with the principles of universal design as they are equipped with facilities for the disabled and elderly.

Presently, KBank has four LEED certified buildings, as follows.

- Chaeng Watthana Building has been awarded LEED for New Construction 2.2 Gold Certification.
- Phahon Yothin Building has been awarded LEED Commercial Interiors 2.0 Gold Certification.
- KASIKORNTHAI Learning Center (Ban Pho) has been awarded LEED for New Construction 2009 Platinum Certification.
- KASIKORN BUSINESS-TECHNOLOGY GROUP Building (Pak Kret) has been awarded LEED for New Construction 2009 Platinum Certification.

Green Operations

KBank has established the 4Re to 4T concept as a guideline for effective resource management. This covers organization-wide management of the lighting system, air conditioning and water systems, as well as employee business travel, based on the 4Re concept to enhance the efficiency of technical management and 4T concept to promote recognition among employees and customers about value-based energy consumption via various communication and learning channels.



KBank has steadily undertaken operations per the 4Re to 4T concept, as follows:

1. Lighting System Management

Since 2016, a standard has been established by KBank to use LED light bulbs in new buildings and branches. Our main buildings now use only LED light bulbs. Ongoing work is underway to replace all standard light bulbs with LED light bulbs at our branches when its broken or burned out.

2. Clean Energy Management

KBank has installed a solar rooftop system at three buildings. In 2022, the solar rooftop system generated 477,762.39 kilowatt-hours of electricity. Thanks to this effort, KBank was able to reduce total GHG emissions by 835 tonnes of CO₂ equivalent. KBank has a plan in place to install the solar rooftop system at another 7 buildings and 83 branches by 2023, and another 200 branches by 2025. As a result, KBank's share of renewable energy consumption will increase to 12 percent in 2025.

3. Air Conditioning System Management

KBank has installed a chiller plant, equipped with an air handling unit (AHU), at 4 buildings, increasing energy efficiency. KBank also continuously develops air conditioning system management in main

buildings and branches for reducing employee's health impact, level of refrigerant leakage and increasing energy management efficiency. As part of KBank's efforts to bolster the efficiency of our preventive maintenance and predictive maintenance, as well as reducing turnaround, a plan has been put in place to test the artificial intelligence-based Energy Management Information System to see whether it is suitable for our air conditioning system management at two buildings by 2023.

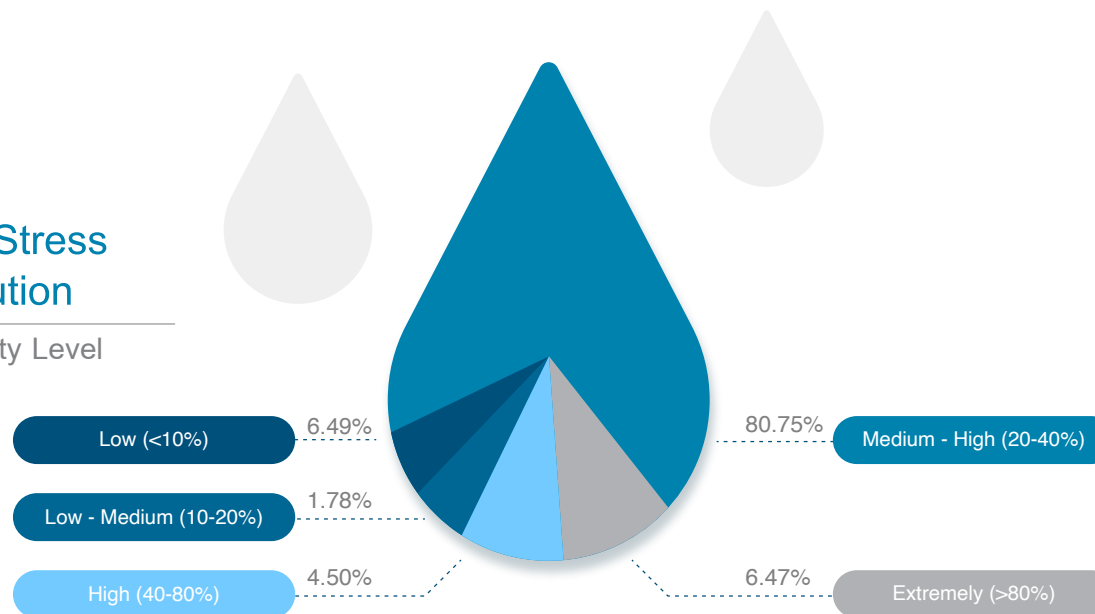
4. Water Use Management

KBank has efficient water system management achieved through water management innovations. Water flow rates of faucets and toilets in every building have been adjusted to reduce water consumption. Wastewater is effectively treated and reused in sanitary and plant watering systems to ensure the efficiency in resource consumption and related maximum benefits. In 2022, 19,458 cubic meters of recycled water were used at KBank.

Amid the current concern about water security in certain areas of the country, KBank has prepared risk assessment reports on all of KBank's buildings for enhanced efficiency in water use management in risk areas as shown in the figure below. In 2022, water consumption in risk-prone areas reached 62,729 cubic meters.

Water Stress Distribution

by Severity Level





5. Effective Waste Management

To ensure efficient waste management, KBank has established procedures for our waste management, including hazardous waste, to be used as guidelines throughout the organization along with integrating state-of-the-art techniques into our waste management. Moreover, KBank has promoted the awareness of waste reduction, including unwanted materials from their operations among employees. Such waste will be disposed of in landfill to reduce environmental impacts.

KBank encourages our employees to separate waste, refuse the purchases of products comprising materials that are hazardous to the environment, ensure that their operations help reduce waste or unwanted materials, expand equipment lifetime, repair and reuse certain equipment, and turn single-use packaging into biodegradable materials through an efficient waste segregation system. KBank has made available waste segregation points and waste disposal methods in accordance with the type of waste.

Regarding waste recycling management at various buildings, KBank has worked with document collection and destruction service providers to recycle scrap paper into pulp and paper. In 2022, a total of 1,404 tonnes of scrap paper were recycled, helping save 23,868 trees from being cut down.

In 2022, KBank adjusted our waste segregation system at four main buildings, with the aim of encouraging employees to participate in waste separation at original sources. KBank plans to organize activities, including those related to the provision of knowledge and experience on waste segregation on a continual basis.

6. Efficiency of Employees' Travel for Work

KBank has implemented the "Work that FITs" project to offer employees greater flexibility in carrying out their tasks. Under this project, employees can choose a work format that suits the nature of their jobs and lifestyles. They can even choose a working time that suits the nature of the jobs and have flexibility in clocking in and choose a workplace where they can still effectively perform their tasks, thus helping reduce expenses of both employees and KBank, while also mitigating environmental, congestion and pollution problems. In 2022, KBank began collecting data on the travel distance of employees to their offices in order to calculate the amount of GHG emissions generated for analysis and planning to reduce such impacts over the short and long - terms.

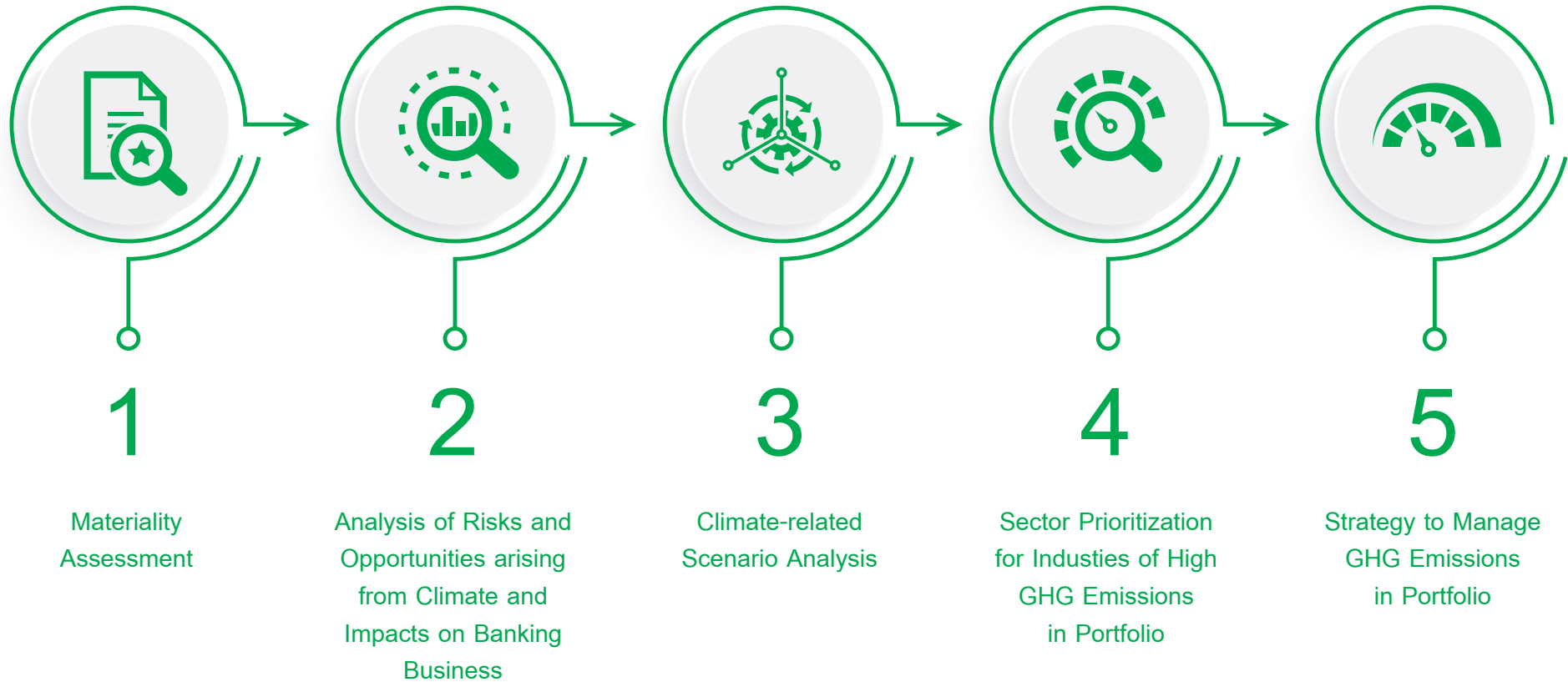
7. Green Process Design

KBank continually promotes green process design by using technologies to help enhance the related operational efficiency and offer customers greater convenience. Such technologies include the digital onboard process, with the aim of reducing operational procedures and consumption of paper resources via transaction fulfillment, which uses photos and electronic document files instead of paper for operations. KBank also uses the digital onboard process to expand various types of electronic printing services for customers via email in order to reduce paper consumption throughout KBank's operational process and amount of documents delivered within the organization and to customers. In 2022, KBank was able to cut paper consumption by 26 million sheets from process development in branches' services all over the country and from internal process development.

Additionally, KBank has improved the cheque processing service to offer customers a more satisfying service experience. The improvement allowed KBank to reduce the number of motorcycles used in the transportation of cheques between branches and operational centers by 99 units or equivalent to 3.5 million kilometers reduction per year in business travel.

