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Second Party Opinion

Vietnam Technological and Commercial Joint Stock Bank Green Bond Framework

Nov. 27, 2024

Location: Vietnam

Sector: Diversified Bank

Alignment With Principles

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

See [Alignment Assessment](#) for more detail.

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**Medium
green**

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

Strengths

Vietnam Technological and Commercial Joint Stock Bank's (TCB) eligible green activities contribute to addressing some of the most acute environmental issues facing the country. These include carbon emissions and pollution.

Weaknesses

Despite the exclusion of direct investments in projects associated with the fossil fuel value chain, some eligible projects could use fossil fuel-based equipment. Examples include vessels used in aquaculture projects, water management, and waste treatment facilities.

Areas to watch

Broad eligibility criteria and multiple certifications and standards may lead to the selection of projects with uneven impact. For example, the broadly defined criteria in relation to livestock farming could induce land use change risks. Although this is common for frameworks with extensive lists of projects, the absence of performance thresholds for some categories limits insights on the funded projects' potential benefits. Relying on certifications in areas such as green buildings, agriculture, forestry, and resource repurposing may also raise challenges with enforcement, traceability, and gaps in certification criteria.

TCB lacks transparency in disclosing its carbon emissions and is yet to set decarbonization targets. The bank does not publish its financed emissions, limiting insights on its carbon footprint. Similarly, the bank is yet to systematically assess and report its loan book's exposure to physical climate risks.

Eligible Green Projects Assessment Summary

Over the two years following issuance of the financing, TCB expects to allocate 40% of proceeds to sustainable transportation, 20% to renewable energy, clean energy, 20% to green construction, 10% to green industries, and 10% to green agriculture.

The issuer expects to allocate 50% of proceeds to refinancing projects, and 50% to finance new projects.

Based on the project category shades of green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in TCB's green bond framework, we assign the framework the Medium green shade.

Eligible projects under issuer's green finance framework are assessed based on their environmental benefits and risks, using Shades of Green methodology.

Renewable energy, clean energy Dark to Medium green

Construction and operation of renewable energy plants/equipment

Smart grid construction and operation

Green industries Light green

Saving natural resources in industrial production

Emissions reduction

Utilization of excess heat and pressure

Renovation and construction of workspaces and factories

Provision of environmental protection and energy-efficient services Light green

Provision of energy efficiency services

Provision of environmental protection services

Sustainable transportation Dark to Medium green

Development of sustainable transportation infrastructure







Reduction of emissions from vehicles

Green construction Light green

Construction and renovation of civil constructions/industrial parks with efficient use of energy, water, and resources

Manufacturing and management of sustainable and environmentally friendly building materials

Construction and renovation of construction works to achieve one of the selected green certificates

Green agriculture	 Light green
Modern and globalized agriculture	
High-tech agriculture projects certified by the Ministry of Agriculture and Rural Development or Ministry of Science and Technology	
Clean agriculture	
Bio-agriculture	
Reduction of greenhouse gases in agriculture (low-carbon agriculture), smart adaptation to climate change	
Sustainable forestry	 Medium to Light green
Forest conservation and development	
Development of forestry economy and forest services	
Sustainable water management in urban and rural areas	 Light green
Sustainable water management in cities	
Irrigation infrastructure construction for agricultural production	
Waste treatment and pollution	 Light green
Wastewater treatment	
Waste disposal	
Pollution prevention	
Terrestrial and aquatic biodiversity conservation and climate change adaptation	 Medium green
Nature reserve construction plans	
Ecological restoration	
Prevention of natural disasters	
Recycling, reusing natural resources	 Light green
Repurposing resources	

See [Analysis Of Eligible Projects](#) for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

Company Description

Founded in 1993 and headquartered in Hanoi, TCB is one of the largest joint stock commercial banks in Vietnam, with a network of 301 branches and transaction offices across 46 out of 63 cities and provinces across the country, and 13.4 million customers as of Dec. 31, 2023.

Customers include retail banking and high net-worth individuals; small and medium enterprises (SMEs) and micro-SMEs (MSMEs); and large corporations and institutional clients.

In 2023, TCB had an operating income of Vietnamese dong (VND) 40.1 trillion (US\$ 1.6 billion) and total assets of VND849 trillion (US\$33 billion) at year-end. Corporate and retail loans accounted for 59% and 41% respectively of the loan book amounting to VND502 trillion (US\$20 billion). The bank is listed on the Ho Chi Minh City Stock Exchange, and 76% of its shares are held domestically.

Material Sustainability Factors

Climate Transition Risk

Banks are highly exposed to climate transition risk through their financing of economic activities. Banks' direct environmental impact is small compared to financed emissions and stems mainly from power consumption (e.g. data centers). Policies and rules to reduce emissions could raise credit, legal, and reputational risks for banks with large exposures to high-emitting sectors, such as oil and gas, metals and mining, real estate, or transportation. These medium- to long-term risks are significant and will be proportional to the impact of climate change on the economy. Positively, financing the climate transition offers a growth avenue for banks through lending, debt structuring, and other capital markets activities. According to the United Nations Development Program (UNDP), Vietnam has committed to reduce emissions by 43.5% against a projected business-as-usual (BAU) scenarios between 2020-2030, and to accelerate its transition to a green economy. The country aims to increase the share of renewable energy to 20% of the power generation mix by 2030 and 30% by 2045.

Physical Climate Risk

Physical climate risks will affect many economic activities as climate change will increase the frequency and severity of extreme weather events. Banks finance a wide array of sectors that are exposed to physical climate risks, exposing banks to through their financing activities. However, while climate change is a global issue, weather-related events are typically localized, so the magnitude of banks' exposure is linked to the geographical location of the activities and assets they finance. Similarly, banks' physical footprint (e.g. branches or ATMs) may also be exposed to physical risks, which may disrupt their ability to service clients in the event of a natural catastrophe, amplifying the impact on communities. Banks may contribute to mitigate the effects of physical climate risks by financing adaptation projects and climate-resilient infrastructure, as well as by investing in solutions that support business continuity in exposed geographies. According to the World Bank, Vietnam is vulnerable to floods, droughts, heatwaves, cyclones and storm surges, and rising sea levels.

