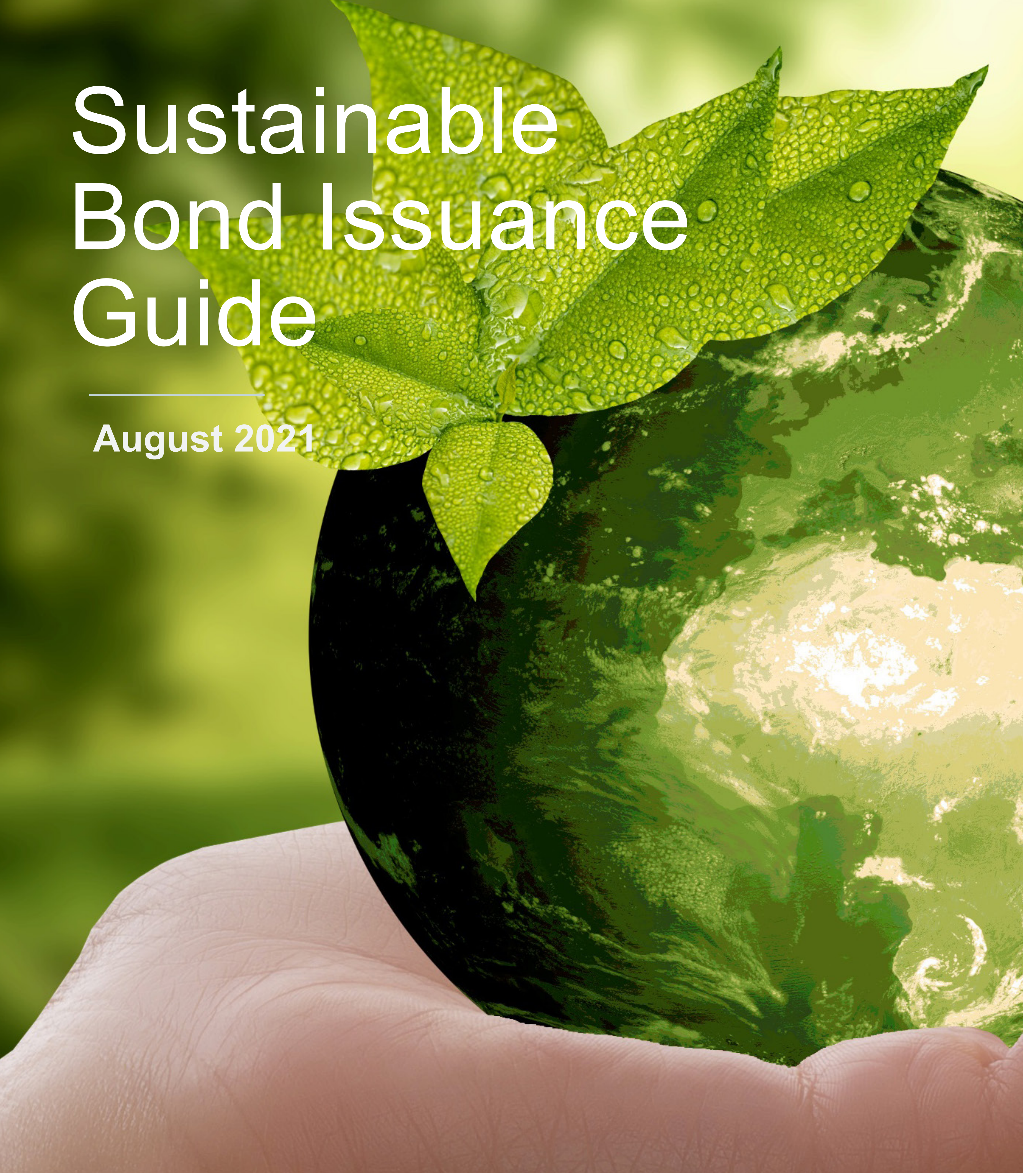
Sustainable Bond Issuance Guide

August 2021



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SUSTAINABLE BOND ISSUANCE GUIDE

TABLE OF CONTENTS

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EXECUTIVE SUMMARY

ES1. Types of sustainable bond

Sustainable bonds are bonds where the proceeds will be used for projects that bring about sustainable development outcomes, including mitigating and adapting to the adverse effects of climate change. The following are subsets of sustainable bonds.

ES2. Overview of sustainable bond issuance process

Generally, the issuance process for the different types of sustainable bond is similar. The standard issuance process for a green, social, sustainability, transition and sustainability-linked bond (SLB) consists of the following steps:

1. Identification of use of proceeds
Identify relevant projects for which financing is required and assess environmental or social benefits (Not necessary under SLB)

2. Selection of sustainable bond standard
Issuers can opt to adhere to internationally recognized standard(s)

3. Development of sustainable bond framework
Develop the framework based on the selected sustainable guideline/ standard

4. Pre-issuance external review
External review to confirm alignment of the framework with the standard adopted
(For SLB, a third party will perform review of the Key Performance Indicators (KPIs), Sustainability Performance Targets (SPTs), benchmarks and baseline used and strategy of the SLBs)

