



**KASIKORNTHAI**

# KBank's TCFD Report 2021

Task Force on Climate-related  
Financial Disclosures



ธนาคารกสิกรไทย  
开泰银行 KASIKORNBANK



บริการทุกระดับประทับใจ

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# 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.

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 26<sup>th</sup> UN Climate Change Conference of the Parties (COP 26) held at the end of 2021, around 450 financial institutions that command approximately USD 130 trillion (approximately Baht 4,259 trillion) granted their approval in supporting clean technologies, including renewable energy, and declined to provide financial support to industries that are consuming fossil fuels, with the aim to achieve the Net Zero target.

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



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.

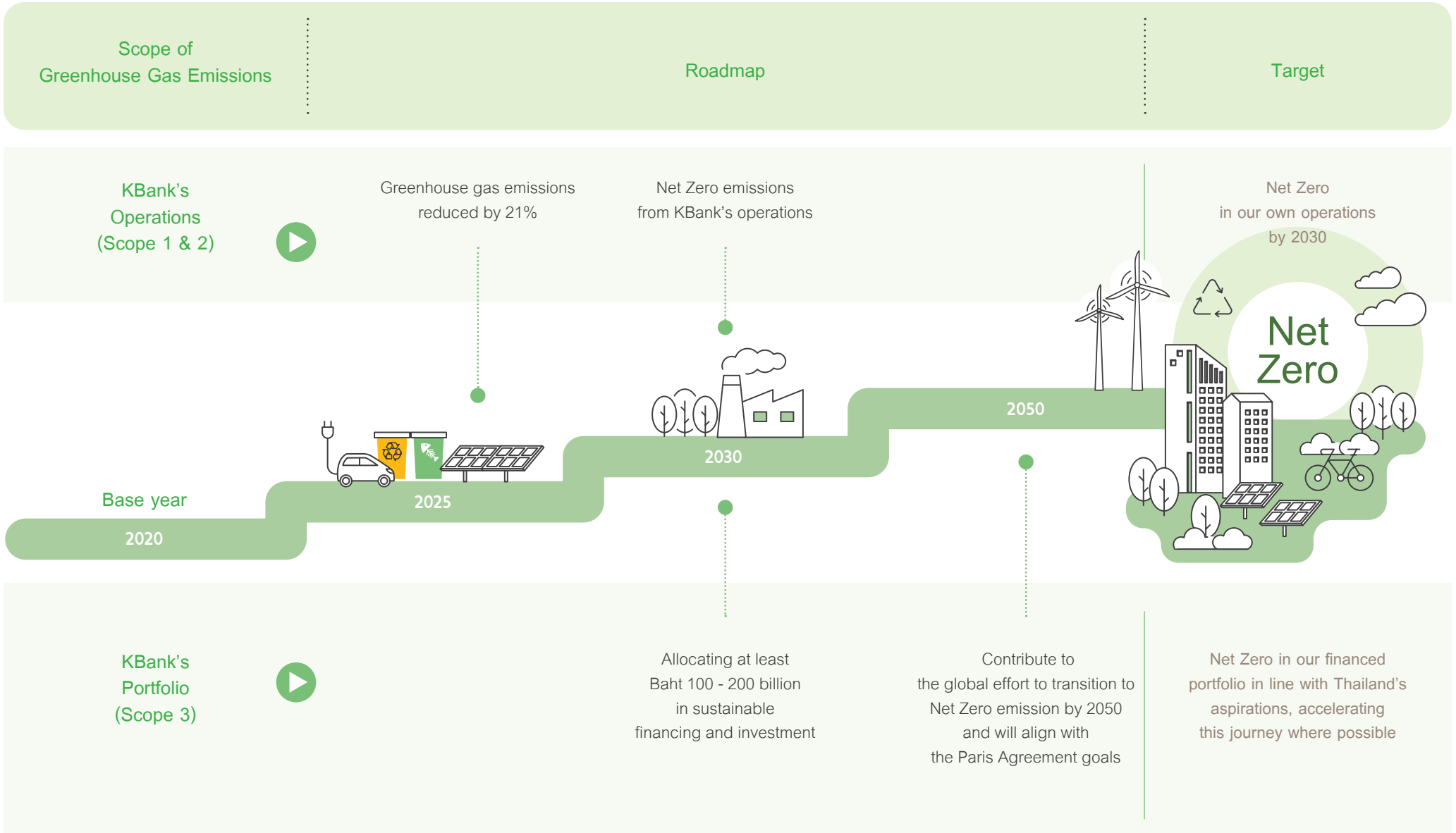
4

We commit to becoming Net Zero in our own operations (Scope 1, 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.

\* 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.

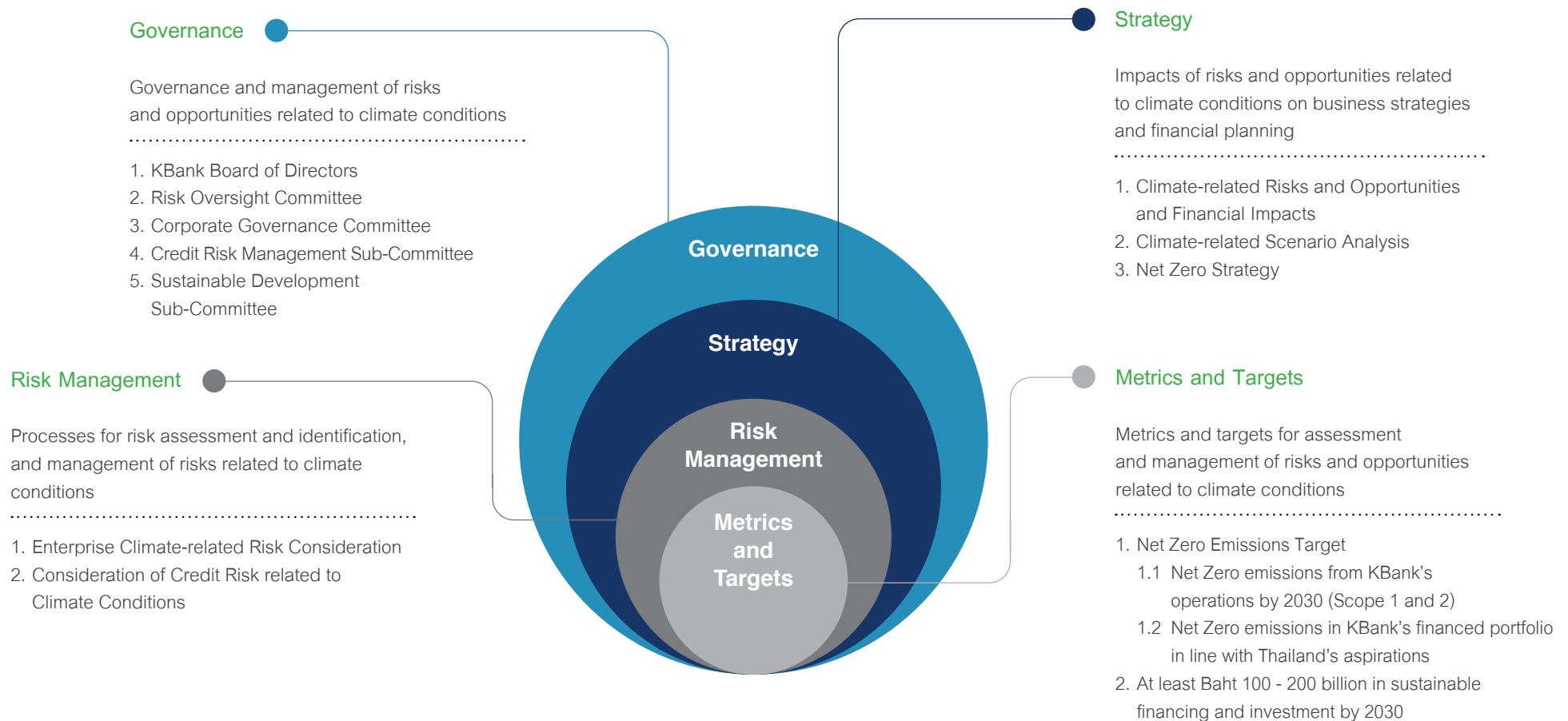
Scope 2: Energy-indirect emissions including an organization's purchased energy such as electricity, heat and steam.