Biodiversity and Resource Use

Banks contribute to significant resource use and biodiversity impact through the activities they fund or invest in. For example, bank-financed activities such as construction, agriculture and mining can have material biodiversity impacts. Vietnam's National Biodiversity Strategy (2020-2030) aims to protect 9% of terrestrial and 3%-5% of marine areas, maintain 42%-43% forest coverage, and restore 20% of degraded ecosystems by 2030. It emphasizes endangered species conservation, ecosystem

connectivity, and sustainable biodiversity use. Despite progress, challenges like habitat loss from agriculture and forestry persist (Source: NBSAP).

Access and Affordability

Banks' large impact on society and the economy stems from their role in enabling access to financial services to individuals and businesses, and in ensuring the correct functioning of payments systems, which are cornerstones of economic development and stability. In most countries, unbanked and underserved population segments are still meaningful, although the access gap is most acute in emerging economies. As financial enablers, banks have the capacity to impact a wide range of community issues by providing economically vulnerable groups with access to essential services. This may help alleviate income inequality and foster upward social mobility and it also plays a vital role in the country's economic development by financing infrastructural development projects and MSMEs' businesses. Meanwhile, market imperfections such as low competition, incomplete information, and lack of financial literacy, often result in costly alternatives for small businesses and low-income people, so ensuring affordable access to financial services, especially to the most vulnerable population, remains a challenge for the banking industry. According to the State Bank of Vietnam, as of 2022, the share of Vietnamese adults with a bank account increased to 77%, and the country also recorded one of the highest digital payment values in Southeast Asia. This follows consistent efforts to encourage citizens to open accounts. Meanwhile, the introduction of digital banking has also contributed to an expected increase in online banking penetration in subsequent years.

Issuer And Context Analysis

Eligible categories aim to address some of TCB's material sustainability factors. For instance, renewable energy, green industries, provision of environmental protection and energy-efficient services, sustainable transportation, and green construction projects aim to address climate transition risks, while other categories could prevent and control pollution, as well as manage biodiversity and resource use. On the other hand, eligible projects could potentially introduce additional issues, such as exposure to physical climate risk, as well as resource-use considerations.

Similar to some other banks in Vietnam, TCB lacks transparency on its carbon footprint. The bank only discloses its indirect emissions from business trips, which account for a minority of a financier's aggregated emissions. While TCB said that it supports the country's Green Growth Strategy and national target of net-zero emissions by 2050, the bank has not established any decarbonization targets or roadmaps for the time being. This limits insights on its sustainability efforts. In relation to its indirect exposure to climate transition risks, TCB shared that the proportion of highly carbon intensive sectors (e.g. mining, utilities, construction) accounted for 3.49% of its loan portfolio in 2023, while the largest sector was real estate (35%). Meanwhile, TCB focuses on expanding lending across sustainable transportation, renewables, and clean energy. In 2023, green credit grew to VND13.9 trillion from VND1.1 trillion in 2022, accounting for 5.2% of its loan book.

TCB is yet to systemically assess and report its portfolio's exposure to physical climate risks. The framework has several project categories exposed to physical risks, such as infrastructure construction, agriculture, forestry, and natural disaster prevention. At the project lending level, the bank integrates environmental and social risk assessment in the credit approval process to identify and manage sustainability exposure, including physical climate risks. Apart from that, TCB does not have a systematic mechanism to assess and report its portfolio's exposure to such risks, such as conducting scenario analysis or adopting the recommendations of Task Force for Climate-related Financial Disclosures (TCFD).

While the bank has measures in place to identify and manage potential impacts on biodiversity from its financing activities, it is yet to formulate a comprehensive policy on biodiversity. The framework includes eligible projects in relation to biodiversity restoration and conservation. Conversely, other eligible projects (e.g. agriculture) may induce biodiversity risks. TCB will identify and manage such impacts through environmental impact assessments (EIAs) and certification

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such as the Forest Stewardship Council (FSC) and Global GAP for sectors with high biodiversity risk exposure. Additionally, the bank will not finance activities that involve the clearing of primary forests, high conservation value areas, or peatlands, nor will it support illegal logging or the uncontrolled and/or illegal use of fire. However, the bank is yet to formulate a comprehensive biodiversity policy.

TCB aims to ease underserved populations, and MSEs and MSMEs' access to credit. For example, the bank had loans of VND3.4 trillion (US\$0.13 billion) to support MSMEs on Dec. 31, 2023. In addition, TCB aims to empower local communities through digitalization, allowing them to get equitable and inclusive access to its services. However, the acceleration of the bank's digital offerings exposes it to data protection and privacy risks. The bank has an enterprise data security and privacy standard and data privacy data assessment guideline in place to identify and evaluate data privacy risks. All new joiners are also required to complete training regarding information security and data privacy within their first month.

Alignment Assessment

This section provides an analysis of the framework's alignment to Green Bond Principles.

Alignment With Principles

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✕

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✓ Use of proceeds

All the framework's green project categories have a green shade, and the bank commits to allocating the net proceeds issued under the framework exclusively to eligible projects. Please refer to the Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds. TCB will disclose the proportion of financing versus refinancing in its allocation reporting. The maximum look-back period for refinanced projects is 36 months, in line with market practice.

✓ Process for project evaluation and selection

The framework outlines a process that TCB has developed to evaluate and select potential projects. Relationship managers will first identify and select projects based on the framework's eligibility criteria. The projects will then be assessed by ESG experts and the social and environmental risk management officer or outsourced units, followed by an evaluation and approval by the approval team. This team is composed of members from the credit risk and sustainability functions. TCB has internal policies and procedures to identify and manage projects' ESG risks. For instance, the bank will conduct due diligence for environmental and social risks of green projects in the pre-credit investigation process and will review projects' compliance with relevant regulations on environmental and social risk management in the post disbursement process. The framework's exclusion criteria reference the International Finance Corp.'s exclusion list, including activities such as weapons and munitions, illegal gaming, gambling, tobacco, forced or child labor. Projects associated with the fossil fuel value chain (e.g. emissions reduction projects supporting fossil fuel industries or activities), fossil fuel assets or equipment, and the transportation of fossil fuels are also excluded.