5. Sustainable bond issuance
This process is similar to conventional bond issuance

6. Management of proceeds
Allocate proceeds to nominated projects and track the allocation of proceeds. Execute investment options for unallocated net proceeds (Not necessary under SLB)

7. Reporting
Disclose project information, use of proceeds, unallocated proceeds and social/environmental impact of investment. Usually annually
(SLB reports updates on KPI performance against the baseline/ external reference/ benchmark)

8. Post-issuance external review
Verify alignment between intended and actual use of proceeds, as well as provide assurance of allocation and impact reporting. Usually annually.
(For SLB, third party will perform review of issuers' performance against SPTs and related impact and impact timing on the bond characteristics)

Gender and inclusion considerations are increasingly being looked at by investors and corporates as part of Environmental, Social and Governance (ESG) considerations. While there are specific "gender bonds" being issued, gender considerations can be part of the sustainable bond issuance irrespective of the thematic focus of the bond. Issuers can select gender indicators that are the most relevant for the type of projects and activities it plans to finance from the bond proceeds. These indicators can be included alongside other sustainability criteria.

SUSTAINABLE BOND ISSUANCE GUIDE

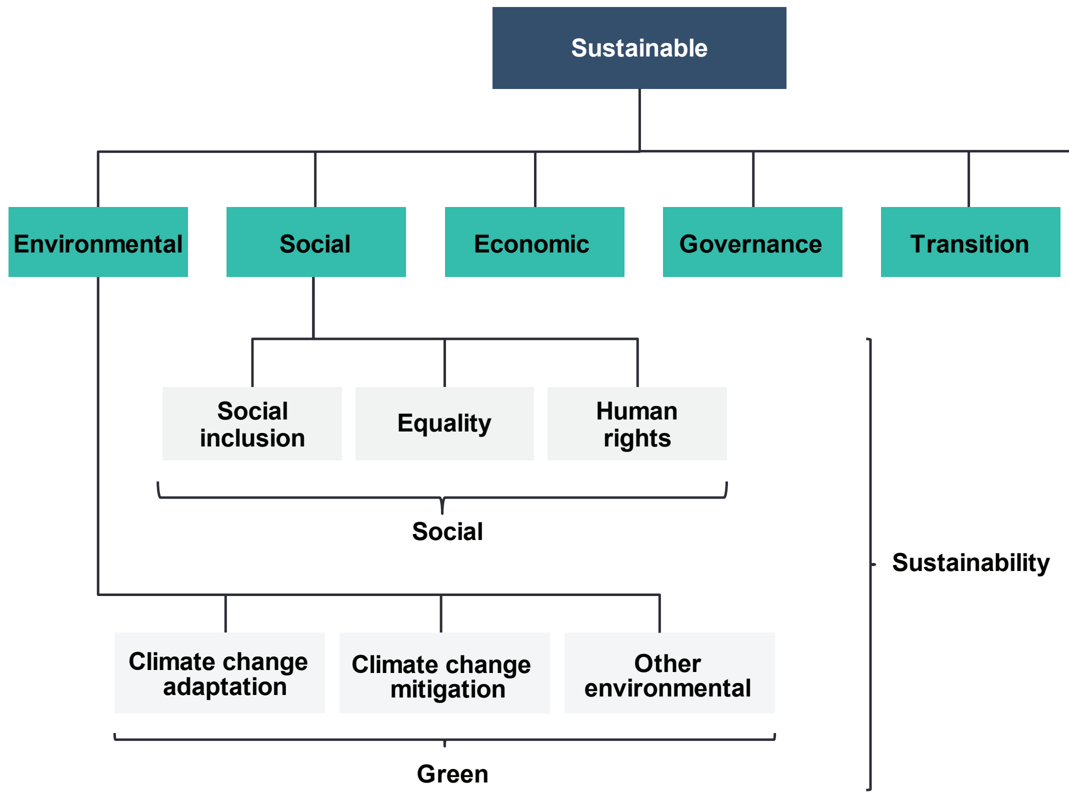
INTRODUCTION TO SUSTAINABLE BONDS

This chapter provides an overview of the different types of sustainable bond and the sustainable bond market landscape

Section 1.1 Introduction to sustainable bonds

Sustainable bonds are bonds where the proceeds will be used for projects that bring about sustainable development outcomes, including mitigating and adapting to the adverse effects of climate change.

There are several financial concepts related to sustainable bonds, such as “green bond”, “social bond”, “sustainability bond”, “transition bond” and “sustainability-linked bond”. It is commonly understood that each of these concepts represents a subset of sustainable bonds.



The table below summarizes the main features of the different types of sustainable bond. More information on each type of sustainable bond can be found in the respective section.