# A Path to Net Zero Emissions



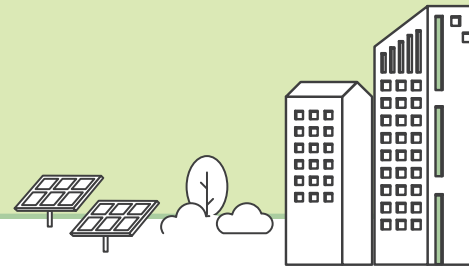


## Core Elements of Task Force on Climate-related Financial Disclosures



\* 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



## Governance

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

## Governance Structure

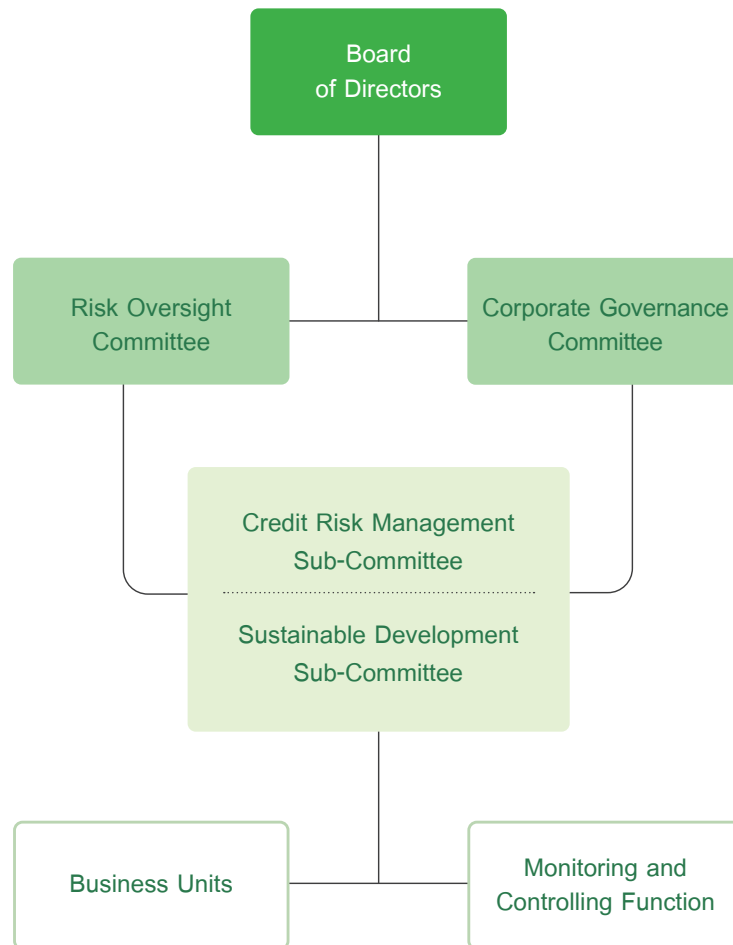
Recommended disclosures

- 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.

KBank Board of Directors' role and duty are to manage KBank's business operations. The Board's decisions are independent, taking into account the highest benefit of KBank and stakeholders. Every year, the Board reviews and approves the Vision, Core Values and operational strategies. The Board also approves strategic directions and policies of KASIKORNBANK FINANCIAL CONGLOMERATE, reviews the annual business plans and budgets, and monitors KBank Management in effectively carrying out actions that are in line with designated policies, corporate strategy and business plans in accordance with related laws and regulations, and the United Nations' Sustainable Development Goals and Paris Agreement. As evidence of our responsibility towards the environment, society and governance, KBank's structure, policies and management with respect to climate change have been set up as part of the sustainability operational processes, as follows:



## Climate-related Risks and Opportunities Governance



### Board of Directors

- Approving risk management policy, frameworks, risk limits 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, monitoring and undertaking sustainable development and governance

### Credit Risk Management Sub-Committee

- Determination of ESG credit policy and processes, and update of the policy and processes

### Sustainable Development Sub-Committee

- Considering and approving sustainable development frameworks and action plans
- Considering and approving policies, goals, strategies and targets related to sustainable development operations
- Overseeing and monitoring sustainable development operations
- Considering sustainable development communications 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 plans

### Monitoring and Controlling Function

- Determination of environment and social management as agreed
- Reporting to Corporate Governance Committee



The Board of Directors approves business strategies, targets and policies that embrace sustainable development operations. The Board also approves risk management policies and frameworks, and acceptable risk limits and scopes that include risks and opportunities related to the environment, society and governance (ESG), as well as impacts of climate-related risks, which are subject to annual review. The Board of Directors has assigned to the Chief Executive Officer the role of Chief Environment Officer, based on KBank's goal of being an environmental stewardship to create Net Zero society, and setting targets of sustainability operations for the Chief Executive Officer, top management, and operating level to ensure that the goal will be achieved.

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.

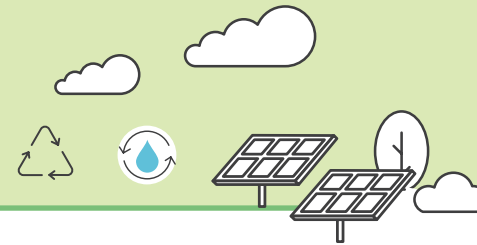
The Corporate Governance Committee oversees sustainable development operations in the aspects of environment, society and governance, and reviews and advises for appropriate improvements for reporting to the Board of Directors. The Committee also provides recommendations for consideration of projects 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 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 greenhouse gas emissions in KBank's portfolio, in conformity with the responsible lending guidelines. The Credit Risk Management Sub-Committee holds meetings on a monthly basis.

The Sustainable Development Sub-Committee's duty is 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.



# Strategy



## 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

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

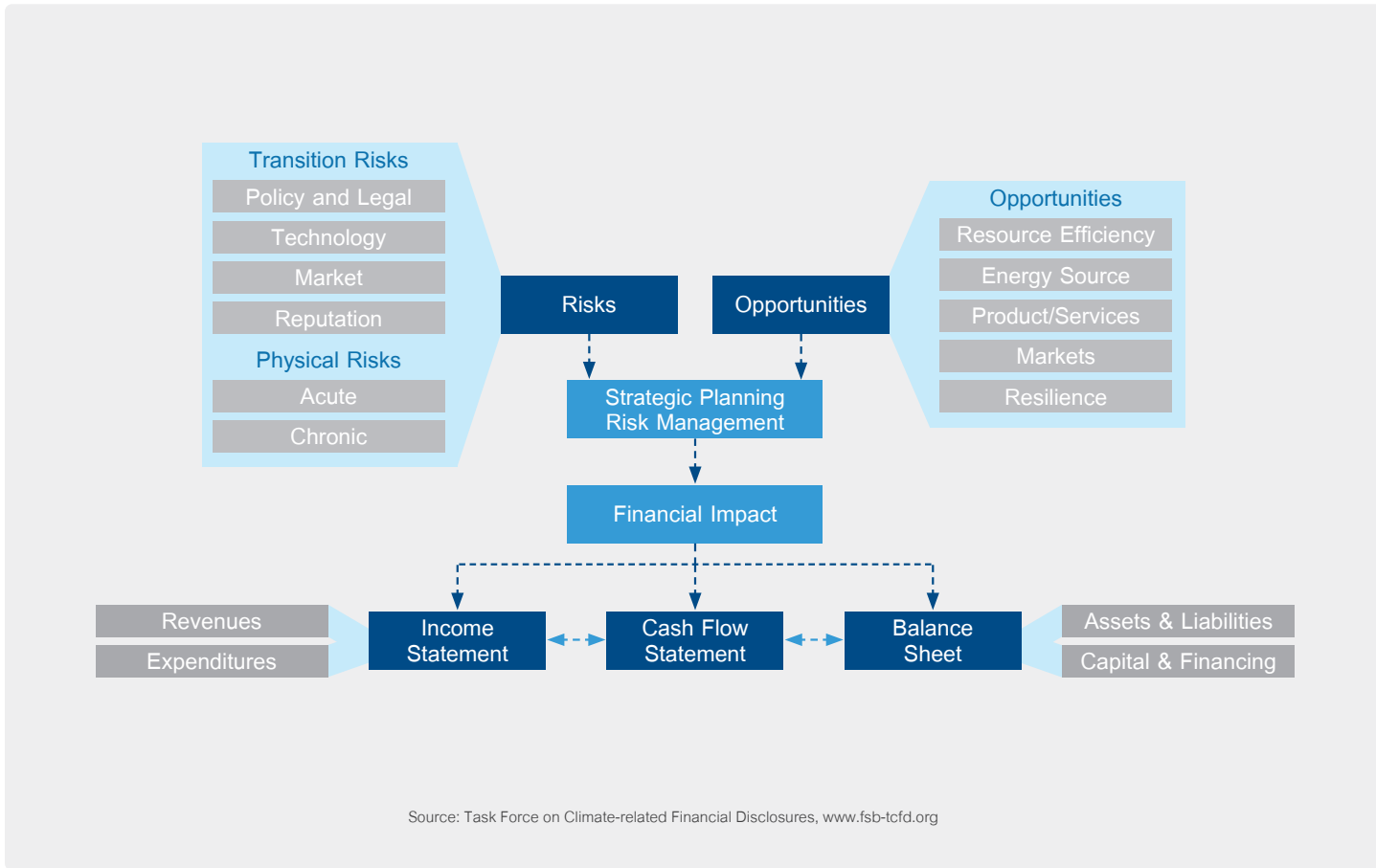
KBank has announced the Net Zero Commitment with the aim of Net Zero in KBank's operations (Scope 1 & 2) by 2030. KBank is committed to achieving Net Zero in our financed portfolio in line with Thailand's aspirations, accelerating this journey where possible. To this end, KBank plans to revise our portfolio 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 fossil fuel and related sectors, and also sectors with significant environmental and social impacts.\* Additionally, KBank has added risks and opportunities arising from climate change as part of the risk management processes, including risk identification, risk assessment, risk monitoring and control, and risk reporting.