✓ Management of proceeds

The net proceeds will be placed into TCB's general account to track their allocation. As long as green bond issued under this framework is outstanding, the balance of the tracked net proceeds will be periodically adjusted to match allocations to eligible projects. Pending allocation, net proceeds will be kept in cash, cash equivalents, or deposited at correspondent banks, such as the State Bank of Vietnam.

✓ Reporting

TCB commits to disclosing annually the allocation of proceeds and impact of the financed projects on the bank's website until full allocation of the net proceeds. Allocation reporting will include a brief description of the projects and allocated amount, proportion of financing versus refinancing, and amount of unallocated proceeds. The bank will disclose on qualitative and/or quantitative impacts of the funded projects at an aggregate or project level, as laid out in the framework. TCB shall engage an external party to conduct post-issuance review on the allocation reporting.

Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the Shades of Green methodology.

Overall Shades of Green assessment

Based on the project category shades of green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in TCB's green bond framework, we assess the framework Medium green.

Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

Green project categories

Renewable energy, clean energy

Assessment

 **Dark to Medium green**

Description

1. Projects and plans for investment in the construction and operation of renewable energy plants/equipment such as:
 - a. Wind energy
 - b. Solar energy
 - c. Small-scale hydropower projects with capacity under 10 MW
 - d. Other forms of clean energy (e.g. geothermal energy)

For geothermal energy projects, the lifecycle greenhouse gas emissions from the generation of electricity by the entire facility must be less than 100 gCO₂e/kWh.

2. Smart grid construction and operation projects

Analytical considerations

- Renewable energy projects such as solar and wind are key elements in limiting global warming to well-below 2°C, provided their negative impacts on the local environment, and physical risks are sufficiently mitigated.
- TCB confirms that dedicated connections to fossil fuel-related activities are not eligible. Renewable energy from solar, wind, hydropower, and geothermal are essential to the transition to a low-carbon future, and are Dark green solutions. Investment in smart grids can help increase the integration of renewables into the grid and reduce losses along the distribution network but the climate benefits are limited by the fact that coal is still the major source of electricity, adding a Medium green element. According to the International Energy Agency (IEA), most of the Vietnam's electricity supply currently comes from coal (40%) and hydro (35%).
- Eligible renewable energy generation projects will help integrate renewable energy into the local power grid. However, there are lifecycle carbon considerations during the development, construction, installation, and maintenance phases. These include emissions from materials sourcing, manufacturing, transportation, and equipment end-of-life decommissioning (e.g. solar panels and wind turbines). While TCB is the lender and not the asset owner, the bank relies on EIA reports and regulatory compliance to manage end-of-life issues, which are part of the lending requirements.

- Hydropower can entail significant emissions from construction and water reservoirs, as well as bring adverse impacts on biodiversity and ecosystems, for example disrupting water flows and fish migration. To that extent, it is positive that the bank limits the capacity to be under 10 MW. EIAs are also mandated to assess projects’ impacts on land, water scarcity, and ecosystem during the development and operation phases. For geothermal facilities, a lifecycle emissions threshold of less than 100gCO_{2e}/kWh should ensure an adequate environmental performance for such projects.
- Investments in smart technologies are essential to grid resiliency and electrification. That said, coal still plays a large role in Vietnam’s grids, linking to ongoing fossil fuel use. We assess these activities Medium green.
- Biodiversity and physical climate risks are part of the bank’s environmental and social risk assessment, a requirement of the credit approval process. In relation to renewable energy projects, TCB will assess the impacts on the local flora and fauna (e.g. bird migration routes potentially affected by wind turbines).

Green industries

Assessment

Description

 **Light green**

1. Saving natural resources (e.g. energy, water) in industrial production
2. Reduction of emissions in industrial production (e.g. dust filtration projects in power plants, steel factories, cement factories)
3. Utilization of excess heat and pressure from systems powered by renewable energy
4. Projects aimed at renovating and constructing workspaces and factories to ensure hygiene, occupational safety, and provide environmental benefits such as energy efficiency, optimized water usage, effective waste management, and improved indoor air quality.

Projects under this green eligibility category need to achieve at least 10% energy savings.


Analytical considerations

- This category covers resource conservation, air emissions reduction, utilization of excess heat and pressure, and improvement in industrial production environment. Fossil fuel power plants and projects supporting fossil fuel related industries and activities are not eligible. TCB has set a 10% energy saving threshold, ensuring minimum environmental benefit. While these activities contribute to the transformation of the industrial sector, inclusion of a broad range of activities could mean heterogeneous actual environmental benefits. In addition, not ruling out higher emissions industries limits the full benefits of the projects due to other environmental risks from their other activities separate from the financing. As a result, we assess this category Light green.
- Removal of air pollutants plays a key role in facilitating a low-carbon, climate-resilient future. However, there is some uncertainty around risks and benefits of projects without specific performance thresholds. The financing of pollution reduction projects for heavy-emitting industries (e.g. cement and steel production) also heightens climate risks. We assess these activities as Light green.
- The utilization of waste heat and pressure captures energy that would otherwise be unused, reduces the demand for energy and hence emissions from alternative sources. However, actual climate advantages depend on the industries providing the heat. TCB informed that the source of excess heat comes from industries that produce heat as a by-product (e.g. cement, steel manufacturing), and that from fossil fuel industries is excluded. Eligible projects must demonstrate a minimum energy recovery efficiency or substantial reduction in energy consumption compared to the baseline. However, TCB has yet to define quantitative performance thresholds, limiting insights into these projects’ environmental benefits. In addition, there may be other environmental risks from heavy industries, depending on where they source their waste heat from. Thus, we assess these activities Medium green.
- The renovation and construction of workspaces and factories aim to drive energy and water efficiency, effective waste management, and improved air quality. Project examples include upgrade of insulation and HVAC systems, installation of water-savings fixtures, utilization of renewable energy (e.g. solar panels), and use of recycled or eco-friendly materials. While these improve the overall operational performance of the industrial sector, the broad range of eligible activities could lead to

uneven environmental benefits. Apart from the 10% energy saving requirement, the lack of performance thresholds for other aspects (i.e. water, waste, and air quality) also limits insights into the overall environmental benefit.