	Objectives & key features	Applicable standards*	Potential issuers
Green bond	Raise proceeds to finance or refinance green projects	• Green Bond Principles (GBP) by International Capital Market Association (ICMA), 2014 (updated 2018) • ASEAN Green Bond Standards (GBS) by ASEAN Capital Markets Forum (ACMF), 2017 (revised 2018) • Climate Bonds Standard (CBS) by Climate Bonds Initiative (CBI), 2017 (updated 2019)	Any industry with established green solutions such as renewable energy, transportation, water management and green buildings
Social bond	Raise proceeds to finance or refinance social projects. A sub-category of social bonds are gender bonds, which aim to improve gender equality	• Social Bond Principles (SBP) by ICMA, 2018 (updated 2020) • ASEAN Social Bond Standards by ACMF, 2018	Any industry as social bonds address wide-ranging social issues such as access to essential services, employment, pandemic recovery, etc. Majority of the social bonds issued in 2020 were from government-backed entities
Sustainability bond	Raise proceeds to finance or refinance a combination of social and environmental projects	• Sustainability Bond Guidelines by ICMA, 2018 • ASEAN Sustainability Bond Standards by ACMF, 2018	Any industry as sustainability projects are wide-ranging. Majority of the sustainability bonds issued in 2020 were from development bank

Transition Bond	Raise proceeds for carbon-intensive sectors aiming to green their operations via investments, but do not fulfill the strict definition of a green or social project	• AXA Guidelines for Transition Bonds, 2020 • Financing credible transitions (White Paper) by CBI, 2020 • Climate Transition Finance Handbook by ICMA, 2020	Carbon-intensive industries such as traditional energy, transportation and agriculture trades
Sustainability-linked bond	• Sustainability performance-linked financing for general corporate purposes • Set sustainability performance targets (SPTs) that are in line with the borrower's overall sustainability goals • Interest rates tied to borrower's performance in sustainability	SLB Principles (SLBP) by ICMA, 2020	Any industry with sustainability/ ESG objectives

*ICMA has issued updated green, social and sustainability bond standards in 2021. We have also published comparisons of older and latest version of the standards in a separate document. Unless stated otherwise, all standards mentioned in this document refer to the older version (GBP 2018, SBP 2020, SBG 2018).

Unless stated otherwise, the standards issued by ICMA are used as the basis for this guide.

Section 1.2 Sustainable bond market landscape

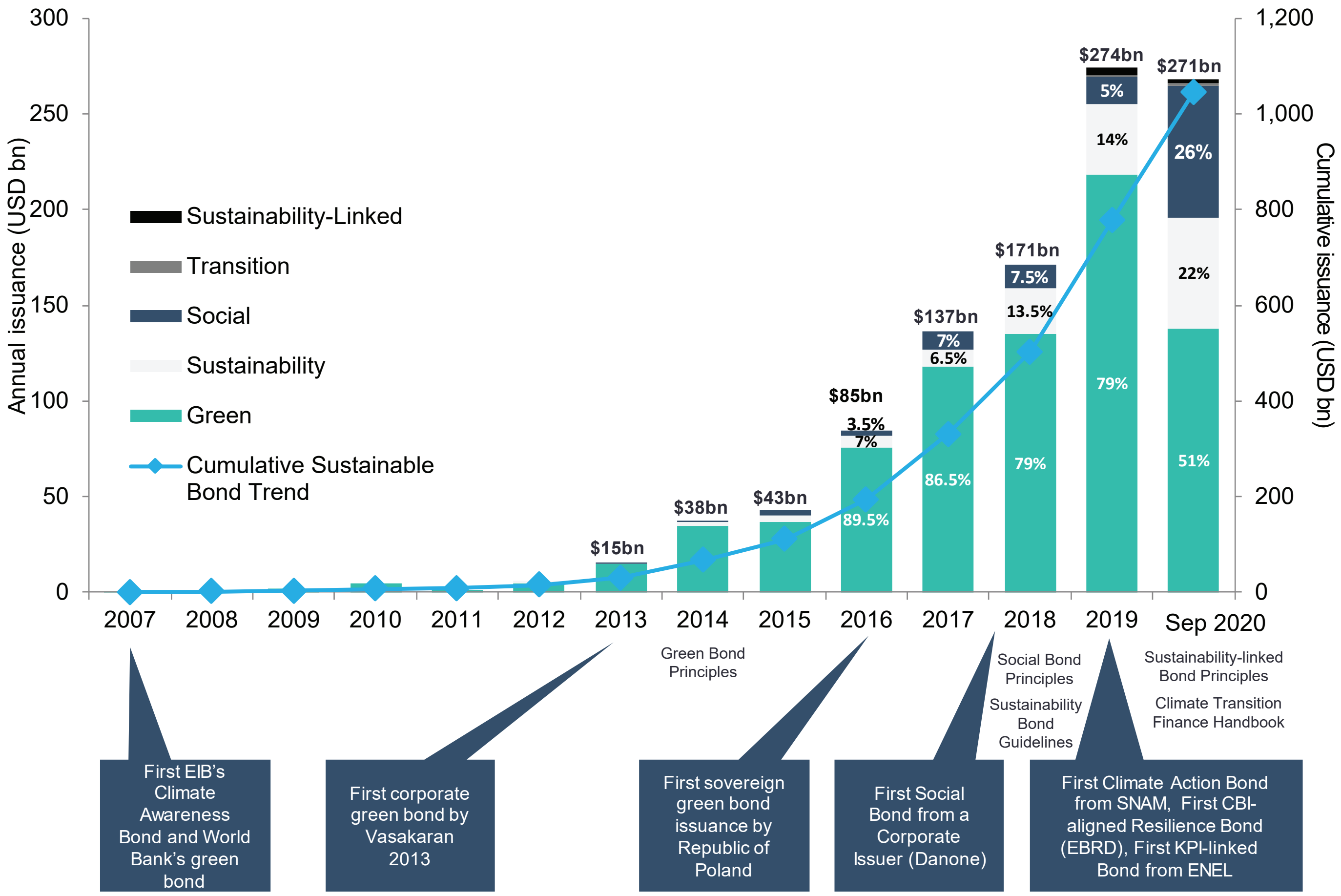
The sustainable bond market has matured significantly since the issuance of the first green bond in 2007. The total cumulative issuance of sustainable bonds was approximately USD 1,046 billion in September 2020. The total sustainable bond issuance from January to September 2020 has amounted to USD 271 billion, approximately 1.5 times higher compared to the same period last year.