\* Remark: More details of the policy can be found on KBank's website: <https://www.kasikornbank.com/EN/IR/CorporateGovernance/transparency/Pages/esg-credit-policy.aspx>





## Identification of Climate-related Risks and Opportunities and Financial Impacts



KBank has analysed climate-related risks and opportunities and important financial impacts, as follows:



### Risk Analysis

Including transition risk arising from changes in policies and regulatory requirements, and changes in technologies and markets, for example, impacts of the carbon credit policy on the business sector, and physical risk arising from climate change, for example, impacts of drought on farm products



### Opportunity Analysis

Including opportunity arising from resource efficiency, energy source, products/services, markets and resilience



## Analysis of Climate-related Risks and Opportunities and Financial Impacts on Banking Business

### Climate-related Risks and Financial Impacts

Climate-related Risks and Financial Impacts are challenging the business and banking sectors, and affecting their profitability, competition, 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.

	Risks	Definitions of Risks	Impacts on KBank Businesses	Time Frames of Risks
Transition risks arising from changes in policies and regulatory requirements, and changes in technologies and marketing	Risk related to Policy and Legal Aspect	Non-compliance with laws or legal stipulations  More stringent trend of laws and regulations related to the environment, e.g., carbon tax, environmental measures causing trade barriers	<ul style="list-style-type: none"> <li>Rising business costs of KBank</li> <li>Write-off and depreciation of assets, due to customers' inability to adapt to regulatory changes</li> </ul>	Short-Long Term  Medium-Long Term
	Risk related to Technology Aspect	Technology development in transition to low greenhouse gas emissions, e.g., production technologies using renewable energy sources, energy storage technologies, energy efficiency enhancement technologies	<ul style="list-style-type: none"> <li>Write-off and depreciation of assets</li> <li>Technology changes leading to increased investment costs</li> <li>Falling demand for goods with high greenhouse gas emissions, adversely affecting customers' income and repayment capabilities</li> <li>Rising funds for research and development</li> </ul>	Medium-Long Term
	Risk related to Market Aspect	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"> <li>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.</li> <li>Write-off and depreciation of assets</li> </ul>	Medium-Long Term
Physical risks arising from climate change	Reputation Risk	Lending to businesses that are not environmentally friendly, pressures from stakeholders, e.g., customers and investors	<ul style="list-style-type: none"> <li>Declining confidence of stakeholders</li> <li>Reduced customers' use of KBank services, affecting KBank revenues</li> </ul>	Short-Long Term
	Acute Natural Disasters	Droughts and floods that tend to occur more often and with increased severity	<ul style="list-style-type: none"> <li>Losses to assets of customers and banks</li> <li>Business interruptions</li> <li>Rising costs and expenditures for prevention of and recovery from impacts of natural disasters</li> </ul>	Medium-Long Term
	Chronic Natural Disasters	Rising global temperatures, weather fluctuations, higher sea levels	<ul style="list-style-type: none"> <li>Increased investment in research and development</li> <li>Write-off and depreciation of assets</li> </ul>	Long Term



## 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 greenhouse gas 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.

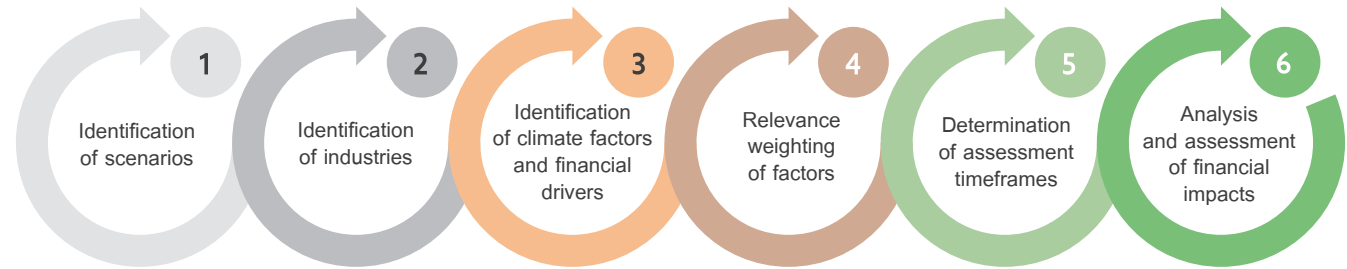
Opportunities	Definitions of Opportunities	Opportunities or Benefits on KBank Businesses
Resource Efficiency	Efficient consumption of energy and resources, e.g., water recycling, use of energy-saving devices, construction of environmentally friendly buildings	<ul style="list-style-type: none"> <li>Reduction of KBank's operating costs through strategic planning to enhance energy efficiency and minimize greenhouse gas emissions</li> <li>Increase of value of assets that are environmentally friendly</li> <li>Enhancement of employees' quality of life and livelihoods</li> <li>Reinforcement of positive image of KBank</li> </ul>
Energy Source	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	
Products/Services	<ul style="list-style-type: none"> <li>Development of financial products and services to support environmentally friendly businesses</li> <li>Development of products that are beyond financial services to minimize impacts of climate changes</li> </ul>	<ul style="list-style-type: none"> <li>Income generation from financial products and services in support of environmentally friendly businesses</li> <li>Generation of new income from products that are beyond financial services</li> <li>Expansion of business opportunities, e.g., manufacturing of electric vehicles, establishment of carbon market, emission trading platform, carbon token</li> </ul>
Markets	<ul style="list-style-type: none"> <li>Market expansion with financial support that is environmentally friendly</li> <li>Creation of new market with products and services that are beyond financial services</li> </ul>	<ul style="list-style-type: none"> <li>Expansion of database to include customers acquired from new businesses that are beyond financial services</li> <li>Increase of competitiveness</li> <li>Risk diversification for KBank's financial assets</li> </ul>
Resilience	Self-adjustment to climate change	<ul style="list-style-type: none"> <li>Review of business strategies to focus on management of the environment and climate conditions</li> <li>Analysis of climate-related risks and business opportunities</li> <li>Arrangement of operational structure, development of employee potential and establishment of data storage system for climate-related management</li> <li>Enhancement of KBank's market value and reputation</li> </ul>

## 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.

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 impact financial risks of KBank and our customers under diverse scenarios. Focus has been placed on risks arising from changes in regulatory policies and regulations, and changes in technologies and markets amid the transition towards a low carbon economy (transition risk). The analysis processes consist of the following:

### 1. Processes of Climate-related Financial Analysis



#### 1.1 Identification of scenarios for analysis:

- 1) Well-below 2 Degrees Celsius Scenario: signifying efforts to minimize the impacts of climate change in accordance with the goal to limit global warming to less than 2 Degrees Celsius
- 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 Degrees Celsius
- 3) Business as Usual Scenario: signifying the normal amount of greenhouse gas emissions, where in global warming is 3.7 Degrees Celsius

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

#### 1.3 Identification of factors: Climate factors and financial drivers have been identified for each type of power plant to study the relevance of impacts between these factors

- 1) Climate Factors: for example, carbon credit price, future allocation of energy consumption, government subsidy, carbon storage technology, potential of energy storage system, electricity price setting mechanism, changes in government policies and regulatory requirements, and changes in technologies and markets
- 2) Financial Drivers: electricity price, electricity generation capacity, fuel cost, carbon credit price, investment in carbon technology that will drive revenues and costs, including operating expenses and investment expenses

#### 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 1) Well-below 2 Degrees Celsius Scenario, 2) Net Zero Scenario, and 3) Business as Usual Scenario in each stipulated timeframe to come up with impacts on revenues and costs of each type of power plant

## 2. Results of Climate-related Financial Analysis

Net financial impacts under the Well-below 2 Degrees Celsius Scenario can be summarized, as follows:



Natural Gas  
Power Plants

Natural Gas Power Plants are indicated 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.



Hydro  
Power Plants

Hydro Power Plants are indicated 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  
Power Plants

Biomass Power Plants are indicated limited opportunities in the short, medium and long terms; revenues risk would be in line with energy consumption that is expected to rise; however, electricity prices would tend to decrease.

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 Degrees Celsius, net financial impacts can be summarized in terms of risks or opportunities of each type of power plant in a similar manner to net financial impacts under the Well-below 2 Degrees Celsius Scenario that signifies efforts to minimize impacts of climate change in accordance with the goal to limit global warming to less than 2 Degrees Celsius. However, there will be some differences with respect to the levels of impacts. For example, revenues of natural gas power plants would fall, due to reduced demand for electricity (lower than the expected demand under the Well-below 2 Degrees Celsius Scenario), and costs would be higher, due to carbon credit prices that are expected to rise (lower than the expected prices under the Well-below 2 Degrees Celsius Scenario). Therefore, net impacts indicate medium or high risk levels in the long term.

In this regard, KBank will expand the analysis scope of risks, opportunities and impacts related to climate conditions under different scenarios (Climate-related Scenario Analysis) to cover other industry groups in accordance with their priorities. The analysis results will be used in decision-making of KBank's credit portfolio management and financial planning. In addition, these analysis results will be incorporated in the processes of strategic planning and assistance for customers' Net Zero transition journey through the design of green financial products and services, for example, renewable energy loans.