- Similarly, physical climate and biodiversity risks are part of the bank’s environmental and social risk assessment, a requirement of the credit approval process.

Provision of environmental protection and energy-efficient services


Assessment	Description
 Light green	<ol style="list-style-type: none"> 1. Provision of energy efficiency services, for example: <ol style="list-style-type: none"> a. Consulting services on testing, replicating and applying energy saving technologies b. Architecture and technology design for energy efficiency c. Consulting services on energy efficiency assessment 2. Provision of environmental protection services, for example <ol style="list-style-type: none"> a. Environmental risk assessment and investigation services in contaminated areas b. Operation and maintenance of equipment for environmental safety assessment c. Forecast and assessment the effectiveness of pollution treatment d. Training of environmental investigators

Projects under this green eligibility category need to achieve at least 10% energy savings.

Analytical considerations

- Energy efficiency is key to reaching the goal of limiting warming to well below 2°C. According to the Intergovernmental Panel on Climate Change (IPCC), the breakdown of average mitigation investment flows and investment needs until 2030 shows that energy efficiency is one area that requires the most significant investments. TCB confirms that activities supporting the fossil fuel related industries and activities are not eligible.
- TCB has set a minimum energy saving of 10%, adding transparency to the projects’ potential impact. While this is a criterion of the credit granting process, it is challenging to track the ongoing performance, especially for the provision of environmental protection services with relatively indirect contributions to energy savings. However, there are limited considerations around rebound effects, which means an increase in energy use following efficiency improvements. The broad nature of this category and indirect benefits of training initiatives are reflected in the Light green assessment.
- It is also one of the measures outlined in the country’s nationally determined contribution (NDC) to develop and implement training and upskilling programs focusing on environmental technical experts.

Sustainable transportation

Assessment	Description
 Dark to Medium green	<ol style="list-style-type: none"> 1. Development of sustainable transportation infrastructure, for example: <ol style="list-style-type: none"> a. Construction and installment of smart street light systems powered by solar panels 2. Reduction of emissions from vehicles, for example:

- a. Investment in, manufacturing, use and trade of electric vehicles (EVs) (electric cars, electric motorcycles, etc.)
- b. Use of clean fuels, specifically green hydrogen and its derivatives to power vehicles. This excludes fuels such as liquefied petroleum gas and compressed natural gas
- 3. Development of EV manufacturing infrastructure
 - a. Investment in the construction, installation, and renovation of EV factories and production lines

Analytical considerations

- Mitigating greenhouse gas emissions from transportation will be crucial to meet global decarbonization goals, as the transport sector accounts for 23% of global energy-related greenhouse gas emissions, according to the IPCC. According to the Ministry of Transport, the transport sector contributes 18% of Vietnam’s total greenhouse gas emissions. Fossil fuel-powered vehicles also create air pollution, such as nitrogen oxides and sulfur oxides.
- This category is assigned an overall shade of Dark to Medium green interval, given the inclusion of electrified transportation and manufacturing infrastructure, as well as clean fuels (green hydrogen and its derivatives). TCB confirms that transportation or related infrastructure dedicated to the transport of fossil fuels is not eligible under this framework.
- Electric road transport is key to decarbonizing land transportation and is a Dark green technology. However, there are limited considerations on reducing production emissions from EV manufacturing and potential environmental impacts associated with batteries, adding a Medium green element. The production of batteries and sourcing of raw materials can have substantial climate and environmental effects.
- Green hydrogen vehicles can result in decreased lifecycle emissions compared to internal combustion vehicles. However, the production of green hydrogen is often energy and water intensive and there is still uncertainty around the climate and environmental impacts of the risks around storage and leakage. Lifecycle emissions of alternative fuels should also be carefully managed given the complexity of the value chain. TCB has not provided further details on the green hydrogen production value chain, adding a Medium green element.
- The development of EV manufacturing infrastructure could expand production exclusively for EV vehicles. While these facilities are crucial to produce clean transport and decarbonize the sector, climate and other environmental risks can arise during the production process and are not expressly addressed in the criterion. Such risks, for instance, can arise from running facilities on fossil-fuel based energy, as well as biodiversity risks stemming from the increased demand for raw materials and their sourcing. Physical climate risks also are a material consideration for all infrastructure projects. As a result, we assess this subcategory Medium green. In terms of energy performance, TCB will require borrowers to include a commitment to set energy-saving targets and formulate an energy reduction plan in their environmental policy. For new construction, the bank will encourage borrowers to obtain a green building certificate.
- Similarly, physical climate and biodiversity risks are part of the bank’s environmental and social risk assessment, a requirement of the credit approval process.

Green construction

Assessment

 **Light green**

Description

1. Construction and renovation of civil constructions/industrial parks with efficient use of energy, water, and resources
2. Manufacturing and management of sustainable and environmentally friendly building materials
3. Construction and renovation of construction works to achieve one of the following green certificates:
 - a. LEED (Gold or higher)

- b. EDGE (Certified or higher)
- c. Vietnam GBC LOTUS Certification (Certified or higher)
- d. BREEAM (Excellent or higher)
- e. Other equivalent green construction certificates

Renovation projects for buildings must achieve at least a 20% reduction in energy consumption compared to the average performance of equivalent existing buildings.