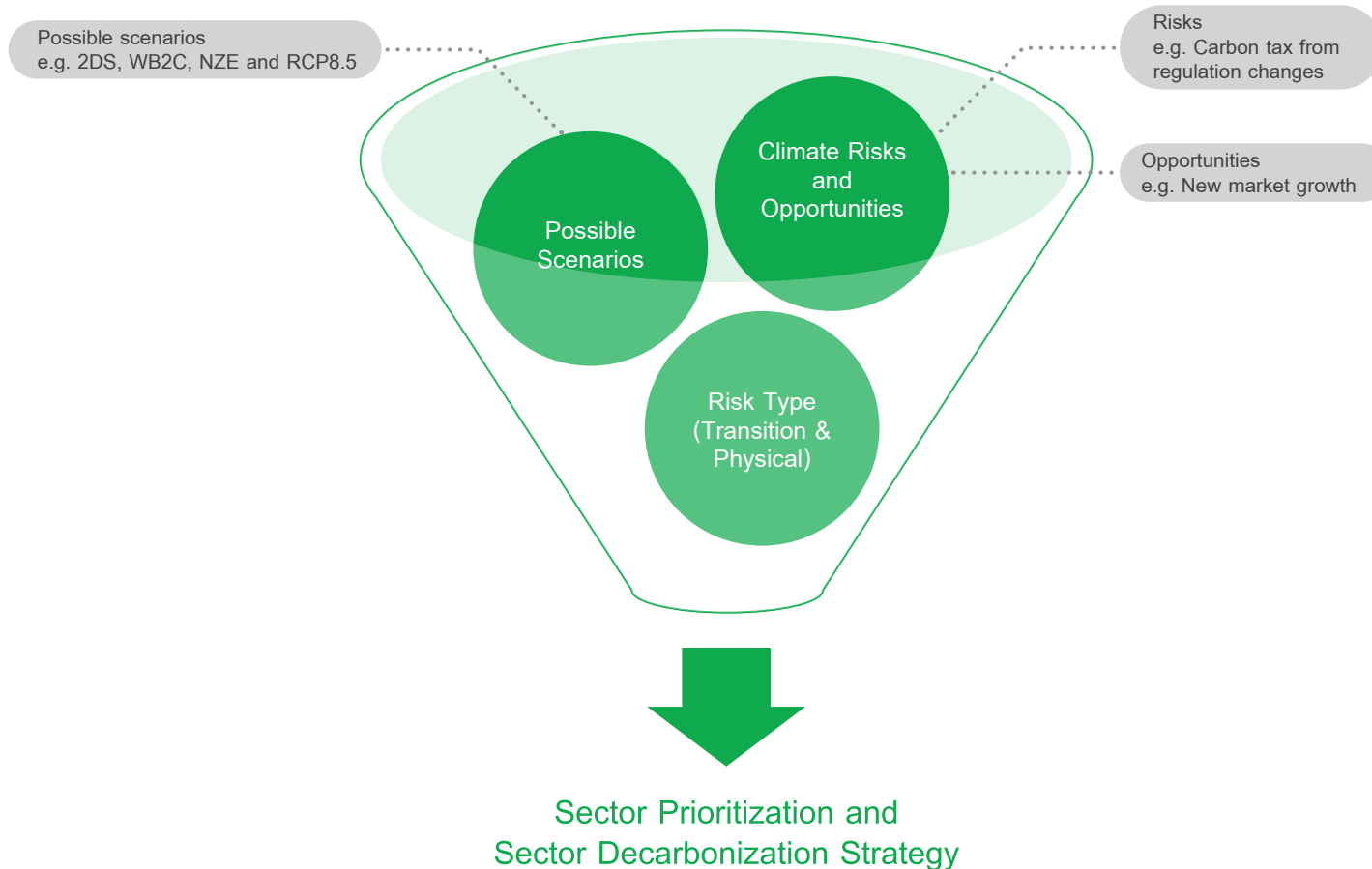
Strategy of Portfolio Decarbonization Pathway (Scope 3 : Category 15 Investment)

KBank's processes to prepare the strategy of management of risks and opportunities arising from climate conditions include the following:





1. Materiality Assessment



KBank has identified and analysed risks and opportunities related to climate conditions that produce financial impacts on KBank's businesses. The tool employed is Qualitative Analysis via discussions between KBank's internal departments with respect to possible scenarios, driving factors, related assumptions, and potential impacts to KBank's businesses, and results of each scenario for the customer segments and business sectors. Information gained would be screened for risks and opportunities related to climate change for use in materiality assessment. Targets announced by international communities and Thailand in global forums and Thailand's Nationally Determined Contribution (NDC) for different periods until 2050 and under varied scenarios, for example, the rise of 2°C in global average temperature (2DS Scenario), limitation of the rise in global average temperature to less than 2°C (Well Below 2 Degrees – WB2C) and limitation of the rise in global average temperature at 1.5°C (Net Zero Scenario – NZE). Such scenarios have been taken into consideration in the prioritization of material risks and opportunities, and planning for management and control later on.

Remark: 2DS : 2 Degree Celsius Scenario
 WB2C : Well-below 2 Degree Celsius Scenario
 NZE : Net Zero Scenario
 RCP8.5 : The concentration of carbon that delivers global warming of an average of 8.5 watts per square meter across the planet.



2. Analysis of Climate-related Risks and Opportunities arising from Climate and Financial Impacts on Banking Business

2.1 Climate-related Risks and Financial Impacts

Climate-related risks and financial impacts are challenging the business and banking sectors, and affecting their profitability, competition, image, reputation and survival. The business sector is compelled to adopt sound risk management. Without timely self-adaptation, they may face rising costs in the future as increased investment funds will be required. In addition, the costs for development of environmentally friendly products and services will rise, and thus affect business operators' competitiveness and repayment capabilities, which will eventually have financial impacts on banks.

According to assessment of the potential impacts of climate-related risks on KBank's financials, such impacts have been found to be short to long term. In the short term, KBank may be affected by risks associated with new practices and regulations established by various countries, for example, the EU's carbon tax to be imposed on imports in 2023 and additional new measures of other governments. As for physical risks over the long term, negative impacts may be caused by rising sea levels that will take more than 10 years to become more evident. As a result, KBank has determined a timeframe for impact analysis of related risks in order to better consider such possible impacts and to determine more appropriate control guidelines.

Timeframe of Risk Impact Analysis

Short term

5 years

Medium term

5 - 10 years

Long term

More than 10 years





The results of analysis of the potential impacts of climate-related risks on KBank’s finances, and guidelines to control risks and responses, may be summarized as below:

	Risks	Definitions of Risks	Impacts on KBank Businesses	Timeframe of Risks	Risk Mitigation Guidelines
Transition Risks	Legal and Policy-related Risk	Non-compliance with laws or legal stipulation	<ul style="list-style-type: none"> Rising business costs of KBank Write-off and depreciation of assets, due to customers' inability to adapt to regulatory changes 	Short-long term	<ul style="list-style-type: none"> Monitoring of strict compliance with related regulations and laws
		More stringent trend of laws and regulations related to the environment, e.g., carbon tax, Emission Trading System (ETS), and environmental measures causing trade barriers		Short-long term	<ul style="list-style-type: none"> Identification and assessment of impacts for the industrial groups in the portfolio that are among the first to be affected by related regulations Preparation of discussion with customers to map out the adaptation guidelines
	Technology-related Risk	Feasibility of and investment budget in technology development related to transition to low GHG emissions, e.g., production technologies using renewable energy sources, energy storage technologies, energy efficiency enhancement technologies, and technologies to minimize GHG emissions	<ul style="list-style-type: none"> Write-off and depreciation of assets Technology changes leading to increased investment costs Falling demand for goods with high GHG emissions, adversely affecting customers' income and repayment capabilities Rising funds for research and development 	Medium-long term	<ul style="list-style-type: none"> Follow-up of news on progress of technology exploration and development Support in research and development from related agencies Planning of investment in new technology businesses
	Market Risk	Changing consumer behaviors resulting in changes in demand and supply; consumers considering environmental and global warming issues as another factor in their buying decisions, making changes to market conditions	<ul style="list-style-type: none"> Consumers are more interested in environmentally friendly products, affecting sales of goods that cannot keep up with such trends, leading to financial problems and deteriorating repayment capabilities of this customer group Write-off and depreciation of assets 	Short-long term	<ul style="list-style-type: none"> Design and development of products and services that are environmentally friendly or create positive impacts



Risks

Definitions of Risks

Impacts on KBank Businesses

Timeframe of Risks

Risk Mitigation Guidelines

Reputational Risk

Lending to businesses that are not environmentally friendly, pressures from stakeholders, e.g., customers and investors

- Declining in stakeholder confidence
- Reduced customers' use of KBank services, affecting KBank revenues

Short-long term

- Determination of credit policy, exclusion list and Sector-Specific Guidelines, as well as a Sector Strategy for controlling greenhouse gas volume in the industrial groups with significant emissions
- Determination of growth targets for sustainable financing and investment

Physical Risks

Acute Natural Disasters

Droughts or floods that tend to occur more often and with increased severity

- Losses to assets of customers and banks
- Business interruptions
- Rising costs and expenditures for prevention of and recovery from impacts of natural disasters
- Increased investment in research and development
- Write-off and depreciation of assets

Short-long term

- Review and assessment of risks arising from natural disasters, and determination of impact alleviation work plans and emergency plans
- Incorporation of risks arising from natural disasters into risk appetites

Chronic Natural Disasters

Rising global temperatures, weather fluctuations, higher sea levels

Long-term

- Assessment of risk from floods based on KBank's location and preparation of disaster-warning tools and devising plan for increasing capability in coping with the disaster

2.2 Climate-related Opportunities and Financial Impacts

While the business sector and many nations are aiming to be Net Zero and towards transitioning into a society of renewable energy and clean energy consumption, as well as the adoption of technologies to enhance energy efficiency and minimize GHG emissions, financial needs to achieve the net zero target have been on the rise. In this circumstance, KBank sees certain opportunities to assist all sectors in realizing this goal by analyzing opportunities related to climate conditions and financial impacts on KBank, as well as response guidelines, as follows:

Opportunities	Definitions of Opportunities	Opportunities or Benefits on Bank Businesses	Respond to Opportunities
Resource Efficiency	<ul style="list-style-type: none"> Efficient consumption of energy and resources, e.g., water recycling, use of energy-saving devices, construction of environmentally friendly buildings 	<ul style="list-style-type: none"> Reduction of KBank's operating costs through strategic planning to enhance energy efficiency and minimize GHG emissions Increase of value of assets that are environmentally friendly Enhancement of employees' quality of life and livelihoods Reinforcement of positive image of KBank Opportunities to provide financial support for customers' improvement of business processes 	<ul style="list-style-type: none"> Determination of work plans for energy and resource efficiency Focusing more on customer engagement to encourage their operational strategies and investment planning to revise their operational processes towards greater resource efficiency Preparation of projects to promote awareness within and outside the organization
Energy Source	<ul style="list-style-type: none"> Use of technologies to produce clean and environmentally friendly energy, cooperation with agencies engaged in climate management in matters such as carbon tax law, carbon markets 		<ul style="list-style-type: none"> Determination of target to use more clean energy Determination of target to provide transition loans for greater use of clean energy
Products/ Services	<ul style="list-style-type: none"> Development of financial products and services to support environmentally friendly businesses Development of products that are beyond financial services to minimize impacts of climate change 	<ul style="list-style-type: none"> Expansion of customer database, income generation from financial products and services in support of environmentally friendly businesses, and generation of new income from products that are beyond financial services, e.g., establishment of Emission Trading Platform Increase of competitiveness Risk diversification for KBank's financial assets 	<ul style="list-style-type: none"> Exploration and design of new products and services to increase opportunities and choices for various groups of customers
Markets	<ul style="list-style-type: none"> Market expansion through environmentally friendly financing and investment Creation of new market with products and services that are beyond financial services 		<ul style="list-style-type: none"> Determination of targets for sustainable financing and investment Review of portfolio allocation to focus on environmentally friendly businesses and related businesses in the entire supply chain
Resilience	<ul style="list-style-type: none"> Self-adjustment to climate change 	<ul style="list-style-type: none"> Enhancement of KBank's market value and reputation 	<ul style="list-style-type: none"> Review of business strategies to focus on management of the environment and climate conditions Analysis of climate-related risks and business opportunities Arrangement of operational structure, development of employee potential and establishment of data storage for Climate-related management



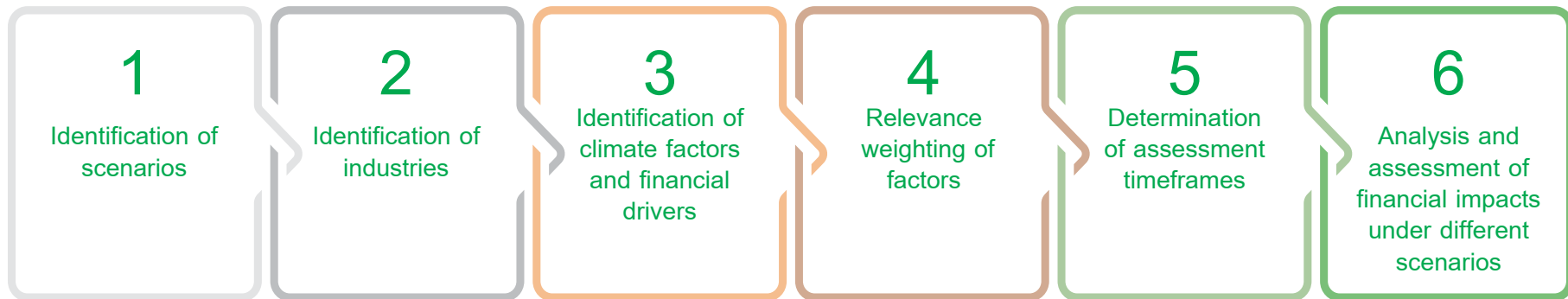
3. Climate-related Scenario Analysis

The results of assessment of climate-related risks and opportunities have been employed by KBank as a factor for determining future strategies and work plans to prevent and minimize impacts of climate change on KBank and our customers, in order to be able to adapt ourselves and build resilience to different situations in the future. KBank has conducted the climate-related scenario analysis, both qualitatively and quantitatively, in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), to assess impacts of climate change on KBank's portfolio and to apply the assessment results in establishing portfolio management strategies with respect to risk management and searching for business opportunities.