# Net Zero Strategy

## Target

Environmental stewardship to promote Net Zero society

## Commitment

We are determined to protect the environment and minimize impacts of climate change

### Net Zero Emissions from KBank's Operations (Scope 1 & 2)

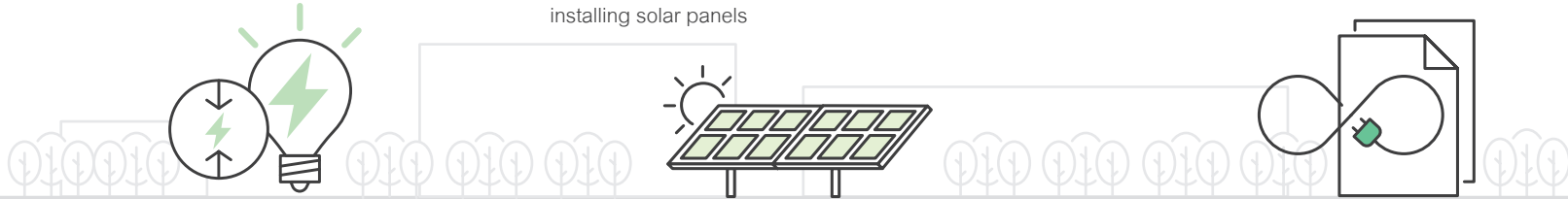
Scope 1  
1

- Replacement of KBank's internal-combustion engine vehicles with electric vehicles
- Replacement of diesel fuel and gasoline with biofuels
- Compensation for carbon dioxide emissions via purchase of carbon credits from the Carbon Capture and Storage Project



Scope 2  
2

- Use of energy-saving technologies
- Use of electricity generated by renewable sources by installing solar panels
- Purchase of Renewable Energy Certificate (REC)



### Net Zero Emissions in KBank's Financed Portfolio (Scope 3)

Scope 3  
3

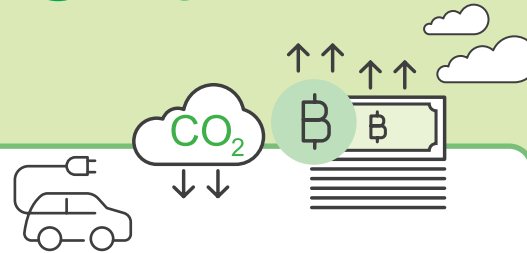
- Minimizing lending to projects with high greenhouse gas emissions
- Increasing financial support to environmentally friendly projects or projects with no or low greenhouse gas emissions
- Presenting new styles of products and services that are beyond financial services to assist customers during the transition period towards Net Zero



### Establishment of Management Foundation

- Preparation of a climate database
- Promotion of knowledge to increase the management potential related to greenhouse gas for employees and stakeholders
- Study of international principles, standards and practices of sustainable development
- Communications to promote staff understanding of practices related to sustainable development and greenhouse gas management

# 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.

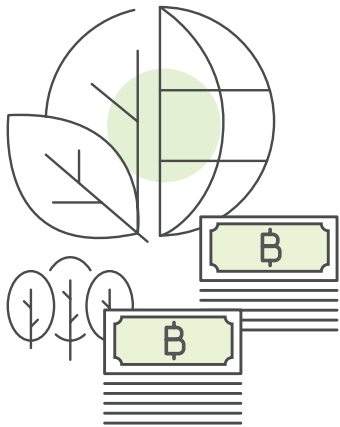
KBank has designed the processes of appropriate risk consideration to prevent and minimize business risks of customers and KBank. For the overall risks of the organization, consideration is made of transition risk that arises from policy and regulatory changes and physical risk incurred by climate change, which will directly affect KBank's major risks, for example, credit risk and operational risk. Consideration in relation to climate-related risk has been drawn in two items:





## 1. 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.

## Examples of ESG Credit Assessment to Project Finance

KBank's credit consideration includes ESG criteria and KBank's credit policy in the processes.

Examples of Project Finance are as follows:



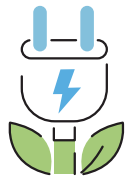
### Solar Rooftop

In line with the government's policy that promotes renewable electricity generation and the growing popularity of solar panel installation, KBank has been a part of financial supports to enhance the efficiency of a number of electricity producers nationwide. Loans have been granted to projects of electricity generation via solar energy, including solar rooftop, solar panels on the ground, and floating solar panels to sell electricity to private businesses, with total capacity of 60 megawatts. Before the loan can be approved, the project must be evaluated by KBank's ESG risk assessment to ensure that there are no serious environmental or social issues. Independent specialists are engaged to oversee the work process and establish methods for receiving and managing complaints relating to environmental and social issues, as well as to follow up on the issues with those involved.



### Solar Farm

Economic growth and trade agreements within and outside the ASEAN bloc have led to flourishing trade and industry, and rising demand for electricity consumption. In addition, each government is promoting renewable electricity generation in a drive towards becoming a low-carbon economy. KBank has been part of support for leading Thai businesses with experience and skills in electricity generation to implement large-scale solar farms in foreign countries. The solar farms are required to provide an Environmental Impact Assessment in order to design a plan to avoid a negative impact on the surrounding environment and community, as well as to regularly monitoring of the solar farms for any future negative impacts. The projects are equipped with environmental and social management at world-class standards, and have passed KBank's ESG risk assessment and credit underwriting processes based.



### Sustainability-linked Credit Facility

Financial institutions have worked together to develop the Sustainability-Linked Credit Principles, connecting businesses' sustainability goals with banks' financial assistance, to inspire them to operate environmentally and socially friendly businesses. During the credit consideration process, KBank engaged with business operators on the importance of sustainable operations, focusing on management to minimize adverse impacts caused by business operations, with respect to environmental pollution, usage of limited natural resources through the entire supply chain, impacts on community residents and human rights issues. KBank has supported large commodity enterprises that produce diverse foodstuffs and are committed to comply with the SDG, for example, easing of greenhouse gas emissions, reduced energy consumption and natural resource usage, and responsible labor management. Throughout the loan terms, special privileges have been granted for business operators that can achieve the established targets.

## 2. 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 sustainable returns to all stakeholders.

Holistic impact analysis is aimed at identifying statuses and impacts in the current time and possibilities of impacts in the future, both positive and negative, which are caused by lending to various businesses at a portfolio level. The analysis covers three aspects, namely the economy, society and environment. KBank is employing the Portfolio Impact Analysis Tool of the United Nations Environment Programme Finance Initiative (UNEP FI) in its holistic impact analysis, consisting of the following methods:

### 1. Scoping

Initial scope has been framed for large corporate customers in Thailand with KBank's financing; consideration is based on:

- 1.1 Outstanding loans: Total loans of large corporate customers account for more than 50 percent of KBank's overall credit portfolio.
- 1.2 Trends of customer segments and industries that may have significant impacts on the country
- 1.3 Potential and preparedness for self-adjustment of customer segments and industries

### 2. Understanding Thailand Context

Factors for consideration include the size of Thailand, its population, physical environment, climate conditions, types of land and land uses, biodiversity, etc.

### 3. Impact Analysis

3.1 Consideration is made at the country level of needs in 22 impact areas in accordance with the UNEP FI principles, which cover economic, social and environmental aspects.

The country level of needs in each impact area is scored from the country's operations, using different indicators; such levels range from low needs to very high needs.

3.2 The Sector Impact Map is used to analyze the relations between the types of industries and impacts on 22 impact areas in accordance with the UNEP FI principles, both positively and negatively. The types of industries producing significant impacts are identified.

### 4. Profiles

As a result of data integration and analysis, the Profiles are obtained to display the overview of impacts of lending to large corporate customers in each industry with positive and negative impact areas. KBank has prioritized the impact areas based on the following criteria:

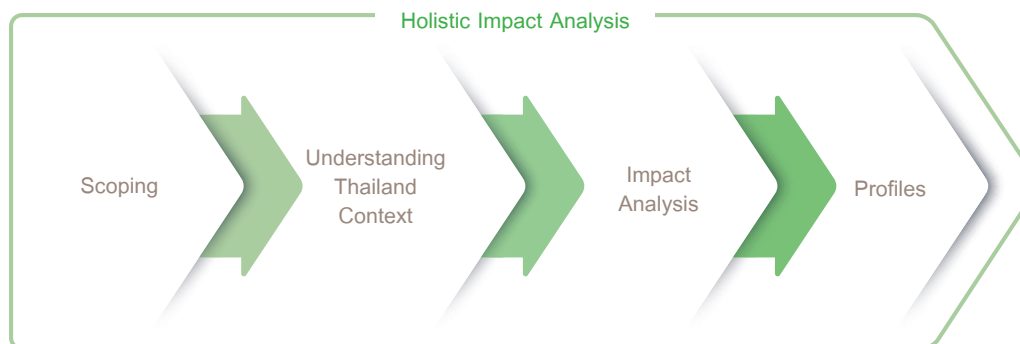
4.1 The country levels of needs from high to very high: for Thailand, the impact areas with high to very high levels are comprised of:

- Environmental aspect: climate, resource and efficiency, air, water and waste
- Social aspect: housing and employment
- Economic aspect: economic convergence

4.2 The shares of loans in different industries: In 2021, the shares of KBank's loans allocated to different industrial segments were quite similar.