Analytical considerations

- The IEA emphasizes that reaching net-zero emissions in buildings demands major strides in energy efficiency and fossil fuel phase out. All properties must achieve high energy performance. New properties should also cut emissions from building materials and construction. Additionally, addressing physical climate risks is crucial for strengthening climate resilience across all buildings.
- We assign a Light green shade to this project category, reflecting our view that TCB mainly relies on green building certifications to screen projects. TCB expects most proceeds will go to new buildings (around 80%), and the types of buildings to be commercial, industrial, residential, and data centers. Buildings directly involved in fossil fuel activities, or supporting the fossil fuel value chain, will not receive funding.
- In addition to international certifications, TCB also accepts the local LOTUS certification. The framework considers other comparable green building standards as eligible, without specifying the certifications, criteria, or performance thresholds. Moreover, the point-based systems of buildings certifications do not necessarily require minimum performance improvements. Required certification levels could be achieved without addressing specific environmental issues thoroughly. These factors limit insight into the projects' potential environmental impacts, supporting the Light green assessment. The bank shared that selected certifications impose higher requirements on energy and water efficiency than the national building codes and the average building stock. The bank expects EDGE and LEED to be the most used certifications. For example, EDGE Certified requires 20% or more savings in energy, water, and embodied energy in materials.
- TCB confirmed that all eligible projects will not directly finance fossil fuel-based equipment. Heating and cooling of the buildings will rely mostly on electricity sourced from the national grid, which coal still largely dominates. In addition, the bank will encourage the use of renewable energy (e.g. solar panels) and energy-efficient equipment (e.g. advanced HVAC systems, lightings, and automated management systems). For renovation projects, the bank sets a 20% energy consumption reduction threshold.
- Construction and retrofits involve embodied emissions and associated climate impacts. In addition to relying on the selected certifications to address a given building's environmental impact throughout its lifecycle, TCB stated that it will encourage the use of sustainable materials (as defined by the government standard), optimize logistics to reduce emissions associated with transportations, implement energy-efficient measures at construction sites, and promote the recycling and reuse of construction materials. Nevertheless, it has no plan to assess a given building's lifecycle emissions, nor to set any emissions reduction targets or thresholds. This implies that certified buildings do not necessarily guarantee the highest climate impact and supports the assessment of Light green.
- In addition to the credit approval process where environmental and social risk assessments are required, TCB mainly relies on the selected certifications and EIAs to assess and mitigate physical climate risks (e.g. flooding and tropical cyclones), and biodiversity risks related to construction.

Green agriculture

Assessment

 Light green

Description

1. Modern and globalized agriculture, for example:
 - a. Investment in plant breeding facilities for commercial purposes (e.g. projects involving seeds that contribute to climate change adaptation and mitigation,

- such as adaptive varieties, seeds from native species, certified organic seeds, and other similar schemes)
- b. Capacity building for seed production (networks of seedling nurseries, distribution, transportation, etc.);
 - c. Procurement of mechanized equipment, construction of facilities for drying, selection, processing, preservation and testing seeds;
2. High-tech agriculture projects certified by the Ministry of Agriculture and Rural Development or Ministry of Science and Technology
 3. Clean agriculture, for instance:
 - a. Projects with Certificate of high-tech agricultural enterprise
 - b. Agricultural production project with VietGAP Certificate according to Circular No. 48/2012/TT-BNNPTNT
 - c. Other projects certified by GlobalGAP, ASC, MSC

All projects in this category must be certified with Certificates of Food Safety according to the regulations in Circular No. 48/2013/TT-BNNPTNT dated Nov. 12, 2013

4. Bioagriculture, for instance:
 - a. Projects to produce organic products certified by a third party according to national standards) on organic agriculture or international standards, regional standards, and foreign standards applied in organic product manufacturing;
 - b. Projects that do not use synthetic chemicals in all stages of the production chain to avoid human and environmental exposure to toxic chemicals, minimizing pollution at the production site and surrounding environment.
 - c. The project that does not use genetically modified technology, radiation, and other technologies harmful to organic production.
5. Reduction of greenhouse gases in agriculture (low-carbon agriculture), smart adaptation to climate change, for example:
 - a. Application of technologies and procedures with high breed/feed/supplies/resources (soil, water, etc.) efficiency in agricultural production.

Projects associated with deforestation and/or biodiversity loss are not eligible.

Analytical considerations

- According to the World Bank, Vietnam's agriculture sector is the country's second largest contributor to greenhouse gas emissions, accounting for 19% of the total in 2020. Rice production accounts for 48% of those emissions, followed by enteric fermentation in livestock production (15%), synthetic fertilizer application (13%), and manure management (10%). Agricultural practices that reduce climate emissions from crop and livestock farming and enhance soil health, water quality, and ecosystem integrity are crucial for a low-carbon climate resilient future. Sustainable inputs and farming practices, as well as a shift to more plant-based and lower-emission protein sources, contribute to a green transition for this sector.
- This category covers crop farming, livestock farming, and aquaculture. The reference to relevant regulations and use of certifications (e.g. VietGAP, GlobalGAP, ASC, MSC) should cover important environmental topics and can help verify sustainable practices. At the same time, certification systems vary significantly in stringency, can contain loopholes and, in many cases, they cannot adequately address larger systemic issues, such as direct and indirect land use change driven by agricultural expansion and associated climate emissions, or enforceability and traceability of impacts. Relying on certifications and standard/regulation compliance to screen projects and the absence of performance thresholds bring uncertainty to these projects' actual environmental impacts, limiting this category at Light green.

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- Crop-based agriculture can drive climate emissions and harm biodiversity and ecosystems. Risks include land use change, fertilizer and pesticide overuse, water pollution, soil degradation, and use of fossil fuel-powered equipment. Crops are highly exposed to physical climate risks such as chronic changes in rainfall and temperatures. Plant breeding using adaptive and native varieties could enhance climate resilience and resource efficiency, and reduce chemical inputs. The purchase of agriculture equipment that runs directly on fossil fuel is excluded. In the meantime, capacity building (e.g. technical training, knowledge-sharing initiatives) is essential to empower farmers to implement sustainable practices.
- High-tech agriculture, certified by the Ministry of Agriculture and Rural Development (MARD) or the Ministry of Science and Technology (MOST), refers to the use of advanced technologies in farming practices to improve resource efficiency and productivity. Eligible activities include precision agriculture, biotechnology, automated machinery, data analytics, and innovative irrigation systems. Compared to conventional farming methods, TCB shared that precision farming could reduce fertilizer use by 20% to 30%; advanced irrigation systems could improve water use efficiency by 50%.
- Livestock farming is a large contributor to climate emissions through animal digestion and manure. Land conversion for both animal farming and feed crops can drive emissions and harm biodiversity. TCB does not restrict the types of livestock raised for these projects, meaning that products from high-emitting ruminant animals may be financed. Nevertheless, the bank commits to not financing projects that lead to increase in total herd size. The referenced local regulation focuses on animal health, hygiene, traceability, animal welfare, and compliance and licensing.
- Vietnam was the fourth-largest aquaculture producer in the world in 2016, with 4.5% of the world's total production. Aquaculture farmers are experiencing the impacts of climate change firsthand. This creates stress and makes them more susceptible to disease. Beyond certification requirements, TCB currently does not set any criteria on the vessels used in aquaculture projects, on energy performance, and on feed or transport emissions. The bank will encourage energy-efficient and lower-emissions practices (e.g. incorporating renewable energy sources, adopting cleaner vessel fuels).
- In Vietnam, the MARD oversees and recognizes certain certification bodies for organic agriculture. Organic farming has broad environmental benefits (e.g. positive impact on local biodiversity and improving soil quality) but its overall impacts on greenhouse gas emissions remain uncertain.
- Projects associated with deforestation, conversion of forest into other land uses, and biodiversity loss are not eligible. In addition to the credit approval process where environmental and social risk assessments are required, TCB will rely on the selected certifications, EIAs, and ongoing monitoring to assess and mitigate physical climate risks and biodiversity risks.