3.1 Assessment of Transition Risks

KBank has employed Climate Financial Driver Analysis (CFDA) as a tool to analyse climate-related risks and opportunities, incurred from lending to businesses that might have financial impact on KBank and our customers under diverse scenarios. Focus has been placed on risks arising from transition risks. The analysis processes consist of the following:

1. Processes of financial impact assessment from transition risks





1.1 Identification of scenarios for analysis:

- 1) Well-below 2 Degrees Celsius Scenario (WB2C): signifying efforts to minimize the impacts of climate change in accordance with the goal to limit global warming to less than 2 °C
- 2) Net Zero Scenario: signifying efforts to minimize the impacts of climate change in accordance with the goal to limit global warming to not more than 1.5 °C
- 3) Business as Usual Scenario (BAU): signifying the normal amount of GHG emissions, wherein global warming is 3.7 °C

1.2 Identification of industries: KBank has selected three types of power plants in the power plant industry for analysis, including natural gas power plants, hydropower plants and biomass power plants.

1.3 Identification of climate factors and financial drivers: of each type of power plant to study the relevance of impacts between these factors

1.4 Relevance weighting of factors: to reflect the levels of relevance to financial figures, classified into low, medium and high levels

1.5 Determination of assessment timeframes: including short term (2025), medium term (2030) and long term (2040 and 2050)

1.6 Analysis and assessment of financial impacts under different scenarios: via calculation of differences of factors under selected scenarios as compared with BAU Scenario in each stipulated timeframe to come up with impacts on revenues and costs of each type of power plant

2. Results of financial impact assessment from transition risks

Net Financial impacts under the WB2C Scenario can be summarized, as follows:

- Natural gas power plants: indicating low risk in the short term that will escalate to high risk in the long term, based on an assumption that natural gas will serve as transition fuel in the short and long terms, before replacement by other alternative fuels with less carbon and due to rising carbon prices in the long term; it is expected that revenues will fall following the decrease in demand for electricity generated by natural gas, which will create higher risk.

- Hydropower plants: indicating limited opportunities in the short term that will escalate to medium to high opportunities in the long term, based on a forecast of higher revenues following rising demand for electricity generated by low carbon sources in the medium and long terms.
- Biomass: indicating limited opportunities in the short, medium and long terms; revenues risk would be in line with energy consumption that is expected to rise.

Under the Net Zero Scenario that signifies efforts to minimize impacts of climate change in accordance with the goal to limit global warming to not more than 1.5 °C, net financial impacts can be summarized in terms of risks or opportunities of each type of power plant in a similar manner. However, there will be some differences with respect to the levels of impacts.

The results of analysis and assessment of risks, opportunities and impacts from climate-related scenario analysis will be used in credit portfolio management, for example, setup of a target to increase the proportion of renewable energy power plants, financial planning, and formulation of customer engagement plans to aid customers in setting up targets and operational strategies in their own net zero transition journeys through the design of green financial products and services, for example, renewable energy loans.

In this regard, KBank will expand the scope of climate – related scenario analysis on risks, opportunities and impacts to cover other industry groups in accordance with their priorities.

3.2 Assessment of Physical Risks

Physical risks are classified into two types:

- **Acute risk** is associated with sudden and severe phenomena, such as cyclones, typhoons, floods and droughts, which have become more frequent and severe.
- **Chronic risk** is involved with accumulated and lengthy climate change, for example, sea level increase, and change in average global temperatures and precipitation patterns.

These two risks will produce negative impacts on KBank’s businesses in various aspects, including losses to properties of customers and KBank, business disruption, rising costs for prevention and alleviation of natural disasters’ impacts, increases in R&D investments, asset write-offs and depreciation.

According to Germanwatch’s Global Climate Risk Index of 2021, the top 10 countries have been ranked with the highest risk of extreme climate conditions as a result of climate change, among which Thailand is in the ninth position. The criteria for such rankings included five factors, namely the fatalities, fatalities per 100,000 inhabitants, the losses in million US\$ PPP, the losses per unit GDP in percentage, and the number of evenets over the period of 2000 – 2019. For Thailand, there were 146 natural disasters (in 20 years), and the total value of losses amounted to USD7,719.15 million.

Physical risk: Existing exposures and increasing flood risks in extreme weather conditions.

KBank identified the flood risk level faced by our operations in Thailand for commercial banking and retail banking including secured loans and mortgage financing in Thailand. KBank applied an inventory of exposure for high flood risk level according to the ‘Repetitive flooding map of Thailand’ developed Office of Natural Calamity and Agricultural Risk Prevention, Land Use Policy and Planning Division, Land Development Department, Ministry of Agriculture and Cooperatives.

Level of Risk of Collateral	Number of Flood Events in the Past 10 Years
No risk	0
Low risk	1-3
Medium risk	4-7
High risk	8-10

To assess forward-looking flood risk under RCP2.6 and RCP8.5, the scenario data of flood risk indicators (Relative changes in **Annual Maximum River Flood Depth** and/or Relative changes in **Land fraction annually exposed to River Floods**) from the Climate Impact Explorer developed by Climate Analytics is applied to evaluate rising flood risk by 2050. The geographical location of KBank’s operating assets and collateralized assets was combined with the Repetitive flooding map of Thailand and Climate Impact Explorer’s flood risk indicators via the geographical information system analysis to achieve precise and granular evaluation of the existing and forward-looking flood risk.

KBank has considered methodologies to assess financial impacts caused by physical risk, based on changes in key credit variables, as follows:

1) Probability of Default (PD)

KBank’s assessment is expected to estimate changes in income effect, based on the depreciation of financial positions of the counterparties. The level of depreciation may vary in accordance with the types of industries and the counterparties’ locations. The income effect will be incorporated in the PD that varies with the value of risk arising from flooding.

2) Loss Given Default (LGD)

KBank is expected to estimate changes in customers’ wealth via depreciation of collateral value. The levels of depreciation represent decreasing wealth, which will depend on the locations of collateral, statistics and trends of flooding in such particular areas. The value of losses may vary with the value of risks arising from flooding.

Changes in these parameters may result in changes in credit risks, revealing potential financial impacts and magnitude of physical risks associated with KBank’s assets. The findings of the analysis can be translated to develop mitigation plans and inform business strategies of new and current operations and lending such that KBank can manage these risks within controllable and acceptable limits.

A review of KBank’s high physical exposure to flood by the end of December 2022 is as the following:

Risk factor		Historical data	Future projection 2050 RCP2.6	Future projection 2050 RCP8.5
Proportion of No. of asset in High risk - flooding	Owned assets	0.01%	0.38%	0.49%
	Collateral assets	0.12%	0.54%	0.57%
Data resource		Office of Natural Calamity and Agricultural Risk Prevention*	Climate Impact Explorer by Climate Analytics in collaboration with the NGFS, the Potsdam Institute for Climate Impact Research and ETH Zürich**	



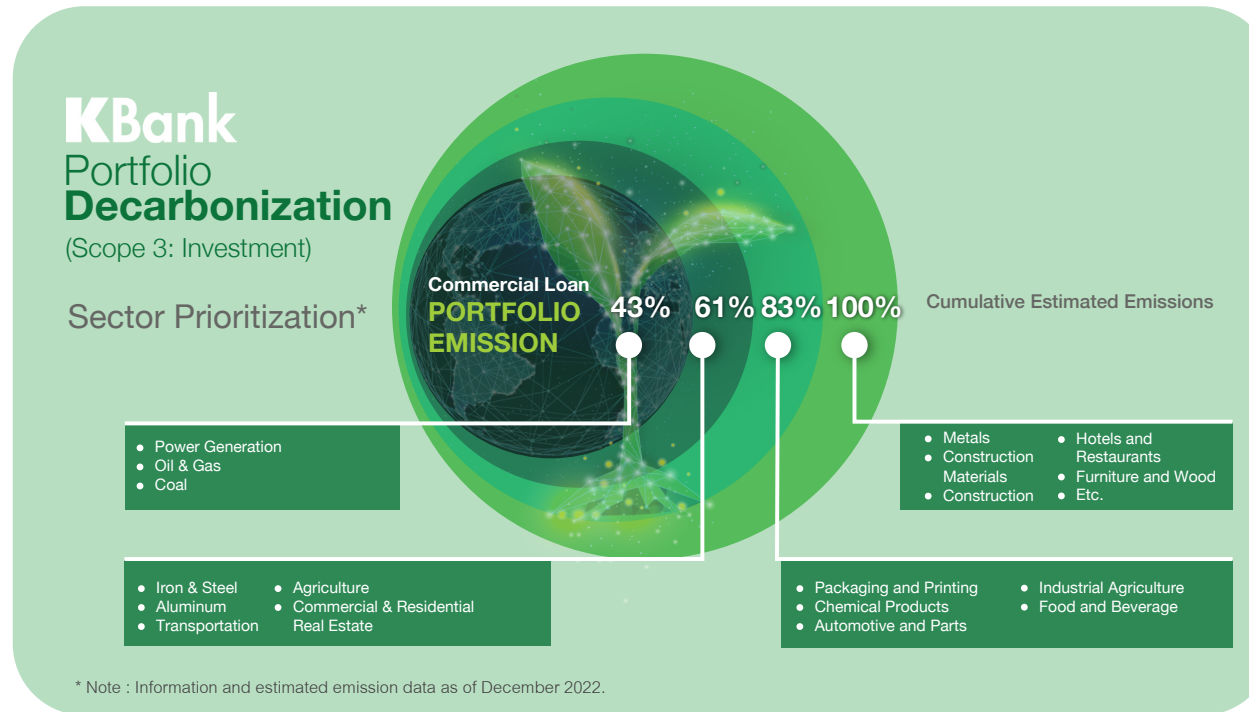
There are various challenges in the assessment of financial impacts caused by physical risk, for example, geographical diversity of collateral and collateral values that are influenced by different factors. Therefore, creation of models of losses caused by flooding and detailed projection of flooding maps in the medium and long terms is complicated and varied by each particular area.

Going forward, KBank plans to assess financial impacts based on physical risk, as follows:

- Development of tools to analyze physical risk under cooperation with government agencies, research institutes, academics and outside experts to determine a risk area map that is specific for use in Thailand
- Expansion of assessment of impacts on wealth and income caused by flooding risk that produces repercussions on credit risk – The assessment results will be incorporated into the credit risk management processes. Such impact assessment includes, for example, analysis of risks, opportunities and impacts related to weather conditions under different assumptions (Climate-related Scenario Analysis), with respect to physical risk and stress testing.
- Participation with outside experts and advisors to study different adaptation scenarios of the Network for Greening the Financial System (NGFS) and forecast of impacts in order to calculate the volumes of impacts caused by physical risk under diverse weather situations, and to study the methods of risk assessment for physical risk per the World Bank’s recommendations.