4.3 Other factors for additional consideration, e.g., the country's goals and plans, data readiness, customers' preparedness, technologies and standards of each industry

### Consideration Processes for Credit Risk related to Climate Conditions





In accordance with our portfolio analysis and assessment, KBank has emphasized the issues with impacts in accordance with the UNEP FI principles, as follows:

**1. Climate:** Focus is placed on the power plant industry, which is one of the key sectors that has negative impacts on climate conditions, due to massive greenhouse gas emissions. In our credit portfolio, this industry employs a variety of production technologies, for example, natural gas, hydropower generation, coal-fired generation, solar energy and other technologies. As the original coal-fired power generation releases more greenhouse gas than other technologies, KBank has planned to revise our portfolio in line with the country's goal, referring to reduction of greenhouse gases, to minimize financing for this type of project and shift to renewable energy or alternative energy projects in order to minimize negative impacts of greenhouse gas emissions.

**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 LEED and TREES, which certify efficiency of resource and energy consumption, and environmentally friendly building designs and material selection, as well as proper water resource management.

Climate change is an urgent issue that global communities are well aware of. Thailand has submitted the Long-term Low Greenhouse Emissions Development Strategies (LT-LEDS) under the Paris Agreement (October 2021), with the purpose of reducing greenhouse gas emissions of the country and to achieve net zero emissions by 2065 in Thailand. In accordance with Thailand's target, KBank has set up the goal of net zero in our portfolio and will accelerate the parts of operations that are already viable. In 2021, initial operations were implemented, as follows:

1. Calculation of greenhouse gas emissions of each industry in KBank's portfolio in accordance with the loans that have been provided, in order to rank the industries with significant greenhouse gas emissions.

2. Study of assessment methods of each industry, which depend on the readiness of data for calculation and reference of scenario (Availability of Methodology) and the readiness of customers' data (Availability of Counterparty Data).

3. Consideration of each industry's ability to transition (Decarbonization Trend), complexity of operations and context of each industry for industry ranking.

4. Prioritization of industries to map out the strategy of portfolio transition towards net zero emissions, with focus on the industry segments with significant greenhouse gas emissions; such prioritization required discussions with customers to jointly set up the guidelines.

The study found that the first group of industries in KBank's portfolio with significant carbon emissions consists of power plants, oil and gas, and coal industry. The Bank prepared sector strategy plan and set targets for engagement strategy for offering advice to customers in a bid to jointly transition towards the net zero achievement.

#### Customer Engagement on ESG and Climate-Related Issues

As part of the ESG Risk Management Framework, KBank engages regularly with its corporate and retail customers. During the year, KBank engages formally with 35.61% of retail customers, and 53% of corporate customers on ESG and Climate-related issues.

# 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

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

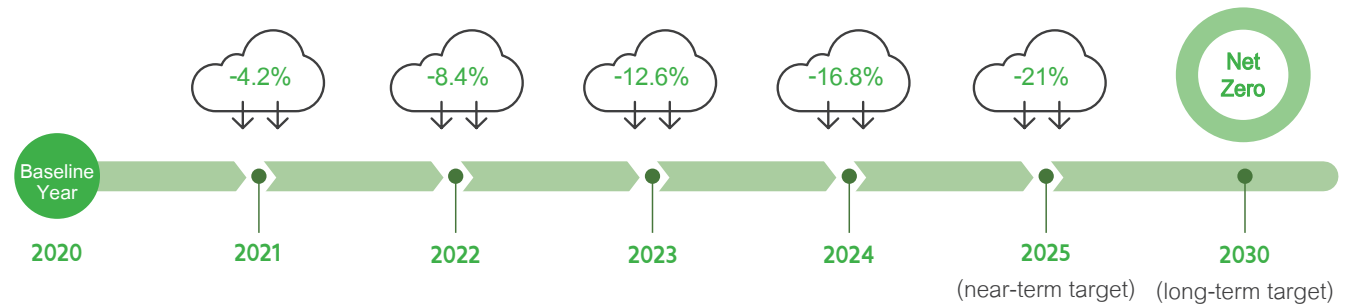
KBank has established Board of Directors KPIs based on the Balanced Scorecard as a tool for transforming the strategy into practice. Key performance indicators have been drawn up to measure success through four key dimensions, including: Finance, Customers, Internal Processes, and Learning and Sustainable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





## Metrics and Targets 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	Metrics and Long-Term Targets	2021		2022 Target
		Target	Performance	
Net Zero bank in our own operations by 2030	21% reduction of GHG emissions by 2025 (Baseline Year 2020)	4.2% reduction of GHG emissions (Baseline Year 2020)	7.79% reduction of GHG emissions (Baseline Year 2020)	8.4% reduction of GHG emissions (Baseline Year 2020)



## Environmental Performance (Scope 1 & 2)

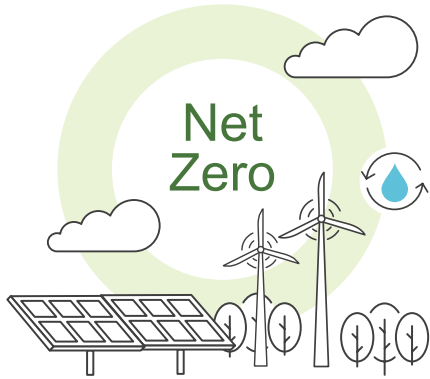
### Assessment Parameter

Baseline year	2020
Consolidation approach	Operation controls
Boundary summary	All entities and facilities either owned or under operation control
Emission factor data source	Intergovernmental Panel on Climate Change 2006 (IPCC), Thailand Greenhouse Gas Management Organization (Public Organization) (TGO), and fuel heat rate of Department of Alternative Energy Department and Efficiency
Intensity ratio	per FTE
Independent assurance	YES

Parameter	Performance 2018	Performance 2019	Performance 2020 (Baseline Year)	Performance 2021	Target 2021	% Change 2020 VS 2021 (% Change YoY)	Long-Term Target 2021 - 2030 (Baseline Year 2020)	Accumulative Performance against Long-Term target 2021 - 2030 (Baseline Year 2020)
<b>Greenhouse Gas Emission (GHG Emission)</b>								
Total Scope 1 emissions * (Tonnes CO <sub>2</sub> e)	21,160.73	21,145.20	18,727.05	15,833.59	-3.00%	-15.45%		-15.45%
Total Scope 2 ** emissions (Tonnes CO <sub>2</sub> e)	86,614.58	82,851.75	79,058.67	74,339.32	-1.20%	-5.97%		-5.97%
Total Scopes 1 & 2 emissions (Tonnes CO <sub>2</sub> e)	107,775.31	103,996.95	97,785.73	90,172.91	-4.20%	-7.79%	-42%	-7.79%
Total Scopes 1 & 2 emissions intensity (Tonnes CO <sub>2</sub> e per FTE)	3.58	3.05	2.96	2.84		-4.05%		-4.05%
Full Time Employee (FTE)	30,121	34,072	33,034	31,706				

\* In 2021, GRI 305-1: Direct (Scope 1) GHG emissions specifically for the leakage of refrigerant and fire extinguishing substances in only major buildings of KBank.

\*\* In 2021, GRI 305-2: Energy indirect (Scope 2) GHG emissions excluding GHG emission from electricity consumption of ATM outside branches as the amount of electricity consumption was not recorded from ATM's space lessors.



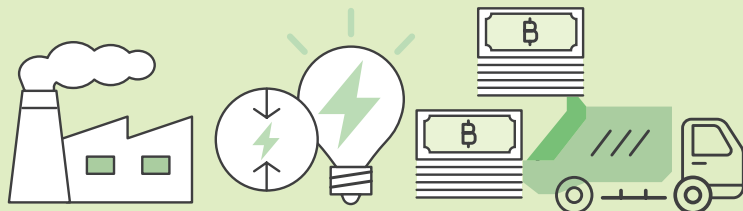
## Metrics and Targets to Achieve Net Zero Emissions in Financed Portfolio (Scope 3)

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	2021		2022 Target
		Target	Performance	
<p>Decarbonized financed portfolio emissions in line with Thailand’s ambition, and at the earliest for key material sectors by 2050 where possible</p>	<ul style="list-style-type: none"> <li>Emissions intensity of power utility sector controlled according to sector strategy and/or glidepaths*</li> <li>The proportion of loans supported to coal-fired power plants in the portfolio decreased by 70% by 2025 (Baseline Year 2021).*</li> </ul>	-	-	<ul style="list-style-type: none"> <li>Emissions intensity of power utility sector controlled according to sector strategy and/or glidepaths*</li> <li>The proportion of loans supported to coal-fired power plants in the portfolio decreased by 10% by 2025 (Baseline Year 2021).*</li> </ul>

\* New target

KBank measured its financed emissions through its lending activity using methodologies in the Partnership for Carbon Accounting Financials (PCAF) standard. The table below provides 2021 total financed emissions\* in energy sector covered 8.71% of commercial loan outstanding.