Sustainable forestry

Assessment

 **Medium to Light green**

Description

1. Forest conservation and development projects, for example:

- Reforestation projects
- Forest land improvement projects
- Low to high efficiency forest land improvement projects
- Mangrove forest conservation and management projects under co-benefit mechanism

The project must simultaneously meet the following two conditions:

- Projects must provide documentation required by Vietnam's laws, such as certification under Circular 23/2013/TT-BNNPTNT
- The project must obtain at least one or multiple of the following forest certification, such as:
 - Forest Stewardship Council (FSC) certification
 - Program for the Endorsement of Forest Certification (PEFC)
 - Adherence to Vietnam Forest Certification Office (VFCO) guidelines

2. Development of forestry economy and forest services (e.g., projects for production development, integrating crop cultivation and livestock breeding in forest ecosystem)
 - a. Forestry seedlings investment and development

Projects relating to livestock in forest that increase the total herd size are not eligible.

Analytical considerations

- Forests can contribute to carbon sequestration and protect biodiversity habitats. It also can provide ecosystem services, such as water regulation and soil stabilization, which improve climate resilience. Implementing sustainable forestry management practices; avoiding harmful land use change; and managing physical climate risks, including wildfires and pests, are key to achieving these benefits.
- Investments in forest conservation projects, such as reforestation, forest land improvement, and mangrove conservation are critical for the low-carbon future, and are Dark green. It also has a role in supporting Vietnam’s National Forestry Development Planning for 2021-2030, with a vision to 2050, to improve forest quality while maintaining a national forest cover of 42% to 43%. The Medium to Light green interval reflects the broad range of activities, including the development of forestry economy, which is a Light green element.
- TBC will prioritize the protection of sensitive carbon- and biodiversity-rich areas such as primary forests. Eligible forest projects are required to obtain relevant certifications (FSC, PEFC, VFCO), which cover various important environmental topics. However, certification systems vary significantly in stringency, can contain loopholes and, in many cases, cannot adequately address larger systemic issues, such as direct and indirect land use change driven by agricultural expansion and associated climate emissions, or enforceability and traceability of impacts. The list of potential spending is broad, and funded ventures may differ greatly in their impact. Nevertheless, the absence of clear thresholds may not guarantee biodiversity benefits.
- The term low to high-efficiency forest land improvement projects refers to a spectrum of management and restoration efforts that vary in their effectiveness in achieving environmental, social, and economic outcomes. Efficiency is measured by how well the projects enhance forest productivity, biodiversity, ecosystem services (like carbon sequestration and water regulation), and the livelihood of local communities.
- Mangroves play a crucial role in coastal ecosystems and contribute to the well-being of both the environment and local communities. It is also essential in mitigating the impacts of climate change due to their ability to sequester carbon. Well-managed mangrove forests have the potential to store up to four times more carbon than tropical forests, according to the UNDP.
- Forestry economy activities such as crop cultivation and livestock breeding are assessed as Light green. For example, crop-based agriculture could induce risks such as land use change, fertilizer and pesticide overuse, water pollution, soil degradation, and use of fossil fuel-powered equipment while livestock farming is a large contributor to climate emissions through animal digestion and manure. Please refer to the analytical considerations under the sustainable agriculture category.
- In addition to the credit approval process where environmental and social risk assessments are required, TCB will adhere to relevant regulations and frameworks to manage physical climate and biodiversity risks in relation to forestry projects, such as Vietnam Forestry Development Strategy 2021-2030 and National Action Plan on REDD+ (Reducing Emissions from Deforestation and Forest Degradation). Relevant expertise in biodiversity, including tree species, wildlife, and the wider ecosystem will also be involved.

Sustainable water management in urban and rural areas

Assessment

Description

 Light green

1. Sustainable water management in cities, for example:
 - a. Urban water supply system renovation projects to reduce water loss and leakage;

- b. Urban drinking water supply system construction and renovation projects to ensure hygiene and effective water supply for households;
- c. Treated domestic wastewater reuse projects;
- d. Projects of rainwater collection, treatment, and reuse system in urban areas

2. Irrigation infrastructure construction for agricultural production

The agricultural irrigation projects in this category must achieve at least a 20% water saving compared to conventional practices.