* Source: Classification of risk levels by the Land Use Policy and Planning Division, Land Development Department, <http://lrw101.ldd.go.th/index.php/2017-05-23-02-00-40/2017-05-23-02-00-40>

** Source: <https://climate-impact-explorer.climateanalytics.org/>



4. Sector Prioritization for Industries of High GHG Emissions in Portfolio

KBank has employed the results of analysis of risks and opportunities related to climate conditions and impacts on KBank’s businesses, and the result of Climate-related Scenario Analysis by each period, as well as the results of assessment of GHG emissions by industry in KBank’s portfolio in classifying the industrial groups with high GHG emissions to map out our Sector Decarbonization Strategy and to determine the paths to alleviate and control the volumes of GHG emissions of each industrial group in accordance with the Paris Agreement and Thailand’s target.

The starting point is to determine a strategic plan to alleviate GHG emissions of the sectors with high emissions (No Regret Sectors), namely power generation, oil and gas, and coal, which represent 43 percent of total emissions in the commercial loan portfolio.



5. Strategy to Manage GHG Emissions in Portfolio

KBank has developed several sector-specific strategies to decarbonize financed emissions in the “No Regret Sectors”. For Power Generation sector, KBank has determined the portfolio’s emissions intensity pathway that will align out investments with the goal of Paris Agreement. The emissions intensity target encourages KBank to increase our investment in Renewable Energy and to reduce our investment in fossil fuels-based power projects. Consequently, KBank plans to reduce the provision of existing loans to thermal coal-fired power plans to zero by 2030. Moreover, for thermal coal mining activities, KBank no longer provides a provision of corporate finance and coal infrastructure for thermal coal mining. KBank will gradually reduce the coal mining loan portfolio to zero within 2030. Regarding the Oil and Gas sector, KBank has determined limits of investment in Upstream Oil & Gas financing. KBank also does not support any exploration or production projects of unconventional resources as mentioned on the “ESG Credit Policy”^{*}.

* More information on “ESG Credit Policy” <https://www.kasikornbank.com/en/ir/corporategovernance/transparency/pages/esg-credit-policy.aspx>

5.1 Sector Decarbonization Approach

KBank has adopted several globally-recognized climate target setting and decarbonization standards such as UNEP FI Climate Target Setting Guidelines, Science-based Target Initiative (SBTi), and PACTA to inform the development of our sector-specific decarbonization strategies. The combination of multiple standardized targets setting principles gives KBank options to choose the appropriate decarbonization strategies and target settings, varying by unique characteristics of each industry.




5.2 Decarbonization Scenarios

There are several climate scenarios that represent paths to Paris Agreement, including the Net Zero Scenario (NZE) and the Sustainable Development Scenario (SDS). The SBTi suggests financial institutions set decarbonization targets of their financed emissions based regional pathways instead of global pathways. The choice between global pathways and regional pathways ultimately depends on the geographical composition of portfolio, availability of data, sector-specific characteristics, and country-specific characteristics of these prioritized sectors.

Thailand has placed high priority on climate change as one of the key challenges affecting communities' livelihood, economic growth, and the achievement of sustainable development. The Thai government has publicly committed to carbon neutral target by 2050 and net zero carbon by 2065 referenced to the 26th Conference of the Parties (COP26). To attain carbon neutrality and net zero goals, Thailand has revised and published its 2nd updated Nationally Determined Contribution (NDC) the national Long-Term Low Greenhouse Gas Emission Development Strategy (LT-LEDS) on November 2022 to accelerate the decarbonization pathways, aligning the national goals with the goals of the Paris Climate Agreement of keeping the global warming well-below 2°C .

Therefore, KBank has applied the IEA Sustainable Development Scenario (SDS) as the reference decarbonization pathways of our portfolio, aligning our investment pathways with the goal of the Paris Agreement of keeping the global warming well-below 2°C. Nonetheless, KBank will consider and incorporate any material changes to Thailand's GHG reduction pathways strategies as they arise into KBank's decarbonization pathway.

5.3 Summary Table

Sector	Scope of Supply Chain	Scope of Emissions	Scenario	Unit of Target Setting	2030 Target**	2050 Target**
 Power Generation	Generation Activity	Scope 1 & 2	IEA SDS Thailand Scenario*	Emission Intensity (tCO ₂ e/GWh)	-26% by 2030 from base year 2020	-90% by 2050 from base year 2020
 Thermal Coal	Coal Mining	Scope 1 & 2	IEA SDS Global Scenario	Absolute Finance (Thai Baht)	-100% by 2030 from base year 2020	-
 Oil & Gas	Upstream Oil & Gas	Scope 1 & 2 & 3	IEA SDS Global Scenario	Absolute Finance (Thai Baht)	No new financing to unconventional oil & gas***	-44% by 2050 from base year 2020

* Readily available global and regional IEA SDS scenarios are not the best representatives of Thailand's energy structure and transition. So KBank, alongside external subject matter experts, has localized global and regional IEA SDS scenario pathways to develop Thailand-specific decarbonization pathway to set targets of the Power generation portfolio. The projection of Thailand scenario might be subjected to changes when additional information is available over time.

** The targets might be subjected to changes once more information from official sources such as NDC and National Energy plan are updated/available

*** More information on "ESG Credit Policy" <https://www.kasikornbank.com/en/ir/corporategovernance/transparency/pages/esg-credit-policy.aspx>

Moreover in 2022, KBank conducted significant sustainable development operations in alignment with the strategic directions established by the Board of Directors. Major initiatives are, as follows:

- Embracing ESG Aspiration with the aim of becoming the ESG leader among banks in Southeast Asia: To this end, KBank's ESG strategy has been established for our business operations, accounting for environmental, social and governance priorities under Objective and Key Results (OKRs) for 2023-2025.
- Setting up the Climate Pillar working group chaired by president to manage greenhouse gas emissions from our own operations and financed portfolio. Along with the Bank's agile way of working, the Climate Pillar Working group is working closely with several divisions including core business divisions in eight key areas i.e., (1) credit; (2) wealth management; (3) payment services; (4) regional expansion in AEC+3; (5) business expansion via new channels; (6) beyond banking solutions; (7) ESG-related operations; and (8) new business development via technological innovation. The collaboration also helps in innovating products and services to support customers in transition to Net Zero.
- Formulating an action plan in conformity with our Net Zero Commitment which encompasses reduction of GHG emissions from our own operations such as use of energy saving office supplies, installation of solar panels at KBank's office buildings and branches, use of electric vehicles and purchase of carbon credit and Renewable Energy Certificate (REC), etc. We also established guidelines for achieving Net Zero in our financed portfolios as follows:
 1. KBank has a policy to stop financing projects of new coal-fired power plants and coal. We aim to gradually reduce the amount of outstanding loans to coal-fired power plants and coal to zero by 2030, including implementation of a customer engagement plan to ensure that our customers and bank have the same direction to achieve Net Zero.

2. KBank formulated the Sector Decarbonization Strategy for three industries namely, power generation, oil and gas, and coal in order to achieve Net Zero in our financed portfolio.
 3. KBank targeted support to sustainable financing and investment with the amount of Baht 25 billion. To this end, we launched the GO GREEN Together project to pioneer a comprehensive Green Ecosystem in Thailand in order to encourage the general public to take collective action in achieving Thailand's net zero goal. In 2022, KBank supported Baht 26,411 million in sustainable financing and investment.
- Building the capability on greenhouse gas management for employees: To collaborate with the Stock Exchange of Thailand (SET) and the Thailand Greenhouse Gas Management Organization (TGO) (Public Organization) to organize learning courses on the climate change adaptation and mitigation among executives and employees.
 - Partnering with other organizations for cooperation in sustainable development promotion – Major operations are as follows:
 1. Becoming a member of the United Nations Global Compact (UNGC) to uplift our business operations in conformity with the globally accepted principles, covering four key areas of human rights, labor, environment and anti-corruption.
 2. Becoming a signatory to the Partnership for Carbon Accounting Financials (PCAF), which is an initiative under the cooperation of the global financial sector to formulate standards for assessment and disclosure of GHG emissions financed by loans and investments.



Risk Management

Risk Management

Describe how the organization identifies, assesses, and manages climate-related risks.

Risk Management

Recommended disclosures

- a. Describe the organization's processes for identifying and assessing climate-related risks.
- b. Describe the organization's processes for managing climate-related risks.
- c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

KBank has designed the processes of appropriate risk consideration to prevent and minimize business risks of customers and KBank. For the overall risks of the organization, consideration is made on transition risk and physical risk that will directly affect KBank's major risks, for example, credit risk and operational risk.

Three Lines of Defenses

KBank has applied the Three Lines of Defense guidelines to our risk management, starting from the Board of Directors to the operational level to ensure that our risk management process has been efficiently supervised, controlled and examined by responsible units.

- **1st Line - Business units** are responsible for continuous and active management of all relevant risk exposure to be in line with its returns and risk appetite.
- **2nd Line - Risk management and control units** are responsible for providing independent and objective views on specific risk-bearing activities to safeguard the integrity of the entire risk process, as well as controlling risk levels to ensure that they are in line with our risk appetite.
- **3rd Line - Internal Audit** is independent and responsible for evaluation to add value and improve the effectiveness of risk management.

Risk Management Process

KBank has in place a risk management process comprising risk identification, assessment, monitoring, controlling and reporting. We have steadily improved our risk management process so that it is consistent with regulatory changes, emerging risks and the prevailing business environment. We have focused on climate-related risk, which has been incorporated into our credit risk management process. Climate-related risk is a factor for credit underwriting as well as assessing the impact on KBank's credit portfolio. KBank also places significance on early warning and monitoring of risk position and overall concentration. We have also regularly reviewed the adequacy of our risk management system and efficiency of risk management via relevant committees. The reviews have shown that our overall risk management is appropriate.

Enterprise Climate-related Risk Consideration

KBank's processes to consider the overall climate-related risk of the organization include the identification, assessment and alleviation of impacts of climate conditions on KBank to ensure our business continuity and safety of the lives and property of our customers, employees and all stakeholders. Such risk consideration is a component of KBank's enterprise risk management, and is conducted on a yearly basis or more than one time a year to keep up with the prevailing trends and to be able to cope with newly emerging impacts of climate conditions in a timely manner. Risk consideration is associated with the respective timeframes of short, medium and long terms, incorporating newly emerging factors that affect global climate conditions.

Processes of Enterprise Climate-related Risk Consideration



1. **Risk Identification:** Identifying climate-related situations/threats that incur physical risk and transition risk, based on global megatrends, and considering new rules and regulations
2. **Risk Assessment:** Assessing overall risk of the organization in three levels: high, medium and low, based on impacts and likelihood of risks, and effectiveness of existing controls
3. **Risk Mitigation:** KBank has proactive risk management in place, consisting of risk prevention, monitoring and management. For any high-level or significant risks, KBank will undertake additional analysis to prevent, correct or implement more management measures, for example, improvement of processes and review of resource allocation to control risks, taking into consideration various factors, e.g., risk incidents, costs, resources, and impacts on customers and business operations. KBank also has a Business Continuity Plan (BCP) and IT Disaster Recovery Plan (ITDRP) to deal with climate-related risk incidents that may have impacts on our operations and business undertakings.

Physical Climate Risk Adaptation Plan

Climate change can affect KBank facilities, operations, and employees. The scientific consensus is that climate changes due to a warming climate may occur in more frequent and severe acute weather like severe flooding. Thus, there are higher probability of negative financial impacts and business disruption events to our employees and the infrastructure - such as power and data centers - could be exposed to a range of risk depending on the location of each facility located.

KBank has implemented following climate physical adaptation solutions in protect our people, facility, and business from adverse physical climate risk.



- Review climate scenario analysis in case of flooding event as the most likely event and utilize the information to inform the selection of suitable locations for new banking branches and their physical design, taking into consideration the potential risks of flooding in the area
- We have dedicated Facility Team to monitor potential extreme flooding events that can impact our operation.
- Annually review the exposure at loss and reconsider the mitigate plan for the residual risk by insurance if necessary.
- The predefined actions have been developed to address immediate risks and support our employees and customers before, during, and after adverse events.
- Our Business Continuity Management Sub-committee is promoted to activate the plans to help KBank resume business operations within acceptable timeframe to minimize operational disruptions in case of an extreme climate event like flooding occurs.
- Strengthens our service in digital channels to decrease our physical dependency of branches and other service area. We are determined to deliver services accessible to our customers through deployment of technology.
- Implement suitable mitigation action such as construction of flood barrier and temporarily relocation of Auto Teller Machine from flooded area to prevent damage.