The majority of sustainable bonds issued are green bonds. In 2019, 79% of the sustainable bonds issued were green bonds, followed by sustainability bonds at 14% and social bonds at 5%.

SLBs and transition bonds are relatively new to the market and have yet to show obvious growth or uptake. In 2019, approximately USD 3 billion and USD 0.6 billion of SLBs and transition bonds were issued respectively. JP Morgan expects there to be significant growth of SLB in 2021, with estimated value of USD 150 billion[1].

The graph below presents the growth of sustainable bonds since 2007.

Growth of sustainable bonds globally[2]



More data on sustainable bond issuances can be found in Annex B.

Source: [1]"JPMorgan's ESG Debt Head Expects Sustainability-Linked Bond Boom", https://www.bloomberg.com/news/articles/2021-02-04/jpmorgan-s-esg-debt-head-expects-sustainability-linked-bond-boom, accessed on 12 April 2021

[2] Bloomberg, BNP Paribas, as of 11 September 2020

SUSTAINABLE BOND ISSUANCE GUIDE

SUSTAINABLE BOND ISSUANCE GUIDE

02

OVERVIEW OF THE SUSTAINABLE BOND ISSUANCE PROCESS

This chapter provides an overview of the sustainable bond issuance process

Section 2.1 Overview of the sustainable bond issuance process

Generally, the issuance process among the different types of sustainable bond is similar. A standard sustainable bond issuance process consists of the following steps:

Gender considerations can be part of the sustainable bond issuance irrespective of the thematic focus of the bond. Issuers can select gender indicators that are the most relevant for the type of projects and activities it plans to finance from the bond proceeds. These indicators can be included alongside other sustainable criteria. More information on gender mainstreaming in bond issuances can be found in Chapter 8.

Section 2.2 Sustainable bond pre-issuance process

Section 2.2.1 Identification of use of proceeds

The first step the issuer should take prior to issuing a sustainable bond is to identify how the proceeds from the sustainable bond are to be used i.e. identify the relevant projects or assets to be financed or refinanced by the bond.

Sustainable bonds can be classified as "allocated" or "unallocated". Allocated is where the proceeds from the bond will be spent in full to specific and pre-identified projects. Unallocated or partially unallocated is where the proceeds from the bond will be spent within a defined timeframe to fund a range of projects or assets that are not necessarily all identified at the time of issuance. The sustainable bond framework is of particular importance as it will describe the types of projects and assets eligible for the use of proceeds and give confidence to investors that the proceeds will eventually be allocated to the right asset class and deliver impact. An example of an allocated bond is the green bond issued by B.Grimm, where the proceeds from the bond are spent in full on pre-identified projects, namely B.Grimm's nine operational 67.7MW and seven new 30.8MW solar power plants. The Bank for Agriculture and Agricultural Cooperatives (BAAC) green bond is an example of unallocated bond, where there are no specific pre-identified projects at the time of issuance, with the process to select eligible projects outlined in the BAAC green bond framework. Detailed case studies of these bonds can be found in Annex C.

Section 2.2.2 Selection of sustainable bond standard

Currently, there is no universally agreed standard for a sustainable bond framework and the activities it can fund. Issuers can refer to several widely adopted standards published by ICMA, ACMF and CBI, for guidance in drafting their sustainable bond framework. More information on the available standards can be found in the respective chapters.

Section 2.2.3 Development of sustainable bond framework

Issuers are required to prepare a document that outlines the principles governing the issuance process. This is the framework.

Unless stated otherwise, the standards issued by ICMA are used as the basis for this guide. Generally, there are four core components of a sustainable bond framework:

1. **Use of proceeds**
   Identify categories of sustainable assets/ projects
2. **Process for project evaluation and selection**
   Select projects based on the criteria established
3. **Management of proceeds**
   Manage receipt and allocation of funds raised
4. **Reporting**
   Report annually on continuing eligibility, allocation and impact until all proceeds are allocated

Section 2.2 Sustainable bond pre-issuance process

The following describes each of the components.

1 Use of proceeds

Issuers need to define the sustainable projects that the proceeds will be or can be used for. Each type of sustainable bond has different definitions and requirements for its use of proceeds. More information on the use of proceeds for each sustainable bond can be found in the relevant chapters of this guide.