Analytical considerations

- Water is necessary for economic activity, thriving ecosystems, and public health. Therefore, water supply systems are important for securing a future where all stakeholders have reliable access to sufficient water of adequate quality. These systems are energy-intensive and, if not sufficiently managed, can generate significant waste, exacerbate water stress for other stakeholders, and pose disruptions to hydrology and aquatic ecosystems.
- The use of fossil fuel-based equipment is not ruled out under the eligibility criteria, given the local context of Vietnam. Yet, TCB will encourage the use of lower emissions equipment, running on electricity or hybrid mode. Apart from the water saving requirement for agricultural irrigation projects, the framework lacks specific quantifiable thresholds for other projects. There are also limited considerations on the embodied emissions from water infrastructure construction. As a result, we assess this category Light green.
- Vietnam currently faces several water issues, such as water stress because of rapid urbanization and industrialization, inadequate access to drinking water in rural and underserved areas, deteriorated water quality from agricultural runoff, industrial discharges, inadequate wastewater management, and outdated infrastructure, as well as uncertain water availability due to evolving precipitation patterns from climate change. For instance, only 39% of the rural population has access to safe water and sanitation, and the Ministry of Natural Resources and Environment estimates that close to 80% of the diseases in Vietnam are caused by polluted water. Increasing supply for safe drinking and urban water through reducing water loss and leakage contributes to the national target to reduce the water loss rate in water supply activities to 10% by 2030.
- Domestic water reuse, and rainwater collection and reuse contribute to better water management and usage. These systems can mitigate the need to use water from freshwater bodies and help create reliable supplies for water availability during drought.
- Investment in irrigation facilities, such as drip irrigation and smart irrigation systems, delivers environmental benefits including water conservation, reduction of energy consumption, and prevention of soil erosion. The minimum 20% water saving threshold compared to conventional practices should ensure an adequate water saving performance. However, eligible projects include both upgrades to existing networks and extensions, which could introduce value chain risks (e.g. land use change, and adverse environmental impacts from agricultural practices).
- All projects have to abide by national regulations, including the Water Resources Law and relevant technical and operational standards. Similarly, physical climate and biodiversity risks are part of the bank’s environmental and social risk assessment, a requirement of the credit approval process.

Waste treatment and pollution

Assessment	Description
<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #4CAF50; margin-right: 5px;"></div> Light green </div>	<ol style="list-style-type: none"> 1. Wastewater treatment 2. Waste disposal, for example: <ul style="list-style-type: none"> a. Waste collection and treatment facility construction and operations projects for residents b. Industrial solid waste disposal projects

- c. Hazardous solid waste disposal projects
3. Pollution prevention, for example:
 - a. Waterflow pollution handling and prevention projects
 - b. Technology investment projects to improve water quality
 - c. Air pollution mitigation and prevention projects (dust, gases)

Waste collection and treatment projects, in this category, must ensure that waste is disposed of in an environmentally sound manner, via methods such as recycling, composting, anaerobic digestion, waste-to-energy, or other advanced waste treatment methods.

Projects in this category involving disposal to landfill are not eligible.

Projects in this category that result in increased landfill volumes are not eligible.

Waste-to-energy (WtE) projects that do not ensure the segregation and recovery of the majority of recyclable materials (such as plastics, metals, and paper) before converting residual waste to energy are not eligible.

Analytical considerations

- Waste management is an important pollution prevention measure that can prevent harm to human health and local ecosystems from waste streams. Recycling, if done properly, increases the useful life of materials, thereby reducing carbon and other air pollutants' emissions, energy, and natural-resource use. Waste prevention and reuse solutions are the preferred solutions under the waste management hierarchy because they have the lowest negative environmental impact, followed by recycling, energy recovery, and finally disposal. Waste collection and sorting projects can increase recycling and reuse rates, thus diverting waste from less environmentally beneficially disposal solutions.
- This category covers wastewater treatment, waste disposal, and pollution prevention projects. The use of fossil fuel-based equipment is not ruled out under the eligibility criteria, given the local context of Vietnam. Yet, TCB will encourage the use of lower emissions equipment, running on electricity or hybrid mode. We assess this category as Light green due to the absence of specific lifecycle emissions thresholds.
- As per the World Bank, although 60% of Vietnamese households dispose of wastewater through public sewerage systems, much of this goes to the drainage system with only 10% of the wastewater treated. Likewise, 90% of households dispose wastewater to septic tanks, but only 4% of the septage is treated. Investment in wastewater systems could reduce pollution, enable resource recovery, and enhance ecosystem and public health, and as a result are a key component of a low carbon climate resilient future. However, these systems could be energy intensive, and produce significant solid waste and methane emissions if they are not appropriately managed, adding a Light green element. While TCB does not set any lifecycle emissions threshold, it will encourage its borrowers to utilize energy-efficient equipment and integrate renewable energy sources (e.g. solar panels). All wastewater treatment projects (including the management of sludge and solids generated) have to comply with the Vietnam's technical standards (TCVN) and technical regulations (QCVN).
- Waste management is an important pollution prevention measure that can avoid harm to human health and local ecosystems from waste streams. The framework includes a broad range of waste streams such as domestic waste, industrial waste, and hazardous waste. TCB commits to ensuring waste is disposed of in an environmentally sound manner, and excluding projects that involving disposal to landfills or resulting in increased landfill volumes. Hazardous and industrial waste is managed in accordance with relevant technical standards and regulations, such as the Waste and Scrap Management Decree and the Hazardous Waste Management Circular. TCB will prioritize projects that adopt resource recovery practices or the circular economy principles, which is a Medium green element. However, the bank does not have an expected split on the waste management methods (reuse, recycling, and energy recovery), limiting this category to Light green.
- WtE projects convert municipal solid waste to electricity and heat, while most recyclables (e.g. plastics, metals, and paper), will be segregated before incineration. TCB will ensure eligible projects adhere to the waste management hierarchy, which prioritizes waste collection, sorting, and recycling efforts before resorting to waste-to-energy solutions. While this is preferable to landfilling, it is equally important to consider life-cycle emissions to maximize climate mitigative effects. This is because waste-to-energy projects are emissions intensive and will likely involve fossil fuel use throughout their value chain (i.e. transportation of waste over long distances). The absence of lifecycle emission threshold limits insight on the environmental benefits. There is also a risk from local pollution from by-products like dioxins, which could be challenging to

address, limiting the assessment to Light green. Nevertheless, the bank will rely on EIAs and regular reporting on waste management practices, as part of the loan conditions, to identify and manage potential environmental risks.

- Projects aimed at pollution prevention (e.g. waterflow prevention, water quality improvement, air pollution prevention) are an important component of a sustainable low-carbon future, supporting overall environmental quality and reducing local pollution. However, there is some uncertainty in this category around risks and benefits of projects without specific thresholds available. The possibility of financing pollution reduction projects for heavy-emitting industries has not been ruled out, heightening climate risks. We assess this subcategory as Light green.