### Scope 3

Financed Absolute Emissions	
Energy Sector	(Million tonnes CO <sub>2</sub> e)
Power Utilities	2.56
Oil and Gas	0.81
Coal Mining	0.15
<b>Total Financed Absolute Emissions</b>	<b>3.52</b>

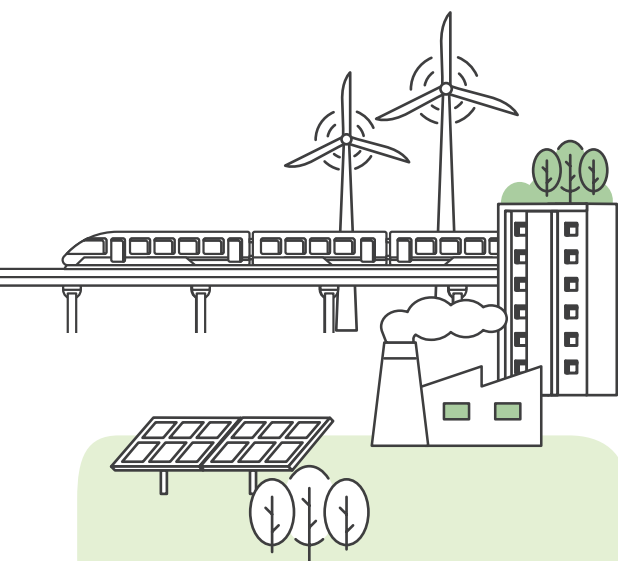
\* GRI 305-3: Other Indirect GHG emission (Category 15)





Sustainable Development Policy - Environmental Aspect	Metrics and Long-Term Targets	2021		2022 Target
		Target	Performance	
<p>Leader of innovative “Green Finance” agenda in Thailand</p>	<ul style="list-style-type: none"> <li>Allocating at least Baht 100 - 200 billion in sustainable financing and investment by 2030</li> <li>Providing financial support to green building projects to increase the proportion of loan outstanding of green building projects to total loan outstanding of real estate portfolio from 6.3% (in 2020) to 10% by 2025.*</li> </ul>	<ul style="list-style-type: none"> <li>Total megawatts (MW) 15% of domestic market share by providing various type of financial support and services to renewable energy projects in accordance with Thailand’s Alternative Energy Development Plan</li> <li>10% loan growth per year in Energy and Environmental Conservation Projects Funding</li> <li>Support Green/Social/Sustainability/ other Environmental and Society related projects via borrowing and/or via the issuance of Green/Social/Sustainability bonds with remaining outstanding of USD 100 - 200 million</li> <li>Supports renewable energy loans in the People’s Republic of China for more than 5% of the loans for corporate customers in People’s Republic of China.</li> </ul>	<ul style="list-style-type: none"> <li>Total megawatts (MW) 16% of domestic market share by providing various type of financial support and services to renewable energy projects in accordance with Thailand’s Alternative Energy Development Plan</li> <li>15% loan growth in Energy and Environmental Conservation Projects Funding</li> <li>Support Green/Social/Sustainability/ other Environmental and Society related projects via the issuance of Sustainability bonds with remaining outstanding of USD 282 million</li> <li>Supports renewable energy loans in the People’s Republic of China for 8% of the loans for corporate customers in People’s Republic of China.</li> </ul>	<ul style="list-style-type: none"> <li>Support sustainable financing and investment at least Baht 25,000 million</li> </ul>
<p>Beyond finance solutions to support decarbonization in Thailand</p>	<p>Satisfaction level of using Beyond banking solution: 80%*</p>	-	-	<p>Satisfaction level of using Beyond banking solution: 80%*</p>

\* New target



Green Loans  
for Corporate and  
Retail Customers,  
totaling Baht

**17,433.22**  
million

## 1. Green Financial Products for Corporate Customers

Domestic Renewable Energy Loans	Number of Financed Projects	Production Capacity (MW)	Outstanding Loans (MB)
Solar energy loans	29	820	3,101.5
Biomass energy loans	6	82	423
Waste-to-energy loans	4	21	805.2
Biogas energy loans	1	4	101
Wind energy loans	1	189	207.6
Total domestic renewable energy loans	41	1,116	4,638.3

Overseas Environmental Loans	Production Capacity (MW)	Outstanding Loans (MB)
Equipment purchase for solar power plants	-	530.4
Pollution prevention and control to minimize air pollution from power plants	150	192.4
Equipment purchase to minimize pollution	-	1,300
Water and wastewater disposal	-	1,040
Total overseas environmental loans	150	3,062.8

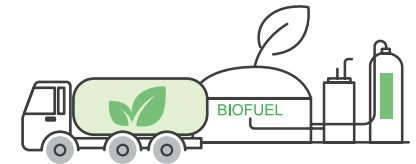
Loans for Large-scale Property Projects with Environmentally Friendly Concept	Product Details	Number of Financed Projects	Number of Building Users	Outstanding Loans (MB)
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Energy-saving buildings	Loans for large-scale property projects with environmentally 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)	9	15,450	4,361.5
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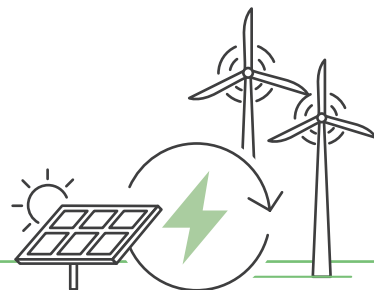
Lower greenhouse gas emissions following domestic and overseas renewable energy loans and large-scale property projects with environmentally friendly concept

**715,604** tCO<sub>2</sub>e



Loans related to Sustainability Operations	Product Details	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
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Loans related to sustainability operations	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 greenhouse gas emissions, and reduced energy and natural resource consumption.	1	1,200
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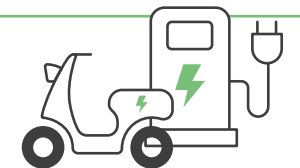


Alternative Energy Loans	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
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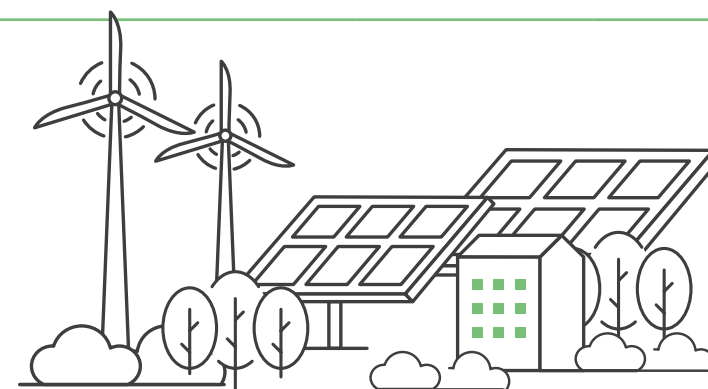
Ethanol production plants	3	100
Plants of other biofuels	9	14
<b>Total alternative energy loans</b>	<b>12</b>	<b>114</b>

Products to Promote Electric Vehicles	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
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Auto loans for hybrid and electric vehicles	62	120
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Loans for Energy and Environmental Conservation	Product Details	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
Projects of improvement of systems and operational processes to reduce energy consumption in business premises	KBank has teamed up with the Federation of Thai Industries (FTI) and the Thai Energy Services Company Association (ESCO) to provide support for replacement of equipment and processes in business premises to reduce energy consumption.	5	94
Projects of solar rooftop installation for renewable energy consumption in business operations	KBank has provided loans with special interest rates for those interested in solar rooftop installation for reduced energy consumption and for use as clean energy to reduce greenhouse gas emissions. These projects are under partnership with various organizations, e.g., PEA Solar Hero Application project in cooperation with the Provincial Electricity Authority, available for both businesses and households.	168	1,754
Project of building renovation for energy conservation	KBank has cooperated with the Agence Francaise de Developpement (AFD) to provide knowledge and guidelines related to building renovation for energy conservation and environmental friendliness, and offered low-interest loans and technical advice for the project.	1	250
Projects of energy-saving loans	KBank has joined hands with the Department of Alternative Energy Development and Efficiency (DEDE) to provide low-interest loans for business operators with the aim to enhance energy efficiency in various patterns, in line with the targets and conditions of DEDE.	5	47
Total loans for energy and environmental conservation		179	2,145



Loans for Sustainable Management of Garbage and Waste Certified with Environmental Standards	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
Collection of non-hazardous waste	2	3.6
Collection of hazardous waste	2	0.32
Treatment and disposal of non-hazardous waste by sanitary landfilling	7	25
Treatment and disposal of non-hazardous waste by incineration	5	11
Treatment and disposal of non-hazardous waste by biological methods	5	313
Treatment and disposal of non-hazardous waste by other methods	14	12
Treatment and disposal of hazardous waste (not including radioactive waste)	4	22
Other waste treatment activities and waste disposal services	12	44.0
<b>Total loans for sustainable management of garbage and waste, certified with environmental standards</b>	<b>51</b>	<b>430.92</b>

Loans for Products, Production Technologies and Production Processes with Environmental Efficiency and/or Improvement to Promote Circular Economy	Number of Business Operators benefitting from the projects	Outstanding Loans (MB)
Production of basic chemical products	4	7.7
Production of recycled plastic pellets	102	667
Paper recycling	10	32
Reuse of materials	14	19
Production of biological fertilizers	18	21
Production of biological plastic products	1	22
Downstream petrochemical industry	1	15
<b>Total loans for products, production technologies and production processes with environmental efficiency and/or improvement to promote circular economy</b>	<b>150</b>	<b>783.70</b>

Note: The above loan classification is in accordance with the Green Loan Principles (GLP), set by Loan Market Association (LMA).