In addition to new sustainable projects, sustainable bond proceeds can be used to refinance existing sustainable projects. In the case of refinancing, it is recommended that issuers provide information to investors regarding: (i) an estimate of the amount (or share) of proceeds allocated to financing vs. re-financing, (ii) which sustainable projects or categories may be refinanced and (iii) the expected look-back period for refinanced sustainable projects, where relevant. In the case where the share of proceeds allocated to new sustainable projects exceeds that of the refinancing portion, providing an estimate (or share) of the proceeds allocated to a new project may enhance the reputation of the sustainable bond.

2 Process for project evaluation and selection

Once the eligibility criteria are defined, issuers are required to select the sustainable projects that will receive the funds raised from the sustainable bond issued. The purpose of this step is to develop and/or improve the internal process for project selection and hence establish conditions for effective communication with investors at the time of the sustainable bond offering.

3 Management of proceeds

Issuers must demonstrate the sources and uses of funds for the sustainable bond. Issuers should include in the framework document the procedures that will be adopted to collect and allocate the proceeds for the sustainable projects, including refinancing and reimbursement of related costs, expenses and debts.

4 Reporting

Issuers should make and keep readily available up to date information on the use of proceeds, to be renewed annually until full allocation, and as necessary thereafter in the event of new developments and/or material development related to the projects, including ESG controversies and issues. In the framework, the issuers should provide information on the intended approach to provide the reporting (e.g. annually, etc.).

Section 2.2.4 Pre-issuance external review

ICMA recommends that issuers appoint (an) external reviewer(s) to confirm alignment of their bond with the selected standard. Independent external reviews may vary in scope and may address a sustainable bond framework, an individual sustainable bond issuance, the underlying assets and/or procedures. External reviewers are broadly categorized into the following types:

Second party opinion

Assessment by an external party on the alignment of the issuer's sustainable bond framework to sustainable bond standards. It can also include assessment of the issuers' overarching objectives, strategy, policy and/or processes relating to environmental sustainability and evaluation of the environmental features of the type of projects intended for the use of proceeds

Service providers: ESG service providers, scientific experts and environmental consultants such as Sustainalytics, CICERO, DNV GL, etc.

Verification/Assurance*

Confirmation from external party that the sustainable bond, framework or underlying assets are aligned with internal/ external standards or claims made by issuer

Service providers: Audit or consulting firms such as EY, KPMG, PwC, etc.

Sustainable bond rating/Scoring

Evaluation of the sustainable bond or framework against third-party rating methodology

Service providers: Rating agencies such as Moody's Sustainalytics, S&P Ratings, etc.

Certification

Certification from a recognized external sustainable standard or label on the sustainable bond or associated sustainable bond framework or the use of proceeds

Service providers: Climate Bond Standard (CBS) is currently the only certification available for green bonds

*Sample documents for pre-issuance assurance can be found in Annex D.

For pre-issuance external review, the report should be presented to investors at the time of disclosure of the offer and in the marketing process.

Section 2.3 Sustainable bond issuance

Section 2.3.1 Sustainable bond issuance

The preparation for a sustainable bond offering is similar to that of a conventional bond as the difference between the two is the intended use of proceeds and not the issuance process itself.

The preparation of the offer includes preparation of a series of documents to support the issuance such as prospectus, rating report (optional), audited financial statements, etc. Once the offer is structured, the issuer will present it to potential investors through roadshows, with the support of underwriters. Investors will then sign the subscription agreement and receive the bonds from the issuer in exchange for payment of the purchase price of the bonds.

Section 2.4 Sustainable bond post-issuance process

Section 2.4.1 Management of proceeds

Once the sustainable bond proceeds are received, issuers need to allocate proceeds to the nominated projects and track the allocation of proceeds in accordance with the method stated in the framework.

Section 2.4.2 Reporting

Similarly, issuers should report the use of proceeds as often as indicated in their sustainable bond framework. More information on the format of post-issuance reporting for each type of sustainable bond can be found in its respective section.

Section 2.4.3 Post-issuance external review

Similar to the pre-issuance external review, issuers are recommended to engage (an) external reviewer(s) to undertake an assessment of the sustainable bond issued. Sample documents for post-issuance assurance can be found in Annex D.

GREEN BOND
ISSUANCE PROCESS

This chapter lays out the components of a green bond framework and compares the different standards available for a green bond

Section 3.1 What are green bonds?

Green bonds are used to finance or refinance projects or assets that have positive environmental benefits. The assets or projects may be either new or existing and are referred to as green projects. The green bond issuance process follows the standard sustainable bond issuance process, which can be found in Chapter 2.

Section 3.2 Components of a green bond framework

There are four core components of a green bond framework: (i) use of proceeds, (ii) process for project evaluation and selection, (iii) management of proceeds and (iv) reporting. The following sections describe each of the components, based on the Green Bond Principles (GBP) by ICMA.

Section 3.2.1 Use of proceeds

Issuers need to define the green projects that the proceeds will be or can be used for. The green projects should provide clear environmental benefits, which will be assessed and, where feasible, quantified by the issuer. The table below presents examples of categories of eligible projects for green bond issuance. Note that this is non-exhaustive.