Consideration of Credit Risk related to Climate Conditions

Under KBank's processes to consider credit risk related to climate conditions, climate factors are integrated in the consideration of loans and investment, to prevent risks that may produce negative impacts on KBank's image and operations, and to promote long-term, stable business advancement, while generating long-term, sustainable returns to all stakeholders.

With the Portfolio Impact Analysis Tool of the United Nations Environment Programme Finance Initiative (UNEP FI), KBank's review and assessment of overall positive and negative impacts on business operations were made in the economic, social and environmental aspects. Various issues have been found that must be managed without delay (Very High and High Country Need Score), including the following:

1. **Environmental aspect:** climate, biodiversity and circularity
2. **Social aspect:** equality & justice; integrity & security of person; availability, accessibility, affordability & quality of resources and services
3. **Economic aspect:** strong institutions, peace & stability, and socio-economic convergence

Although KBank has placed importance on those three risk factors, a particular focus is on the environmental aspect, which is one of the world's most urgent issues, and could produce extensive and serious impacts. Concerning KBank's credit portfolio, the results of analysis via the UNEP FI's Portfolio Impact Analysis Tool are as follows:

1. **Climate:** KBank has placed an emphasis on the power generation industry, which is among the industries with high GHG emissions. Of multiple types of energy sources, namely, natural gas, water, coal, solar, wind and other technologies, coal is the energy source that releases the highest volume of GHG. Therefore, KBank has planned to minimize financial support to coal-fired power plants, while extending more credits to those using renewable energy, in a bid to reduce GHG emissions in line with Thailand's goal.
2. **Resources and efficiency:** Focus has been placed on the real estate sector, comprising of condominiums, office buildings, shopping complexes, etc., due to limited available information, such as information related to carbon emissions, energy efficiency, and resource consumption. However, this industry is subject to green building standards that emphasize environmental issue. Therefore, KBank aims to provide more financing for construction and improvement of buildings to achieve the green building standards, such as the Leadership in Energy and Environmental Design (LEED) and the Thai's Rating of Energy and Environmental Sustainability (TREES), which certify efficiency of resource and energy consumption, and environmentally friendly building designs and material selection, as well as proper water resource management.

Metrics and Targets

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Metrics and Targets

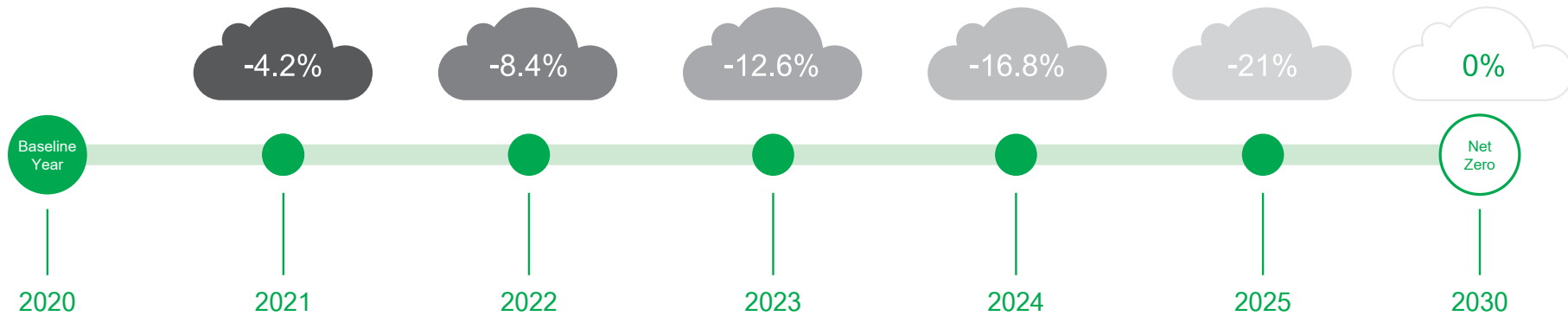
Recommended disclosures

- a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.
- c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

KBank has established Board of Directors KPIs based on the Balanced Scorecard as a tool for transforming the strategy into practice. Key performance indicators have been drawn up to measure success through four key dimensions, including: Finance, Customers, Internal Processes, and Learning and Sustainable Development, to ensure that business strategies that account for ESG factors are in

harmony across the organization. The key performance indicators will be cascaded from the level of Chief Executive Officer to the level of President, Division Head and other parties involved. Operating results have been monitored to attain the established objectives.

Metric and Target to Achieve Net Zero Emissions in Our Own Operations (Scope 1 & 2)



In order to aligned with the Paris Agreement on climate change, Kbank has develop a target to reduce Scope 1 and Scope 2 GHG emission using the guideline and recommendation from the Science-Based Target initiative and committed to becoming Net Zero in our own operations (Scope 1, 2) by 2030.

Sustainable Development Policy – Environmental Aspect

Committing to becoming Net Zero in our own operations by 2030

Metrics and Long - term Targets 2023 - 2025

- 1) 21% reduction of GHG emissions in 2025 (Baseline year 2020)
- 2) Achievement of 'Zero Waste to Landfill' at KBank's 4 main building within 2025

Target 2022

8.4% reduction of GHG emissions (Baseline year 2020)

Performance 2022

16.75% reduction of GHG emissions (Baseline year 2020)

Own Operation Performance

The EMS has been put in place to serve as a database for KBank's GHG emissions and energy consumption in line with our strategies and objectives. In 2022, KBank increased renewable energy consumption by 14.45 percent (compared to the target of 10 percent set for 2021) and KBank also reduced water withdrawal by 7.10 percent (compared to the target of 3 percent reduction set for 2021), reduced waste generation by 10.49 percent (compared to the target of 8 percent reduction set for 2021) and GHG emissions decreased by 16.75 percent (compared to the target of 8.4 percent reduction from 2020 baseyear). The table below provides statistics documenting our environmental performance.

Performance 2022

- 14.45% Increase in renewable energy consumption
- 7.10% Reduction in water withdrawal
- 10.49% Reduction in waste generation
- 16.75% Reduction in GHG emissions

	Operating Performance				Target
	2019	2020	2021	2022	2022
Total Energy (renewable and non-renewable energy) (megawatt-hours)*	228,646.07	213,091.99	186,564.30	188,807.49	-
Business Travel (kilometers)**	4,386,304	4,807,722	3,913,550	3,919,990	-
Water (cubic meters)	871,805	781,862	615,550	571,827	597,084
Waste (metric tons)	7,050.79	5,851.33	5,494.61	4,918.38	5,055
Greenhouse Gas Emissions (Scope 1 and 2) (tonnes of CO ₂ equivalent)	103,996.95	97,785.72	90,172.91	81,402.17	89,571.73
• Scope 1 (tonnes of CO ₂ equivalent)	21,145.20	18,727.05	15,833.59	11,232.01	
• Scope 2 (tonnes of CO ₂ equivalent)	82,851.75	79,058.67	74,339.32	70,170.16	

Note:

* In 2022, KBank's GHG emissions (Scope 1) report provided information on refrigerant and extinguishing agent leakage only.

** Business travel by land transport only.



Metric and Target to Achieve Net Zero Emissions in Financed Portfolio (Scope 3)

KBank is committed to achieving Net Zero in our financed portfolio in line with Thailand’s aspirations, accelerating this journey where possible. We will continually assess opportunities to take earlier actions as the technology, regulatory environment and external context evolves.

Sustainable Development Policy – Environmental Aspect	Metrics and Long - term Targets 2023 - 2025	Target 2022	Performance 2022
Committing to reducing greenhouse gas emissions in our financed portfolio in line with Thailand’s aspirations; reducing greenhouse gas emissions in significantly impacted sectors, both in terms of greenhouse gas emission volume and the proportion of loans extended to each sector; and accelerating this journey where possible.	Completion of glidepath and/or sector strategy development	3 glidepaths and/or sector strategies to be completely developed.	3 glidepaths and sector strategies were completely developed, namely power generation, oil and gas, and coal industry.
Being the Leader of innovative “Green Finance” in Thailand	Allocating at least Baht 100 - 200 billion in sustainable financing and investment by 2030	Allocate at least Baht 25,000 million in sustainable financing and investment	Allocated Baht 26,411 million in sustainable financing and investment
Providing services beyond financial solutions to support decarbonization in Thailand	Satisfaction level of using Beyond Banking Solution: 80%	Satisfaction level of using Beyond Banking Solution: 80%	Satisfaction level of using Beyond Banking Solution: 81%



Financed Emissions & Credit Exposure to Carbon-related Assets

GHG emissions under Category 15: Investment of Scope 3 are known as the most significant matter of consideration for financial institutions. With its awareness of the importance of reduction of GHG emissions from the portfolio, KBank joined the Partnership for Carbon Accounting Financials (PCAF) in 2022 to adopt the calculation standard for financial institutions' assets to use in evaluating GHG emissions of industries in the portfolio, and for continual consultation with PCAF experts.

Comparison of scope 3 GHG emission category 15: Investment in 2021 and 2022

Sectors	2021*				2022			
	Scope 1&2		Scope 3**		Scope 1&2		Scope 3**	
	Absolute GHG emissions (Tonnes of CO ₂ equivalent)	Weighted score of data quality***	Absolute GHG emissions (Tonnes of CO ₂ equivalent)	Weighted score of data quality***	Absolute GHG emissions (Tonnes of CO ₂ equivalent)	Weighted score of data quality***	Absolute GHG emissions (Tonnes of CO ₂ equivalent)	Weighted score of data quality***
Power generation	4,747,667	2.8	-	-	4,375,509	2.8	-	-
Oil and gas	492,110	4.8	1,185,616	4.8	446,523	4.6	1,192,262	4.7
Coal	106,118	2.3	755,571	2.3	86,292	2.1	618,692	2.2
Total	5,345,895	-	1,941,187	-	4,908,324	-	1,810,954	-

Remarks:

* Financed emissions in 2021 were restatement from previous disclosure in KBank's TCFD Report 2021. This results from the change of calculation approach with lower data quality score to approach with higher data quality score as per PCAF standard and change of emission factor source as stated under "About This Report" section to be the same approach with calculation of 2022 data for comparability principle.

** Scope 3 GHG emission of borrowers and investees reported only oil & gas, mining, transportation, construction, buildings, materials, and industrial activities sectors as per requirement of PCAF standard for financed emissions for report published in 2023 onwards.

*** The scores of data quality were calculated in accordance with PCAF's calculation standard and reports of financed emissions (Highest quality = 1, Lowest quality = 5).



Scope 3 Greenhouse Gas Emissions from KBank's Loan and Investment Classified by Types of Assets and Sectors with High GHG Emissions

Types of assets/sectors	Portfolio allocation	Absolute GHG emissions (Tonnes of CO ₂ equivalent)		Weighted score of data quality* (Highest quality = 1 Lowest quality = 5)		Emissions Intensity** (Tonnes of CO ₂ equivalent to Baht 1 million of investment or loan)
		Scope 1&2	Scope 3***	Scope 1&2	Scope 3***	
By asset classes						
Corporate Bond	100% of corporate bond, equity and commercial loan	88,292	160,586	4.5	2.7	1.0
Equity		60,041	8,861	2.3	4.3	6.5
Commercial Loan		8,804,803	6,752,015	4.7	4.8	5.6
	Total	8,953,136	6,921,461	4.7	4.7	5.3
By sectors						
Agriculture		305,332	-	5.0	-	-
Aluminium		24,036	36,260	4.3	4.3	-
Coal		86,292	618,692	2.1	2.2	-
Concrete		405,223	104,137	4.9	4.9	-
Real estate		70,724	-	4.8	-	-
Iron and steel	100% of commercial loan	124,243	178,510	5.0	5.0	-
Oil and gas		446,523	1,192,262	4.6	4.7	-
Power generation		4,375,509	-	2.8	-	-
Transportation		1,080,342	463,895	4.7	4.7	-
Other sectors****		1,886,579	4,158,258	4.8	3.1	-
Total		8,804,803	6,752,015	4.7	4.8	5.6

Remarks:

* Data quality score was calculated according to PCAF standard for financed emissions.