## 2. Green Financial Products for Retail Customers

Products	Description of the products	Number of Customers benefiting from the projects	Outstanding Loans (MB)
Projects of loans for energy-saving homes of SCG HEIM	Loans have been extended for energy-saving homes built with environmentally friendly innovations.	3	43
Auto loans for hybrid and electric vehicles	The goal is to encourage people to use electric cars which are better for the environment.	507	534
Electric bike rental service via K+ market	KBank has collaborated with H SEM Motor Co., Ltd., Thailand's leading manufacturer and distributor of electric bikes, to launch a rental service for H SEM EV bikes on K+ market. Under this cooperation, H SEM Power Stations for battery swapping service have been installed at 12 KBank branches in Greater Bangkok. KBank has also joined with Property and Innovation Management (PMCU) to add more power stations and with foodpanda to offer discounts on EV bike rental via K+ market. (Service started in November 2021)	EV bike rental 99 renters	
K-Point redemption	Customers can redeem K-Point accumulated from card spending to donate to the 16 foundations for Environmental Conservation via K+Market such as Big Trees Foundation, Wildlife fund Thailand, LUPRASONG Natural Resources and Environment Conservation Center Foundation, Thai Environment Corporate Foundation, etc.	Total spending 82.05 MB	



### 3. Environmental and Social Funds

Environmental and Social Funds	Details of Products	Net Asset Value* (NAV)
K-Climate Transition Fund <sup>(1)</sup>	The K-Climate Transition Fund is Thailand's first and only fund 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.	3,485.01
K-CHANGE Fund <sup>(2)</sup>	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 companies having four major policies, namely participation with society and education, environmental responsibility, promotion of quality of life, and assistance for socially underprivileged people.	16,235.86
K Global High Impact Thematic (K-HIT) <sup>(3)</sup>	K-HIT invests via the master fund: Allianz Global Investors Fund – Allianz Thematica Share Class P (EUR) that emphasizes investment diversification in businesses consistent with four megatrends, namely urbanization, technological innovation, resource scarcity, and demographic and social change.	1,637.08
K-SUSTAIN Fund <sup>(4)</sup>	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.	387.11
Total NAV of Environmental and Social Funds		21,745.06

\* Net Asset Value is the value of buying via the channel of KBank agents only.

Net Asset Value of KASIKORN ASSET MANAGEMENT CO., LTD.

<sup>(1)</sup> A total of net asset value of K-Climate Transition Fund is Baht 3,579.30 million.

<sup>(2)</sup> A total of net asset value of K-CHANGE Fund is Baht 22,072.03 million.

<sup>(3)</sup> A total of net asset value of K-HIT Fund is Baht 1,755.62 million.

<sup>(4)</sup> A total of net asset value of K-SUSTAIN Fund is Baht 394.93 million.

## 4. Green Investment

KBank has placed importance on green investment by means of issuance and investment in sustainability bonds.

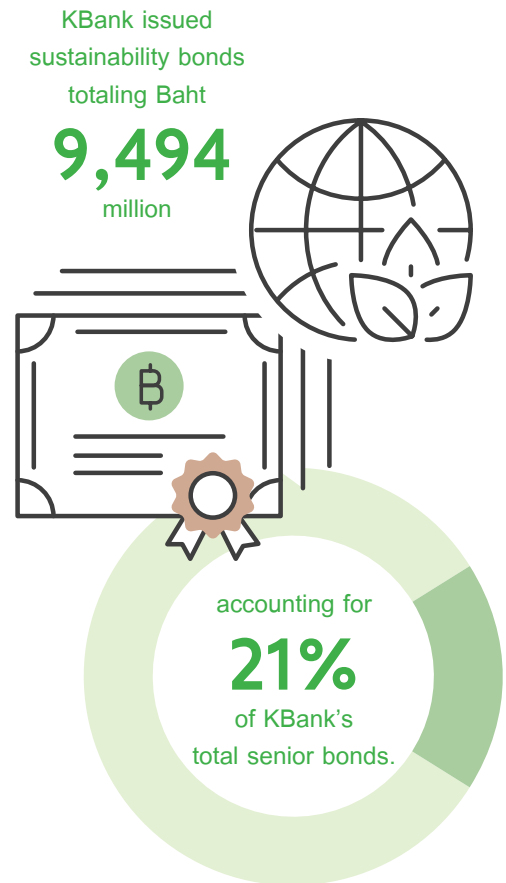
### Issuance of Sustainability Bonds\*

KBank issued 5-year sustainability bonds totaling USD 100 million in 2018 and short-term, EUR-denominated sustainable bonds (6 months) totaling EUR 155 million in 2021, 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

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, divided into 2 types of project, as follows:

1. Seven environmental projects:
  - 1.1 Five solar energy projects and one waste-to-energy project having a total production capacity of 244 megawatts and generating electricity of 440 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 8,525 retail customers
  - 2.2 One project supporting access to essential services, which has extended loans to 287 retirees



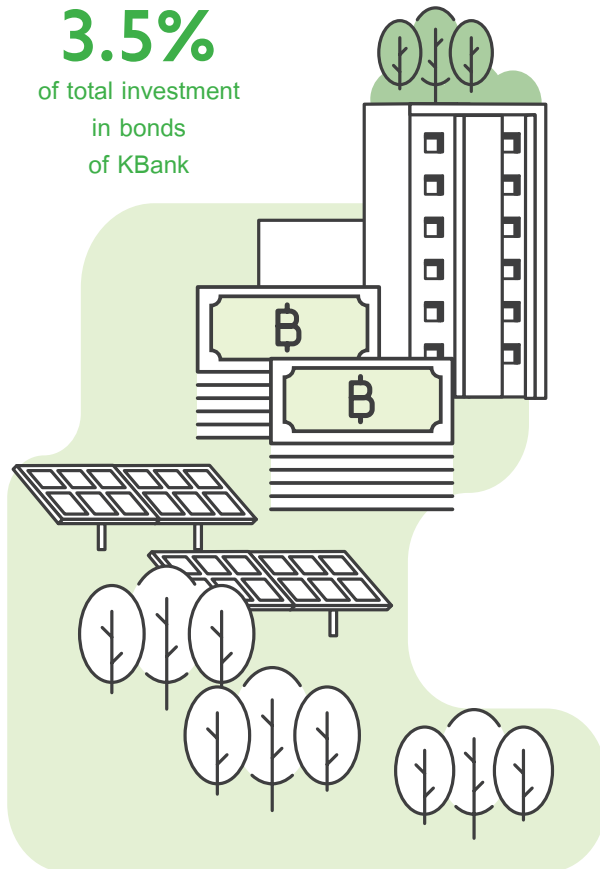
\* More details of sustainability loans and second party opinions can be found at <https://www.kasikornbank.com/en/sustainable-development/sustainability-bond/Pages/Sustainable-Bond-Report.aspx>



KBank's investment  
in sustainability bonds  
totaled Baht

**16,405**  
million

accounting for  
**3.5%**  
of total investment  
in bonds  
of KBank



## Investment in Bonds for the Environment, Society and Sustainability

KBank's total investment in sustainability bonds amounted to Baht 16,405 million, to support fund raising for projects that are environmentally friendly and energy saving, and for development and promotion of sustainability, divided into 3 types of investment with the following details:

### 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.

### 2. Investment in Social Bonds

KBank has invested in social bonds with the purpose of social development and enhancement of quality of life of community residents, especially those involved with sustainable agriculture, SMEs, businesses that are important to the economic system, for example, healthcare services, education and development of agricultural skills. These bonds have been certified by the International Capital Market Association Social Bond Principles (ICMA SBP).

### 3. 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).

## Issuance and Underwriting of Green Bonds

### 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 2022”, which is the first private business to issue THOR-linked bonds.

### 2. Issuance of Risk-hedging Bonds linked with ESG targets

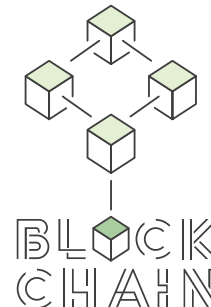
With the aim of achieving financial market development based on ESG principles to inspire business operations towards sustainable growth, KBank has teamed with Thai Life Insurance PLC and KASIKORN ASSET MANAGEMENT CO., LTD. to launch Thailand's first risk-hedging bonds based on THOR Overnight Index Swaps (THOR OIS), 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. Co-underwriting of Savings Bonds via Blockchain

KBank has recognized the importance of participation in Thailand's infrastructure development with regard to the bond market, and application of innovations for investor facilitation and increase of overall operational efficiency. Therefore, KBank has cooperated in system development and underwriting of Government Savings Bonds via blockchain in full scale for the first time in Thailand, and among the first such cases in the world. Underwriting was via the Distributed Ledger Technology (DLT) Scripless Bond under cooperation of the Bank of Thailand, Public Debt Management Office, Thailand Securities Depository Co., Ltd., Thai Bond Market Association and four underwriting banks. In 2020, KBank joined the underwriting of savings bonds in the series of ‘Kao Pai Duay Kan’, with 7-year maturity, totaling Baht 45,000 million for individual and corporate investors.