Categories	Examples
Renewable energy	• Generation, transmission, storage or usage of solar, wind, bioenergy, hydropower, tidal or geothermal
Energy efficiency	• Sustainable buildings (new and refurbished) • Efficient storage systems • Efficient hearing systems • Smart grids
Pollution prevention and control	• Reduction of air emissions • Greenhouse gas control • Soil remediation • Waste prevention • Waste reduction • Waste recycling • Energy/ emission-efficient waste to energy
Environmentally sustainable management of living natural resources and land use	• Environmentally sustainable agriculture • Environmentally sustainable animal husbandry • Climate smart farm inputs such as biological crop protection or drip-irrigation • Environmentally sustainable fishery and aquaculture • Environmentally sustainable forestry, including afforestation or reforestation • Preservation or restoration of natural landscapes
Terrestrial and aquatic biodiversity conservation	• Protection of coastal, marine and watershed environments
Clean transportation	• Production and use of electric and hybrid • Railway and subway • Non-motorized vehicle • Multi-modal transportation • Infrastructure for clean energy vehicles and reduction of harmful emissions

Categories	Examples
Sustainable water and wastewater management	• Sustainable infrastructure for clean and/or drinking water • Wastewater treatment • Sustainable urban drainage systems and river training and other forms of flooding mitigation
Climate change adaptation	• Information support systems, such as climate observation and early warning systems
Eco-efficient and/or circular economy adapted products, production technologies and processes	• Development and introduction of environmentally sustainable products, with an eco-label or environmental certification, resource-efficient packaging and distribution
Green buildings	• Green buildings that meet regional, national or internationally recognized standards or certifications

Section 3.2 Components of a green bond framework

Section 3.2.2 Process for project evaluation and selection

In accordance with the GBP, issuers should clearly communicate to investors:

- The environmental sustainability objectives that issuers intend to achieve through the green bond issuance
- The related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks associated with the projects. Examples of "criteria" for evaluation and selection of green projects:
  - Projects should fall under the business categories specified for the use of proceeds in the framework or selected standards (GBP, ASEAN GBS, CBS, etc.)
  - Projects for renewable energy should not fall under the projects categories with significant negative effects on the environment as specified in the Equator Principles
  - Projects in the category of energy efficient buildings should be certified by environmental certification systems such as Leadership in Energy and Environmental Design (LEED), Comprehensive Assessment System for Built Environment Efficiency (CASBEE) and Building-Energy-efficiency Labeling System (BELS)
- The process by which issuers determine how the projects fit within the eligible green project categories identified in the use of proceeds section

Section 3.2.3 Management of proceeds

The green bond proceeds should be:

- Credited to a sub-account or
- Allocated to a sub-portfolio or
- Managed through other formal internal processes which enable the issuer to prove that the proceeds are used for financing or refinancing of the green projects stated under the use of proceeds section in the green bond framework

As long as the green bond is still outstanding, only the amount allocated to eligible projects can be discounted from the balance of the monitored

Section 3.2 Components of a green bond framework

resources. Issuers should also report the intended types of temporary placement for the balance of unallocated net proceeds.

The look-back period for refinancing and duration for temporary placement of proceeds are recommended to be included in the framework.

Section 3.2.4 Reporting

The annual report should include:

- Project name and brief description of eligible expenditure
- Amount of green bond financing approved, including share of total financing accounted for by the green bond in case other financiers participate in funding the project
- Amount allocated and percent of allocation disbursed to date
- Temporary placement of remaining proceeds, if applicable
- Progress-to-date in qualitative or quantitative terms (as applicable, if projects are in development phase)
- Expected impacts of each green project
- Any material development related to the projects, including ESG controversies and issues

GBP recommends that information is presented in generic terms or on an aggregated portfolio basis (e.g. % allocated to certain project categories) if there are confidentiality agreements or competitive considerations, etc.

Section 3.2 Components of a green bond framework

The expected impact may be reported through impact indicators, which may be qualitative or quantitative (preferable). Issuers are also recommended to disclose the key underlying methodology and/or assumptions used in the quantitative determination.

Categories	Examples of indicators
RENEWABLE ENERGY (RE)	
Annual generation of RE	MWh/GWh (electric) or GJ/TJ (other energy forms)
RE generation capacity of the project (new or existing)	MW/GW
Capacity of the RE project/plant to use power transmission systems	MW
RE consumption	% of total power consumption
Annual reduction of Greenhouse Gases (GHG) emissions/ avoided emissions	Tons of CO_2 equivalent
GHG absolute emissions (annual) of the project	Tons of CO_2 equivalent