** Emission intensity was calculated based on recommendation from Task Force on Climate-related Financial Disclosures (TCFD) using methodology for "Carbon Footprint" which are total GHG emissions for a portfolio normalized by the market value of the portfolio, expressed in metric tonnes CO₂e per million Baht loan/invested.

*** Scope 3 GHG emission of borrowers and investees reported only oil & gas, mining, transportation, construction, buildings, materials, and industrial activities sectors as per requirement of PCAF standard for financed emissions for report published in 2023 onwards.

**** Other sectors are automotive and parts, chemical and chemical products, commerce agriculture, commerce consumer, commerce industrial, communication, construction, construction materials other, digital and technology, electronic & appliances, entertainment, fashion, financial institute, food and beverage, furniture & wood, hardware, hotels and restaurants, industrial agriculture, other metals, packaging and printing, pharmaceutical & hospital, services, and etc.

Sustainability Financing and Investment

1. Green Loans, totaling Baht 31,222.61 million

1.1 Green Loans for Corporate Customers

Loans for Corporate Customers	Product Description	Outstanding Loans (MB)
Loans for Domestic Renewable Energy	Loans provided to Domestic Renewable Energy including Solar energy, Biomass energy, Waste-to-energy, etc.	6,731.87
Loans for Overseas Environmental Projects	Loans for Overseas Environmental Projects including Equipment purchase for solar power plants, Pollution prevention and control to minimize air pollution from power plants, Energy Efficiency Improvement, etc.	2,535.47
Loans for Large-scale Property Projects with Environmentally Friendly Concept	Loans for large-scale property projects with environmentally friendly concept, e.g., Eco-system, Eco-plex projects and green buildings in accordance with the standards of Leadership in Energy and Environmental Design (LEED) of the United States Green Building Council (USGBC)	4,241.48
Loans for Energy and Environmental Conservation	KBank has provided loans with special interest rates for projects such as energy-saving loans, improvement of systems and operational processes to reduce energy consumption in business premises, solar rooftop installation, renewable energy consumption in business operations, building renovation for energy conservation.	2,401.93
Loans for Electric Vehicles	Auto loans for hybrid and electric vehicles	1,723.88
Loans for supporting bio-, circular and green (BCG) economy	Loans for Alternative Energy, Products, Production Technologies and Production Processes with Environmental Efficiency and/or Improvement to Promote Circular Economy, and Sustainable Management of Garbage and Waste Certified with Environmental Standards such as, biofuels production plants, Treatment and disposal of non - hazardous waste by biological methods, etc.	848.15
Loans related to Sustainability Operations (Sustainability linked loans)	KBank has granted special privileges to business operators who have achieved the established targets within the loan periods, in order to inspire those operating businesses that are environmentally and societally friendly, including alleviation of pollution and efficient use of limited resources, and minimization of adverse impacts on community residents, as well as being committed to the UN Sustainable Development Goals, e.g., reduction of GHG emissions, and reduced energy and natural resource consumption.	1,391.22
Total green loans for corporate customers		19,874
Total corporate loans		880,000 (2.26%)



Green Loans, totaling
Baht

31,222.61
million

Lower GHG emissions following domestic and large-scale property projects with environmentally friendly concept:

723,695
tonnes of CO₂ equivalent

which is equal to social cost avoided Baht

1,359.95
million*.



* Social cost avoided was calculated according to Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide. Interim Estimates under Executive Order 13990, by Interagency Working Group on Social Cost of Greenhouse Gases, United States Government. Please find the details in "About This Report" section.



1.2 Green Loans for SME Customers

Loans for SME Customers	Product Description	Outstanding Loans (MB)
Loans for Energy and Environmental Conservation	KBank has provided loans with special interest rates for projects such as energy-saving loans, improvement of systems and operational processes to reduce energy consumption in business premises, solar rooftop installation, renewable energy consumption in business operations, building renovation for energy conservation.	720.44
Loans for Electric Vehicles	Auto loans for hybrid and electric vehicles	355.31
Loans for supporting bio-, circular and green (BCG) economy	Loans for Alternative Energy, Products, Production Technologies and Production Processes with Environmental Efficiency and/or Improvement to Promote Circular Economy, and Sustainable Management of Garbage and Waste Certified with Environmental Standards such as, biofuels production plants, Treatment and disposal of non - hazardous waste by biological methods, etc.	1,310.41
Total green loans for SME customers		2,386.16
Total SME loans		780,000 (0.31%)

1.3 Green Loans for Retail Customers

Projects/Products	Outstanding Loans (MB)
Projects of Loans for energy-saving homes of SCG HEIM	149.10
Auto loans for hybrid and electric vehicles	5,883.86
Green home loans	2,922.16
Loans for installation of household solar rooftops	7.33
Electric bike rental service via K+ market	EV bike rental 873 renters
Total green loans for retail customers	8,962.45
Total retail loans	703,000 (1.27%)

Remark: The above classification is in accordance with the Green Loan Principles of Loan Market Association (LMA).

2. Beyond Finance Solution

2.1 SolarPlus Project

To further implement the GO GREEN Together project, KBank has teamed with four partners, i.e., Electricity Generating Authority of Thailand, PEA ENCOM Smart INNOPOWER Company Limited, to unveil the SolarPlus project in support of the Thai public's use of clean energy. The first effort of its kind in Thailand, the SolarPlus project aims to install solar rooftops for households, free of charge, to allow the general public to generate and sell electricity. In the initial stage, the project will be implemented at Supalai housing estates. After the trial, the project aims for the installation of solar rooftops for 500,000 households within five years, and explore new opportunities in the future.

This project helps promote the creation of a practical green ecosystem, especially renewable energy, while reinforcing ESG leadership of the business group of KBank. In addition, the program is expected to help reduce GHG emissions from the use of electricity generated from raw materials, such as coal and oil that pollute the environment and communities. Another focus is to offer the public easier access to clean energy without installation costs, while reducing household energy expenses as well.

2.2 Electric Bike Rental Service

KBank has launched a rental service for EV bikes on K+ market to offer convenient access to

service users. Under cooperation with business partners, battery swapping stations have been installed at 12 KBank branches in the Bangkok metropolitan area. Additionally, KBank has joined forces with food delivery service partners, such as foodpanda, Skootar, and ShopeeFood, as well as Property and Innovation Management (PMCU), in providing electric motorcycle rental service to delivery riders. Special discounts on EV bike rental are also offered to riders so they can try using the service at affordable prices.

This project helps drive a comprehensive green ecosystem, providing the public easy access to low-carbon technologies. The focus is to reduce GHG, PM 2.5 dust and other pollutants, building a green society and economy. This cooperative effort also aims to improve delivery riders' quality of life and reduce their expense burdens, thus earning more income. Additionally, the initiative will support those who are unemployed and have no initial capital to start a new career. They can use the EV bike rental service with affordable daily rates in order to earn income, with no need to have their own bike. This initiative also helps those who want to earn extra income during their free time after their full-time job.

To further expand the green ecosystem, KBank has collaborated with additional EV bike original equipment manufacturer (OEM) partners in developing universal services, adding more battery swapping stations at KBank branches, regardless of EV bike brand or company. This measure is meant to facilitate those who want to swap batteries as well as promote substantial growth in EV bike demand.



3. Green and Sustainability Investment

In recognition of the importance of investment for the environment, KBank has issued and invested in sustainability bonds with the following details:

3.1 Issuance of Sustainability Bonds*



KBank issued sustainability bonds totaling

Baht **8,334** million,
accounting for 37 percent of KBank's
total senior bonds.

KBank issued 5-year sustainability bonds totaling USD 100 million in 2018 and publicly offering YEN-denominated and USD-denominated sustainable bonds (6 months to 3 years) totaling USD 141 million in 2022, to promote financing for environmentally and socially friendly businesses, such as loans of energy and environmental conservation loans, renewable energy loans and loans to promote employment in society. KBank is the first bank in Thailand and ASEAN to issue sustainability bonds in accordance with global standards set up by the International Capital Market Association (ICMA) and the ASEAN Green, Social and Sustainability Bond Standards of the ASEAN Capital Markets Forum (ACMF).

Operating Performance (as of September 2022)*

Bonds have been managed by lending the full amount to environmental and social projects approved by the Board of Directors, based on their environmental and social promotion, and benefits in other fields, as follows:

1. Four environmental projects:

1.1 Two solar energy projects and one waste-to-energy project having a total production capacity of 227 megawatts and generating electricity of 381 million kilowatt-hours

1.2 One large-scale property project with an environmentally friendly concept and design (Green Building), which takes into account efficient use of resources, energy and environment, and is expected to be certified with Gold/Platinum level of Leadership in Energy and Environmental Design (LEED) by the United States Green Building Council (USGBC) and Platinum level of WELL Building Standard (WELL) by the International WELL Building Institute (IWBI), upon its construction completion and opening in 2024

2. Three social projects

2.1 Two projects promoting employment generation and supporting SMEs and retail shops in communities, which have extended loans to 1,856 retail customers

2.2 One project supporting access to essential services, which has extended loans to 307 retirees

* Details of the sustainability bond reports and external reviews can be found at KBank's website: <https://www.kasikornbank.com/en/sustainable-development/sustainability-bond/Pages/Sustainable-Bond-Report.aspx>

3.2 Investment in Bonds for the Environment, Society and Sustainability



KBank's investment in sustainability bonds totaled

Baht **28,663** million,

accounting for 7.7 percent of total investment in bonds of KBank.

KBank's total investment in sustainability bonds amounted to Baht 28,663 million, to support fund raising for projects that are environmentally friendly and energy saving, and for development and promotion of sustainability, with the following details:

3.2.1 Investment in Green Bonds

KBank has invested in green bonds for wind energy and clean transportation projects. These bonds have been certified by internationally accepted standards, namely the ASEAN Green Bond Standards (ASEAN GBS) and International Capital Market Association Green Bond Principles (ICMA GBP), as well as the Climate Bond Standard (CBS).

3.2.2 Investment in Sustainability Bonds and Sustainability-Linked Bonds

KBank has invested in sustainability bonds related to social and economic development, and promotion of environmental conservation. These bonds have been certified by the ASEAN Green, Social and Sustainability Bond Standards (ASEAN ESG), International Capital Market Association Green and Social Bond Principles and Sustainability Bond Guidelines (ICMA ESG), International Capital Market Association Sustainability-Linked Bond Principles and LMA's Green Loan Principles (LMA GLP).

3.3 Issuance and Underwriting of Green Bonds

3.3.1 Issuance of Short-term Bonds based on Thai Overnight Repurchase Rate (THOR)

KBank was an underwriter of "Unsecured THOR-Linked Floating Rate Debentures of PTT PLC No. 1/2021 Tranche 1 due 2023", which is the first private business to issue THOR-linked bonds as part of KBank's plan to assist in Thai money market development in line with The Bank of Thailand's policy.

3.3.2 Issuance of Risk-hedging Bonds linked with ESG targets

With the aim of achieving financial market development based on ESG principles to inspire business operations towards sustainable growth, KBank has teamed with Thai Life Insurance PLC and KASIKORN ASSET MANAGEMENT Co., Ltd. to launch Thailand's first risk-hedging bonds based on THOR Overnight Index Swaps (THOROIS), with the total value of Baht 1,500 million. The ESG features allow the counterparties to receive additional returns through ESG-Linked OIS, provided that certain ESG investment criteria are met. This transaction, therefore, is consistent with KBank's business operations that are based on the principles of a Bank of Sustainability, with our endeavour of supporting customers through our leadership in offering environmentally friendly products and services under good corporate governance.