### 4. Green Bond Underwriting

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

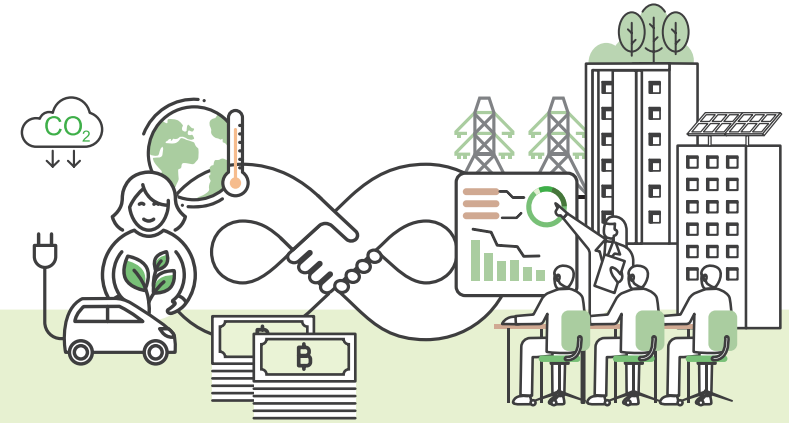


- 4.1 Co-underwriting of “Green Debentures of B.Grimm Power PLC No. 1/2021 Tranche 2 due 2026” with the value of Baht 3,000 million, with the purpose of replacing the company's budget that had been used to invest in renewable energy generation, including solar energy projects (Dau Tieng 2 and Phu Yen TTP) and a wind energy project (Bo Thong Wind Farm).
- 4.2 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.

### 5. 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.

# Additional Information



## Cooperation with Partners to Alleviate Climate Change Impacts

### 1. Cooperation with Domestic Agencies

- 1.1 KBank and the Thai Energy Services Company Association (ESCO) have promoted tangible energy conservation. ESCO and its members engage in providing comprehensive services of consultation and energy management for business operators, which serve as an important mechanism to ensure businesses that the proceeds earned from energy conservation can be efficiently used for debt repayment and enhancement of competitiveness, as well as conserving energy and preserving the environment.
- 1.2 KBank's representative was a speaker on the topic of "CO<sub>2</sub> Emission Reduction with ESCO", organized by ESCO and its members to present viewpoints related to reduction of greenhouse gas emissions, minimization of energy costs and promotion of reduced energy consumption, as well as the outlook of future technologies to reduce greenhouse gas emissions.

- 1.3 KBank's representative was a speaker at "TCFD & SGDs Workshop: ESG Risk Analysis and GHG Accounting", hosted by the Stock Exchange of Thailand to promote knowledge and in-depth understanding in regard to strategic development for sustainable businesses and information disclosure in accordance with TCFD guidelines and in line with international disclosure standards.
- 1.4 KBank and the Provincial Electricity Authority have jointly developed the PEA Solar Hero application to serve as a channel to facilitate access to renewable energy via solar rooftop installation. The application provides analysis of electricity use, advice on proper production capacity, investment types and funding sources from KBank, calculation of breakeven point, and standardized products and installers, in order to encourage households' shift to clean energy use.

### 2. Cooperation with International Agencies

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.



# About this Report

## Environmental Aspect Information

The report boundaries cover KBank's performance during January 1 - December 31, 2021.

## Assessment Method

### 1. Scope 1 and Scope 2

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).

### 2. Scope 3 (Category 15: Investment)

This exhibits greenhouse gas (GHG) emissions from financed portfolio which is known as the most significant part of financial institutions, calculated in compliance with the Partnership for Carbon Accounting Financials (PCAF) standard.

## Greenhouse Gas Emission (GHG)

The GHG emission report covers CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, calculated and illustrated in the form of carbon dioxide equivalent (CO<sub>2</sub>e), indicating Global Warming Potential (GWP) as designated by IPCC.

## Report Boundaries

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.
2. Indirect emissions (Scope 2) occur mainly from the amount of electricity bought from external sources for KBank's operations, including power purchased from Metropolitan Electricity Authority and Provincial Electricity Authority only, excluding GHG emission from electricity consumption of ATM outside branches as the amount of electricity consumption was not recorded from ATM's space lessors.
3. Other indirect emissions (Scope 3) - Category 15 Investment occur from lending activity for energy sector (Power Utilities, Oil & Gas, Coal Mining), represents 8.71% of 2021 commercial loan outstanding.

## Calculation Method

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 GHG emission factor and the leakage of methane gas from septic tank and refrigerant leaks

2. The calculation of Scope 2 GHG emissions is based on the quantity of purchased electricity x GHG emission factor
3. The calculation of Scope 3 GHG emissions - Category 15 Investment is based on PCAF methodology Option 3 economic activity-based emissions with lowest data quality to estimate the financed emissions using loans outstanding (2021), emission factor for the sector per unit of revenue (2020), and asset turnover ratio for the sector (2020).

$$\text{Financed emissions} = \sum_i \text{Attribution factor}_i \times \text{Emissions}_i \quad (\text{with } i = \text{borrower or investee})$$

$$\downarrow$$

$$\frac{\text{Outstanding amount}_i}{\text{Total equity} + \text{debt}_i}$$

## Emission Factor

### 1. Scope 1 and Scope 2

Based on the reference rates of Intergovernmental Panel on Climate Change 2006 (IPCC) and Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) as well as fuel heat rate of Department of Alternative Energy Department and Efficiency

### 2. Scope 3 (Category 15: Investment)

Based on PCAF methodology Option 3 economic activity-based emissions with lowest data quality to estimate the financed emissions, emission factor for the sector per unit of revenue and asset turnover ratio for the sector are derived from Bloomberg Terminal Database.



# Assurance Statement

## LRQA Independent Assurance Statement Relating to KASIKORNBANK PUBLIC COMPANY LIMITED's Sustainability and TCFD Reports for the calendar year 2021 (1<sup>st</sup> January 2021 – 31<sup>st</sup> December 2021)

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

### Terms of engagement

LRQA was commissioned by KASIKORNBANK PUBLIC COMPANY LIMITED (KBank) to provide independent assurance on its Sustainability and TCFD Reports 2021 ("the reports") using Accountability's AA1000AS v3, where the scope was a Type 2 engagement, and the assurance criteria below<sup>1</sup>. A moderate level of assurance and materiality of the professional judgment of the verifier has been used for assuring the reports. The one exception is the direct and 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 only and specifically the following requirements:

- Evaluating the nature and extent of KBank's adherence to the AA1000 AccountAbility Principles (2018):
  - Inclusivity, Materiality, Responsiveness and Impact.
- Confirming that the Sustainability Report is in accordance with:
  - GRI Standards (2016) and core option, and
  - GRI Financial Services Sector Disclosure.
- Evaluating the reliability of data and information for only the selected environmental and social indicators listed below:
  - GRI 302-1: Energy consumption within the organization
  - GRI 303-3: Water withdrawal
  - GRI 303-4: Water discharge
  - GRI 303-5: Water consumption
  - GRI 305-1: Direct GHG emissions (Scope 1)<sup>2</sup>
  - GRI 305-2: Energy indirect GHG emissions (Scope 2)
  - GRI 305-3: Other indirect GHG emission (Scope 3, Category 6 – business travel by taxicab and Category 15 – 8.71% of Commercial Loan Portfolio only)
  - GRI 306-3: Waste generated (2020 edition)
  - GRI 306-4: Waste diverted from disposal (2020 edition)
  - GRI 306-5: Waste directed to disposal (2020 edition)
  - GRI 403-9 Work-related injuries (absenteeism only)
  - Initiatives to enhance financial inclusions (FS7)

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 reports.

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 reports and for maintaining effective internal controls over the systems from which the reports are derived. Ultimately, the reports have been approved by, and remains the responsibility of KBank

### LRQA's Opinion

Based on LR's approach

- the direct and indirect GHG emissions data in the reports 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 environmental and social indicators
  - covered all the issues that are important to the stakeholders and readers of these reports.
- 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 check source data from sites.

<sup>1</sup> <https://www.globalreporting.org>

<sup>2</sup> GHG quantification is subject to inherent uncertainty.

### 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:

- Assessing KBank's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through interviews with external stakeholders and reviewing documents and associated records.
- Reviewing KBank's process for identifying and determining material issues to confirm that the right issues were included in their reports. We did this by benchmarking reports written by KBank and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether KBank makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing KBank's data management systems to confirm that there were no significant errors, omissions or mis-statements in the reports. 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 reports.
- Sampling of evidence presented at KBank's head office in Bangkok to confirm the reliability of the selected environmental and social indicators. The extent of evidence sampled for the selected indicators reflected the level of assurance applied.

### Observations

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

- Stakeholder inclusivity: We are not aware of any key stakeholder groups that have been excluded from KBank's stakeholder engagement process. KBank has open dialogue with all of its stakeholders, though the frequency of engagement with trade unions would benefit from more regular scheduling.
- Materiality: We are not aware of any material issues concerning KBank's sustainability performance that have been excluded from the reports. It should be noted that KBank has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management.
- Responsiveness: KBank has established and implemented processes for responding to the concerns of various stakeholder groups especially in relation to GHG emissions. For example: KBank has announced its target for Net Zero Emissions by 2030.
- Impact: KBank should further address quantitative impacts regarding stakeholder groups, as well as materiality, in future reports. For example: investments related to GHGs.
- Reliability: Data management systems are properly defined for the selected environmental and social indicators. However, we believe that KBank's future reports should extend the boundary of GHGs emission disclosure to include fugitive emissions from branch operations and energy imported by tenants.

### 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 is the only work undertaken by LRQA for KBank and as such does not compromise our independence or impartiality.

Dated: 31 May 2022

Kamiga Sukkeaw

LRQA Lead Verifier

On behalf of LRQA (Thailand) Limited  
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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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