SUSTAINABLE BOND ISSUANCE GUIDE

Categories	Examples of indicators
ENERGY EFFICIENCY	
Annual reduction of power consumption	MWh/GWh (electric) or GJ/TJ (other energy forms)
Annual reduction of GHG emissions (avoided emissions)	Tons of CO_2 equivalent
GHG absolute emissions (annual) of the project	Tons of CO_2 equivalent
POLLUTION PREVENTION AND CONTROL	
Waste generation reduction	Tons
Amount of recycled wastes	Tons
Contaminated areas recovered	Tons of soil/contaminants/pollutants treated
	Square meters
ENVIRONMENTALLY SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES AND LAND USE	
Annual reduction of GHG (direct or indirect)/avoided emissions	Tons of CO_2 equivalent
Annual GHG balance (emissions and removals)	Tons of CO_2 equivalent
Annual increase in productivity	Tons/hectare
Reforested/restored area	Hectares or % of the area
Degraded area recovered	Hectares or % of the area
Increase in adoption of integrated production systems	Hectares
Increase in adoption of good agricultural practices (e.g. zero tillage)	Hectares or % of the area
Reduction in the application of pesticides	kg of active ingredients per hectare/year
Reduction in the use of chemical fertilizers	kg/hectare/year
Sustainable forest management	Hectares or production volume or % production

Section 3.2 Components of a green bond framework

Categories	Examples of indicators
TERRESTRIAL AND AQUATIC BIODIVERSITY CONSERVATION	
Biodiversity monitoring	Number of individuals and species identified
Increase of the population of endangered species	Increase of the number of individuals of endangered species
Protected or restored habitats	Hectares
Deployment of Protected Areas (e.g. Conservation Unit or Indigenous People's Land)	Hectares
Forest/native vegetation restoration	Hectares
CLEAN TRANSPORTATION	
Absolute annual reduction of GHG emissions/avoided emissions	Tons of CO_2 equivalent
Reduction of GHG emissions/avoided emissions	Tons of CO_2 equivalent/km
Absolute annual reduction of pollutant emissions (non-GHG)	Tons of the pollutant
Reduction of pollutant emissions (non-GHG)	Tons of the pollutant/km
SUSTAINABLE WATER AND WASTEWATER MANAGEMENT	
Reuse of water	Cubic meters or % of total use
Annual reduction of water consumption	Cubic meters
Annual reduction of water impoundment	Cubic meters
Water and effluent treatment	Cubic meters of water/effluent treated
CLIMATE CHANGE ADAPTATION	
Use or development of more resistant varieties	Reduction of production losses (ton, % or $)
Reforestation for protection against floods	Hectares
Resilience infrastructure: construction/adaptation of dams and/or other structures	Benefited area Number of benefited individuals
Avoided deforestation	Tons of CO_2 equivalent

Categories	Examples of indicators
ECO-EFFICIENT AND/OR CIRCULAR ECONOMY ADAPTED PRODUCTS, PRODUCTION TECHNOLOGIES AND PROCESSES	
Attested certification of sustainability	Annual certified production volume or % of certified production
Reduction of the use of materials	Tons of raw materials/year
GREEN BUILDINGS	
% of RE generated on site (specifying the relevant RE form)	%
% of energy use reduced/avoided vs local baseline/ building code	%
Carbon reduction	$kgCO_2/m^2$ of Gross Building Area (GBA) p.a.
Water efficiency	m^3/ m^2 of GBA p.a
Amount p.a. of waste minimized, reused or recycled in % of total waste	%

The following are sample report templates provided by the ICMA:

Category (e.g. RE, Energy efficiency, etc.)	Signed Amount[1]	Share of Total Project Financing[2]	Eligibility for green bonds	Category component	Allocated Amount[3]	Project / portfolio lifetime[4]	Impact indicators[5]
Project name	currency	%	% of signed amount	% of signed amount	currency	In years	

Note:

[1]Signed amount represents the amount legally committed by the issuer for the project, a portfolio of projects or component that is/are eligible for green bond financing.

[2]Share of the total project cost that is financed by the issuer. Issuers may also report the total project cost (i.e. all cost related to acquisition, design, development, construction, debt financing etc. up to completion of project). When aggregating impact metrics only the pro-rated share should be included in the total.

[3]This represents the amount of green bond proceeds that has been allocated for disbursements to the project/portfolio.

[4]Based on either the expected economic life or financial life of the project(s), if applicable. Issuers should disclose the reporting basis used.

[5]The methodology and assumptions used should be disclosed for calculations in quantitative reporting.

Section 3.2 Components of a green bond framework

Examples of a report:

Renewable energy	Signed Amount	Share of Total Project Financing	Eligibility for green bonds	RE component	Allocated Amount	Project / portfolio lifetime	Indicator 1: Annual generation (electricity/ other)	Indicator 2: Renewable energy capacity added	Indicator 3: Annual GHG emissions reduced/ avoided
Project ABC	USD 300 million	80%	100%	80%	USD 60 million	12 years	800 GWh	250 MW	30,000 ton of CO_2 equivalent

Note on how to read the report:

- The total project cost (i.e. all cost related to acquisition, design, development, construction, debt financing etc. up to completion of project) for project ABC is USD 375 million. Out of this, the issuer is committed to finance USD 300 million of the total project cost, i.e. 80% of the total project cost. All of the signed amount (i.e. USD 300 million) is eligible for green bonds. 80% of the signed amount falls into renewable energy category (i.e. USD 240 million) and USD 60 million has been allocated to project ABC. The project lifetime of 12 years signifies the duration for impact reporting for the project, which is based on either expected economic life or financial life of the project. There are 3 impact indicators reported for project ABC (i.e. annual electricity generation, renewable energy capacity added and annual GHG emissions reduced/avoided)

Case studies of green bonds that have been issued can be found in Annex C.