3.3.3 Green Bond Underwriting

KBank has assisted our customers in transitioning to the net zero economy via underwriting of bonds for environmental conservation, as follows:

- Co-underwriting of “Green Debentures of B.Grimm Power PLC No. 1/2021 Tranche 2 due 2026” with the value of Baht 3,000 million, with the purpose of replacing the company’s budget that had been used to invest in renewable energy generation, including solar energy projects (Dau Tieng 2 and Phu Yen TTP) and a wind energy project (Bo Thong Wind Farm).
- Co-underwriting of “Green Debentures of SPCG PLC No. 1/2021 due 2024” amounting to Baht 1,500 million, with the purpose of investing in solar energy generation and/or replacement of debenture issuer’s budget that had already been used to invest in a solar power plant in Japan.

3.3.4 Underwriting of Sustainability-Linked Bonds

KBank has cooperated with our customer to undertake important sustainable development in Thailand’s capital market via our advisory service for a sustainability-linked bond (SLB) project and our participation in the underwriting of three tranches of SLBs totalling Baht 10,000 million of Indorama Ventures PLC. It is the largest SLB issued in Thailand and the first offered to both institutional and high net worth investors. The product is a financial tool that is suitable for the issuer and investors. The different structure of these SLBs compared with the previous interest rate adjustments is an additional condition that all tranches must purchase Energy Attribute Certificates (EAC) or voluntary carbon offsets that will promote the sustainability commitment and showcase innovations to the Thailand capital market.



4. Environmental and Sustainable Funds, with Net Asset Value of Baht 16,091.61 million

Environmental and Sustainable Funds*		
Projects/Products	Details of Products	Net Asset Value** (MB)
K-Climate Transition Fund ⁽¹⁾	The K-Climate Transition Fund is dedicated to awareness of climate change issues, focusing on alleviation of environmental problems and climate impacts, while offering opportunities to earn satisfactory long-term returns from diverse businesses across the globe. The fund believes that business having awareness of environmental issues and social responsibility will have sustainable performance. Investment is made in various selected industries with growth potential amid losses caused by climate change and decarbonization.	2,154.00
K-CHANGE Fund ⁽²⁾	The K-CHANGE Fund invests in businesses that have positive impacts on the world. Its investments are placed in global stocks via the master fund: Baillie Gifford Positive Change Fund – Class B accumulation (GBP) that selects 25-50 companies having high growth potential and the capability to create positive impacts in four major areas, namely social and educational equality, natural resources and environment, healthcare and promotion of quality of life, and assistance for economically underprivileged people (Base of the Pyramid).	13,313.80
K-SUSTAIN Fund ⁽³⁾	The K-SUSTAIN Fund is Thailand's first sustainability fund that focuses on generating profits from stocks that are positively or negatively affected by the transition towards sustainable business operations. The fund invests via JP Morgan Funds – Multi-Manager Sustainable Long-Short Fund, Class JPM S2 (perf) (acc) – USD, which is focused on sustainability megatrends in five business categories: energy transition, health and wellness, empowerment, resource efficiency and technology for sustainability.	268.57
KTHAICGRMF ⁽⁴⁾	The KTHAICGRMF is focused on investment in companies with good corporate governance and are certified as member of the Thai Private Sector Collective Action Against Corruption (CAC). Good corporate governance may be considered from CG Scoring by the Thai Institute of Directors or other related agencies.	355.24
Total NAV of Environmental and Sustainable Funds*		16,091.61

* Environmental and sustainable funds by KASIKORN ASSET MANAGEMENT

** NAV represents the value of trading funds via the channel of KBank only.

(1) Total NAV of K-Climate Transition Fund is Baht 2,200.57 million.

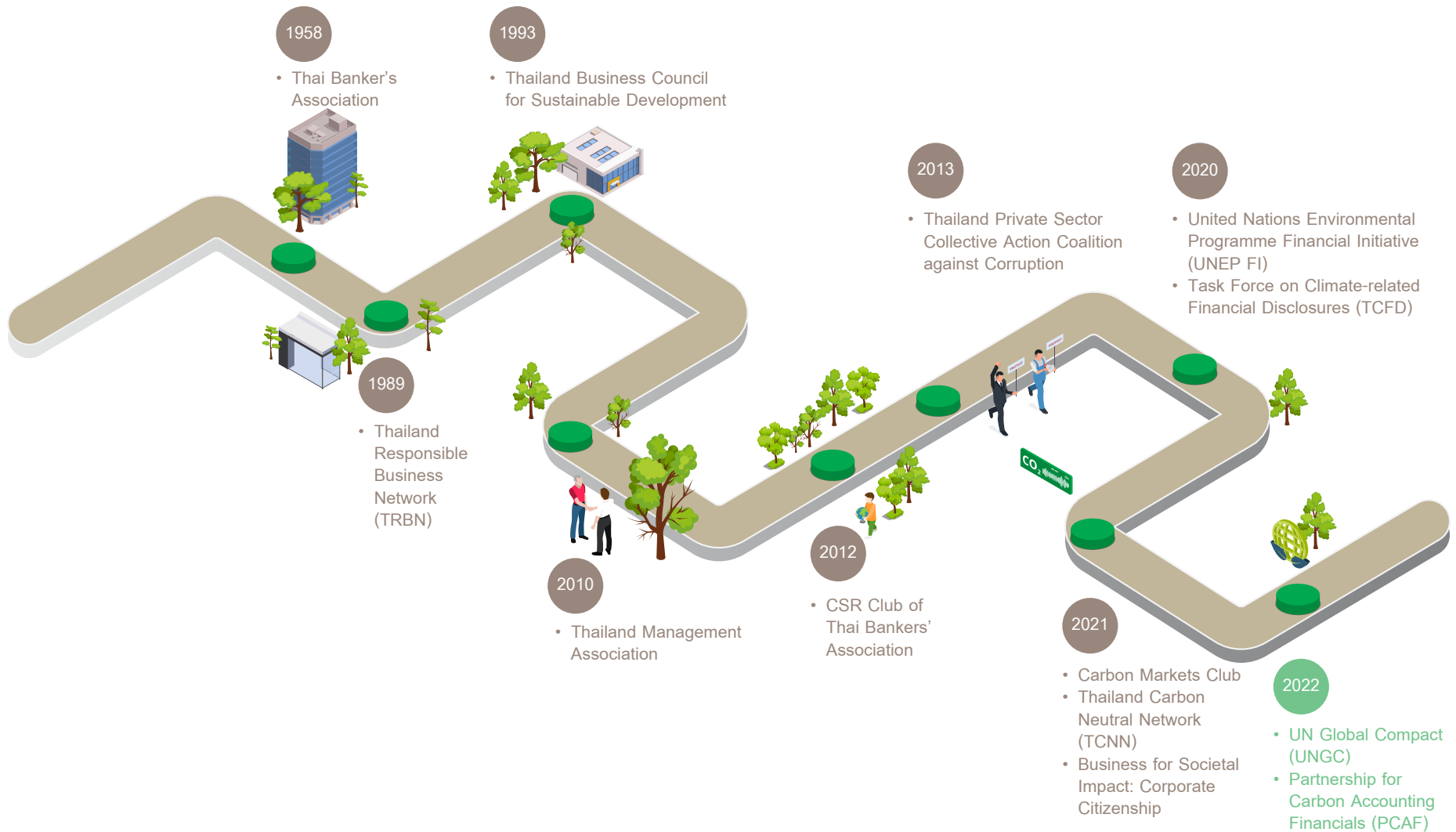
(2) Total NAV of K-CHANGE Fund is Baht 17,832.63 million.

(3) Total NAV of K- SUSTAIN Fund is Baht 276.02 million.

(4) Total NAV of KTHAICGRMF is Baht 392.18 million.

ESG Collaboration

KBank has entered into membership of various organizations established for economic and social benefits, and has adopted their policies for implementation within the Bank. We have taken part in developing work systems with those organizations, and have employed knowledge, experiences, and lessons learnt shared with them to drive forward our organization. Our executives have been appointed directors and members of agencies and organizations related to enhancement of the financial institution system and sustainable development. These organizations and agencies include the following:



Activities to Communicate Sustainable Development to Stakeholders



KBank joined a special seminar, "BOT Financial Landscape Consultation Session: New Landscape of the Thai Financial Sector".

KBank attended the Bank of Thailand's seminar, "BOT Financial Landscape Consultation Session: New Landscape of the Thai Financial Sector", wherein KBank's Chief Executive Officer gave a special presentation and joined a wrap-up session of seminar content and opinions towards the BOT Financial Landscape Consultation Paper.



TBA announced the ESG Declaration to drive an environmentally friendly economy towards sustainable development.

The Thai Bankers' Association (TBA) assigned KASIKORNBANK PCL and Bank of Ayudhya PLC. to take the role of Lead Facilitator in driving sustainable development operations of the Thai banking sector, with key missions including preparation of the ESG Declaration and development of impact assessment tools under the ESG Declaration, in order to define the directions and operational guidelines of the sector. The ESG Declaration was jointly announced in August 2022.



KBank's CEO gave a special briefing, Turning Point...New Potential of the Thai Economy, at the ESG Forum hosted by Prachachat Turakij Newspaper and Prachachat Turakij Online.

KBank's Chief Executive Officer gave a special briefing titled, "Turning Point...New Potential of the Thai Economy", at the ESG Forum hosted by Prachachat Turakij Newspaper and Prachachat Turakij Online to share viewpoints on the current Thai economic situation.

Customer Engagement

In 2022, KBank promoted customer engagement in multiple patterns, including:

- Corporate customers:** Relationship Managers held talks with customers to inform them of KBank's policies and directions, and to consult about guidelines of greenhouse gas management; the information gained would be used for planning of credit portfolio and determination of future financing guidelines.
- SME customers:** Knowledge was provided via numerous channels, namely:
 - Facebook K SME: in topics, such as knowledge of solar panel installation, sustainable reduction of business costs, 8Rs, circular economy, green label for exports; total views amounted to 1,995,825.
 - Website of KASIKORN RESEARCH CENTER: in topics, such as Carbon Border Adjustment Mechanism (CBAM), Thailand's carbon credit market and opportunities of the business sector; total views amounted to approximately 13,750.



- Seminars:** KBank and TGO hosted a seminar on adaptation towards low-carbon business operations in the net zero era for medium and large business operators to create awareness of business transformation.



- Retail customers:** Knowledge dissemination was made through diverse channels, as follows:
 - TikTok, Instagram and Twitter of KBank Live: in topics, such as knowledge of carbon dioxide, 1 Day of Green Spirit, First Step to Next Year's Green Target and energy-saving homes; total views amounted to more than 1,790,400.
 - Dissemination of knowledge on global warming via online media, e.g., Solar Energy Ecosystem with total views of more than 3,505,000, and KBank ESG Strategy 2023 concerning KBank's ESG operations and future work plans, with total views of around 15,464,000.

- On the occasion of World Environment Day, an activity was held under the Go Green Together project to promote an environmentally friendly way of life via KBank Live Facebook, with total views of more than 6 million. The proceeds from the campaign, in the amount of Baht 1 million, were donated to Wat Pa Si Saeng Tham Foundation's "Solar Fund 77 Provinces 77 Hospitals".



KBank's representatives joined with other agencies to act as speakers and share experiences and knowledge on global warming and sustainable financing, for example:



- Special presentation titled, “The Role of Finance for Sustainability”, at The Road to Green Financing seminar held by the Thai Institute of Directors, and participation in a talk titled, “The Journey to Net Zero”, to share with the audience KBank’s operations based on ESG principles, which have been emphasized from the level of the Board of Directors and concretized as a specific project for sustainability management, with measurable goals to reflect KBank’s role in and commitment to implementing green finance.



- Presentation titled, “How to foster more effective collaboration between the private sector and the financial market to scale up sustainable financing as businesses adjust to environmental risks in Thailand”, at the Sustainable Thailand 2022 event organized by the Office of the Securities and Exchange Commission, United Nations and Government Pension Fund to share the ESG concepts of KBank, especially with respect to the environment in internal management and cooperation with other organizations.



- Participation in a talk titled, “Accelerating Decarbonization in Thailand: Start Today to Find New Business Opportunities”, at an online seminar of Techsauce x PTT Expresso – Decarbonization: The Huge Upcoming S-Curve, which was in line with KBank’s guidelines to eliminate GHG emissions from KBank’s operations and portfolio.