Terrestrial and aquatic biodiversity conservation and climate change adaptation

Assessment

 **Medium green**

Description

1. Nature reserve construction plans (forests, sea, wildlife rescue and rearing areas, desert);
2. Ecological restoration, for example:
 - a. Consolidated wetland environment improvement project;
 - b. Mangrove ecological restoration projects
3. Prevention of natural disasters, for example:
 - a. Storm and flood prevention and control works;
 - b. Ecological irrigation and flood control works
 - c. Drought prevention and water conservation projects
 - d. Soil erosion prevention and integrated treatment projects

Projects in this category involving the introduction of invasive species are not eligible.

Analytical considerations

- Investments in sustainable biodiversity activities, such as nature reserves and ecological restoration, are critical for the low-carbon future, and we view such activities as Dark green. It also has a role in supporting Vietnam’s target to have at least 20% of the degraded ecosystem recovered, as stated in the National Biodiversity Strategy to 2030, vision to 2050. However, the absence of quantitative targets and thresholds in the framework’s eligibility criteria limits visibility on the expected impact of financed projects. The overall Medium green assessment reflects the broad range of activities, including natural disaster prevention measures that require infrastructure construction which typically entails substantial embodied emissions.
- TCB will limit the risk of introduction of invasive species by requiring borrowers to conduct EIAs and to formulate prevention strategies, adhering to relevant regulations in relation to environmental protection and biodiversity.
- Climate scientists have been clear that some degree of climate change will take place, even in the most-optimistic scenarios. This makes it crucial to plan for and mitigate potential risks to reduce the financial and environmental effects. Implementing adaptation solutions can also reduce resources and emissions linked to rebuilding damaged assets. Prevention of natural disasters is therefore important, especially for Vietnam where is vulnerable to events such as floods, droughts, heatwaves, and cyclones. The financing includes adaptation and prevention measures that require construction (e.g. flood prevention and control works), which can lead to substantial emissions during the construction phase and heavy materials use (cement in particular), weighing on the benefits of such projects and adding a Medium green element. While it is not a requirement, TCB encourages the use of sustainable construction materials and promotes reuse and recycling of materials. In addition, it is important to identify and manage the potential risk of maladaptation--that is, shifting vulnerability to other parties of climate-related events, and eligible projects’ impacts on local biodiversity, while the framework has not addressed this.
- Physical climate risks will be assessed and managed through EIAs and the environmental and social risk assessment as part of the credit approval process.

Recycling, reusing natural resources

Assessment

Description

 **Light green**













1. Repurposing resources
 - a. Minerals
 - b. Ordinary solid waste
 - c. Waste in construction and road making
 - d. Dismantled and manufactured materials
 - e. By-products and waste in agriculture and forestry
 - f. Renewable resources

Projects in this category must obtain at least one eco-labels or local/international environmental certifications, such as FSC, Rainforest Alliance, and VSC.

Analytical considerations

- Circular economy services are a key part of a low carbon future because they can contribute to reduced resource use and waste, for example by extending products' lifetime through re-use or repair. According to UNDP, only 7.2% of used materials are cycled back into economies after use, which has a significant burden on the environment. Through efficient and more circular use of materials in key industrial materials such as cement, steel, plastics, and aluminum, circular economy strategies can help reduce global greenhouse gas emissions by 40% by 2050.
- TCB confirms that activities serving the fossil fuel value chain will not be eligible. The bank mainly relies on eco-labels or certifications to screen projects. However, certification systems vary significantly in stringency, can contain loopholes and, in many cases, cannot adequately address larger systemic issues, or enforceability and traceability of impacts. The list of potential spending is broad, and funded ventures may differ greatly in their impact. Nevertheless, the absence of clear thresholds creates uncertainty about the actual environmental benefits. As a result, we assess this category Light green.
- Examples of eligible activities include converting organic waste from the agriculture and forestry sector into compost for soil enrichment and recycling paper, plastics, metals. All projects must comply with relevant standards and regulations such as the Waste Management Circular.
- The supply chain of raw materials has its challenges and transportation to and from recycling facilities may be carbon intensive. While project emissions associated with transport may be substantial, they may be challenging to address and monitor given TCB's position as a lender.
- Similarly, physical climate and biodiversity risks are part of the bank's environmental and social risk assessment, a requirement of the credit approval process.

S&P Global Ratings' Shades of Green

Assessments					
 Dark green	 Medium green	 Light green	 Yellow	 Orange	 Red
Description					
Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects					
 Solar power plants	 Energy efficient buildings	 Hybrid road vehicles	 Health care services	 Conventional steel production	 New oil exploration

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

Mapping To The U.N.'s Sustainable Development Goals

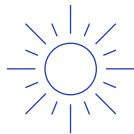
Where the Financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the Financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not impact our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds

SDGs

Renewable energy, clean energy



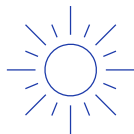
***7. Affordable and clean energy**

Green industries



***9. Industry, innovation and infrastructure**

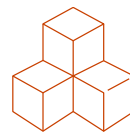
Provision of environmental protection and energy-efficient services



7. Affordable and clean energy



8. Decent work and economic growth



9. Industry, innovation and infrastructure

Sustainable transportation



***11. Sustainable cities and communities**

Green construction



***11. Sustainable cities and communities**

Green agriculture



***2. Zero hunger**



***12. Responsible consumption and production**



***15. Life on land**

Sustainable forestry



***12. Responsible consumption and production**



***15. Life on land**

Sustainable water management in urban and rural areas



***6. Clean water and sanitation**



***11. Sustainable cities and communities**

Waste treatment and pollution



***11. Sustainable cities and communities**

Terrestrial and aquatic biodiversity conservation and climate change adaptation



11. Sustainable cities and communities

Recycling, reusing natural resources



***12. Responsible consumption and production**

*The eligible project categories link to these SDGs in the ICMA mapping.

Related Research

- [Analytical Approach: Second Party Opinions: Use of Proceeds](#), July 27, 2023
- [FAQ: Applying Our Integrated Analytical Approach for Use-of-Proceeds Second Party Opinions](#), July 27, 2023
- [Analytical Approach: Shades of Green Assessments](#), July 27, 2023
- [S&P Global Ratings ESG Materiality Maps](#), July 20, 2022

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Second Party Opinion: Vietnam Technological and Commercial Joint Stock Bank Green Bond Framework

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