- Presentation titled, “BOT Capacity Building TCFD Workshop”, arranged by the Bank of Thailand, UK Government and EY Corporate Services Ltd. (Thailand) to share experiences related to assessment and analysis of climate-related risks and opportunities, operational structure and strategies, and establishment of metrics under the TCFD framework, so that participating financial institutions could incorporate climate issues in their risk factors.



Cooperation with Partners to Alleviate Climate Change Impacts

Cooperation with Domestic Agencies

- KBank has joined with the Thai Bankers' Association (TBA) to drive forward sustainable issues of the banking sector. As one of the leaders in this effort, KBank has been responsible for the formulation and announcement of the ESG Declaration, preparation of tools to measure results, and the Industry Handbook.
- KBank has represented TBA in the Thailand taxonomy working group of the Bank of Thailand to share opinions and recommendations on the draft standards for economic activity classification that takes environmental issues into account.
- KBank took part in a project to promote the business sector's reduction of GHG emissions via the science-based target (SBT) of 2022, held by the Center of Excellence for Eco-Energy, Faculty of Engineering, Thammasat University, and the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO).
- KBank has participated in the Climate Action Leading Organization under cooperation of the TGO and United Nations Framework Convention on Climate Change (UNFCCC) to affirm its commitment to attaining leadership in greenhouse gas management.

Cooperation with International Agencies

- KBank attended the Validation Workshop on the Stockholm+50 Thailand National Consultation to share viewpoints and recommendations on Thailand's consultation report related to environmental operations to enhance sustainable development. The event was convened by the United Nations on the occasion of the 50th anniversary of the United Nations Conference on the Human Environment and hosted by the Government of Sweden with support from the Government of Kenya.
- KBank's representative participated in the ABAC-SFDN Roundtable as a panelist in the topic of "Leveraging Public-Private Sector Collaboration to Promote Sustainable Finance". The event was organized by the APEC Business Advisory Council (ABAC), Asia-Pacific Financial Forum (APFF), Sustainable Finance Development Network (SFDN), APEC Business Advisory Council (ABAC) Thailand and Thai Bankers' Association with the aim of forging cooperation of the public and private sectors to discuss guidelines for APEC members to benefit from the SFDN in order to expand access to sustainable financial services, in conformity with the agenda and timelines as established by APEC.
- KBank has cooperated with the Agence Francaise de Developpement (AFD) under the Green Building Project to offer loans to business operators for transforming their buildings into green buildings to reduce energy use and minimize global warming. Special loans under the K-Green Building Program have been granted for this purpose. In addition, seminars have been held to disseminate knowledge and advice on energy saving buildings to business operators.
- KBank has joined with the Global Green Growth Institute to conduct feasibility studies of projects that invest in the 'circular economy' and use of environmentally friendly energy with new technologies, as well as development of lending to projects with limited access to funding sources.



About This Report

Environmental Aspect Information

The environmental aspect information in this report covers activities considered by KBank to have significant impacts on the environment, and has been compiled by KBank that produce environmental impacts. The environmental aspect information comes from different sources, e.g., recording gauges, accounting evidences, operating processes, and data evaluation on quality principles.

Energy

Total energy consumption consists of non-renewable energy, including electricity and energy from fuel combustion – and renewable energy, including solar power as well as the amounts of bio-diesel and bio-gasoline in the fuel ratio. The information is derived from accounting data, meter readings and energy unit conversion based on the annual energy report of Department of Alternative Energy Department and Efficiency.

Water

Water management involves water from external sources, recycled water, discharge and reused water. Evaluation of water utilization efficiency and risk from different water sources is in place. Water from external sources is used for KBank's activities. The information is extracted from the accounting data.

Waste

Waste management covers total waste generated through KBank's operations and activities. The quantity of waste refers to the quantity of waste generated through KBank's operations and activities, and the quantity of waste recorded in this report was based on valid estimation of the quantity of municipal solid waste from Rat Burana Building, Phahon Yothin Building, Chaeng Watthana Building, KBTG Building and KBank Learning Center in Bang Pakong, and based on theoretical estimation of waste generation from other buildings apart from the aforementioned.

Greenhouse Gas Emission

This exhibits greenhouse gas (GHG) emissions from operations or activities of KBank, calculated in compliance with the report, Intergovernmental Panel on Climate Change (IPCC) guidelines and carbon footprint calculation guidelines of Thailand Greenhouse Gas Management Organization (Public Organization).

1. Report Boundaries

- 1.1 Direct emissions (Scope 1) occur through operating processes and activities under KBank's monitoring, control and management, including fuel or natural gas combustion and the leakage of methane gas from septic tank and refrigerant leaks only, and excluding GHG emission from chilled water of branches located in department store.
- 1.2 Indirect emissions (Scope 2) occur mainly from the amount of electricity bought from external sources for KBank's operations, including power directly purchased from Metropolitan Electricity Authority and Provincial Electricity Authority and indirectly from lessors.
- 1.3 Other indirect emissions (Scope 3) occur from KBank business travel by taxicab, water withdrawal and investment only.

2. Report on Intensity

- 2.1 The calculation of Scope 1 GHG emissions is based on fuel consumption (by weight or quantity), e.g., the quantity of oil or natural gas x emission factor and the leakage of methane gas from septic tank and refrigerant leaks.
- 2.2 The calculation of Scope 2 GHG emissions is based on the quantity of purchased electricity x emission factor.
- 2.3 The calculation of GHG emissions incurred indirectly through other means (Scope 3) is based on KBank business travels from road and acquisition of tap water x emission factor.
- 2.4 The calculation of GHG emissions incurred indirectly through Bank's investment (Scope 3 category 15: Investment) is based on Bank's Commercial loan, Corporate Bond, and Equity which covered 100% of total loans and investment from the mentioned asset class in 2022.



3. Greenhouse Gas Emission

The GHG emission report covers CO₂, CH₄, N₂O, HFCs, PFCs and SF₆, calculated and illustrated in the form of carbon dioxide equivalent (CO₂e), indicating Global Warming Potential (GWP) as designated by IPCC.

4. Emission Factor

4.1 Scope 1 and 2 GHG emissions: Based on the reference rates of the IPCC and Thailand Greenhouse Gas Management Organization (Public Organization) as well as fuel heat rate of the Department of Alternative Energy and Efficiency

4.2 For scope 3 emissions category 15: Investment, emission factors per energy source are from Thailand Greenhouse Gas Management Organization (Public Organization). Emission factors per energy consumption or production capacity are sourced directly from the report of organization within portfolio. And emission factors for the sector per unit of revenue and asset are sourced from PCAF web-based emission factor database.

5. Assessment Method

5.1 Based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard Revised Edition and corporate carbon footprint assessment of Thailand's Greenhouse Gas Management Organization (Public Organization), Fourth Revision, December 4, 2018

5.2 Calculation of decline in GHG emissions resulting from the use of financial products and services via digital channels based on the Attributional approaches on Guidelines for Assessing the Contribution of Products to Avoided Greenhouse Gas Emissions (ILCA 2015)

5.3 Calculation of Scope 3 (Category 15: Investment) are calculated based on PCAF's methodology by determining the proportional share of outstanding amount of loans and investments of the financial institution over the company/project value with the amount of GHG emission from the borrower, investee, and project.

The amount of GHG emissions from the borrower, investee and project could be estimated from 3 main approaches respectively depending on availability of data as follows:

1. Option 1: reported emissions
2. Option 2: physical activity-based emissions for example energy consumption
3. Option 3: economic activity-based emissions

PCAF : The general approach to calculate financed emissions

$$\text{Financed emissions} = \sum_i \text{Attribution Factor}_i^* \times \text{Emission}_i$$

$$*\text{Attribution Factor}_i = \frac{\text{Outstanding amount}_i}{\text{Total equity} + \text{debt}_i}$$

(i = Borrower or investee)

6. Assumption of GHG

Business travel by land transport to carry out KBank businesses, including taxi travels based on the proportion of NGV and LPG consumption of the number of participating taxis registered with the Department of Land Transport and the distance of the trips.

7. Calculation of Social Cost Avoided

Social Cost Avoided are calculated based on Interagency Working Group on Social Cost of Greenhouse Gases, United States Government methodology by determining the total avoided emissions from the green loans and the estimated annual social cost of carbon (SC-CO₂) with discount rate at 3% which adjusted for inflation to 2020 dollars using the annual GDP Implicit Price Deflator values in U.S. Bureau of Economic Analysis. For the reference of the estimated annual SC-CO₂ values from 2020 – 2050: https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

$$\text{Social Cost Avoided} = \text{Total avoided emissions} \times \text{Estimated annual social cost of carbon}$$



Assurance Statement



LRQA Independent Assurance Statement

Relating to KASIKORNBANK PUBLIC COMPANY LIMITED's TCFD Report for the calendar year 2022 (1st January 2022 – 31st December 2022)

This Assurance Statement has been prepared for KASIKORNBANK PUBLIC COMPANY LIMITED in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

LRQA Group limited was commissioned by KASIKORNBANK PUBLIC COMPANY LIMITED (KBank) to provide independent assurance on its data and information TCFD Report 2022 ("the report") using AccountAbility's AA1000AS v3, where the scope was a Type 2 engagement, and the assurance criteria below¹.

A moderate level of assurance and materiality of the professional judgment of the verifier has been used for assuring the report. The one exception is the direct and energy indirect GHG emission data where a high level of assurance and 5% materiality has been applied. Our assurance engagement covered KBank's operations and activities in Thailand and specifically the following requirements:

- Evaluating the reliability of data and information for only the selected environmental and social indicators listed below;
 - GRI 305-1: Direct GHG emissions (scope 1)²
 - GRI 305-2: Energy indirect GHG emissions (scope 2)
 - GRI 305-3: Other Indirect GHG emission (Cat. 6 – business travel by Taxicab and Cat. 15 investments only)

Our assurance engagement excluded the data and information of KBank's operations and activities outside Thailand as well as suppliers, contractors and any third parties mentioned in the report.

LRQA's responsibility is only to KBank. LRQA disclaims any liability or responsibility to others as explained in the end footnote. KBank's responsibility is for collecting, aggregating, analysing, and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of KBank.

LRQA's Opinion

Based on LRQA's approach

- the direct and energy indirect GHG emissions data in the report are materially correct; and nothing has come to our attention that would cause us to believe that KBank has not:
 - met the requirements above
 - disclosed reliable performance data and information for the selected indicators
 - covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a combined level of assurance.

Note: The extent of evidence-gathering for a moderate level of assurance engagement is less than for a high level of assurance engagement. Moderate level assurance engagements focus on aggregated data whilst high levels of assurance checking source data from sites.

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Auditing KBank's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Sampling of evidence presented at KBank's head office in Bangkok to confirm the reliability of the selected indicators. The extent of evidence sampled for the selected indicators reflected the level of assurance applied.

¹ <https://www.globalreporting.org>

² GHG quantification is subject to inherent uncertainty.



Observations

Further observations and findings, made during the assurance engagement, is:

- Reliability: Data management systems are properly defined for the selected GRI indicators. However, we believe that KBank should disclose GHGs emission related to energy imported from leasers in the future.

LRQA's standards, competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification and Sustainability report verification are the only works undertaken by LRQA for KBank and as such does not compromise our independence or impartiality.

Dated: 26 May 2023

LRQA Lead Verifier

On behalf of LRQA (Thailand) Limited
No.9, G Tower Grand Rama 9, FL. 30, Room H14,
Rama 9 Rd., HuayKwang, Bangkok, 10310, THAILAND
LRQA reference: BGK00000907A

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Certain statements shown in this report are forward-looking statements in respect of the financial position or the performance of KASIKORNBANK PUBLIC COMPANY LIMITED (“KBank”). KBank has prepared such forward-looking statements based on several assumptions, and has relied on financial and other information available from public sources as of the date such statements were made. Statements containing words such as “expect”, “believe”, “estimate”, etc. and other similar expressions, are considered as forward-looking statements which involve uncertainties and are subject to changes at any time due to future events, including but not limited to, changes in global/national economic, political and regulatory environment. Accordingly, the readers or the recipients of information shall carefully review this report and make their own independent decision as well as thoroughly evaluate such fact or information which may have changed prior to making any investment or entering into any transaction.



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