Section 3.3 Green bond standards

Currently, there are no universally agreed standards for a green bond framework and the activities a green bond can fund. Issuers can refer to several widely adopted green bond standards for guidance in drafting their green bond framework: the ICMA GBP, the ASEAN GBS and the CBS. A comparison of these 3 standards can be found below.

Components	Green Bond Principles	ASEAN Green Bond Standards	Climate Bonds Standard
Use of Proceeds	Provides broad guidance to issuers on the definition of green projects. Includes, but not limited to: • Renewable energy • Energy efficiency • Pollution prevention and control • Environmentally sustainable management of living natural resources and land use • Terrestrial and aquatic biodiversity conservation • Clean transportation • Sustainable water and wastewater management • Climate change adaptation • Eco-efficient and/or circular economy adapted products, production technologies and processes • Green buildings which meet regional, national or internationally recognized standards or certifications		Provides more definitive definitions on eligible green projects/assets via a taxonomy In addition to providing a list of asset types, the Climate Bond Taxonomy, includes additional screening indicators to qualify an asset as eligible: • Energy • Transport • Water • Buildings • Land use and marine resources • Industry • Waste and pollution control • ICT
	No exclusion	Excludes fossil fuel power generation from its list of eligible sectors	No exclusion
Process for Project Evaluation and Selection	Requirements for the process of project evaluation and selection are largely aligned across standards. A clear process needs to be established prior to the issuance and supported by an external review.		
Management of Proceeds	For unallocated proceeds, disclosing the use of temporary placements is recommended, without prescribing the use of unallocated proceeds.		Provides specific requirements for temporary allocation of unallocated proceeds to protect the integrity of the issuance. Requires net proceeds to be allocated within 24 months of bond issuance
Reporting	Issuers should make and keep readily available up to date information annually until full allocation, and as necessary thereafter in the event of material developments.	Annual reporting is mandatory until full allocation and as necessary thereafter in the event of material developments.	Annual reporting is mandatory to maintain certification of the bond.
Assurance	Pre-issuance assurance is recommended to confirm alignment of the bond with the GBP and ASEAN GBS.		Pre-issuance assurance is a requirement to confirm compliance with requirements under CBS.
	Post-issuance assurance is recommended to confirm alignment of bond with green bond frameworks and the relevant standards. Accreditation of external verifiers is not a requirement under GBP and ASEAN GBS.		Post-issuance assurance is a requirement within one year of issuance of bonds to confirm compliance with post-issuance requirements under CBS. External verifiers have to be accredited by the Climate Bond Initiative.

04

SUSTAINABLE BOND ISSUANCE GUIDE

SOCIAL BOND ISSUANCE PROCESS

This chapter lays out the components of a social bond framework and compares the different standards available for a social bond

Section 4.1 What are social bonds?

Social bonds are used to finance or refinance new and/or existing projects that address or mitigate a specific social issue and/or seek to achieve positive social outcomes especially but not exclusively for a target population(s). A social issue hinders, threatens or damages the well-being of society or a specific target population. It is acknowledged that the definition of target population can vary depending on local contexts and in some cases target population may also refer to the general public.

The social bond issuance process follows the standard sustainable bond issuance process, which can be found in Chapter 2.

Section 4.2 Components of a social bond framework

There are four core components of a social bond framework: (i) use of proceeds, (ii) process for project evaluation and selection, (iii) management of proceeds and (iv) reporting. The following sections describe each of the components, based on the ICMA SBP.

Section 4.2.1 Use of proceeds

Issuers need to define the social projects that the proceeds will be or can be used for. The social projects should provide clear social benefits, which will be assessed and, where feasible, quantified by the issuer. Social project categories include, but are not limited to, providing and/or promoting:

Categories	Examples
Affordable basic infrastructure	Clean drinking water, sewers, sanitation, transport, energy
Access to essential services	Health, education and vocational training, healthcare, financing and financial services
Affordable housing	Construction, renovation and maintenance, provision of housing loans, development and provision of rental housing
Employment generation, and programs designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, including through the potential effect of Small and medium-sized enterprise (SME) financing and microfinance	
Food security and sustainable food systems	Physical, social, and economic access to safe, nutritious, and sufficient food that meets dietary needs and requirements; resilient agricultural practices; reduction of food loss and waste; and improved productivity of small-scale producers
Socioeconomic advancement and empowerment	Equitable access to and control over assets, services, resources, and opportunities; equitable participation and integration into the market and society, including reduction of income inequality

Examples of target populations include, but are not limited to, those that are:

1. Living below the poverty line
2. Excluded and/or marginalized populations and /or communities
3. People with disabilities
4. Migrants and /or displaced persons
5. Undereducated
6. Underserved, owing to a lack of quality access to essential goods and services
7. Unemployed
8. Women and/or sexual and gender minorities
9. Aging populations and vulnerable youth
10. Other vulnerable groups, including as a result of natural disasters

Section 4.2.2 Process for project evaluation and selection

In accordance with the SBP, issuers should clearly communicate to investors:

- The social objectives that issuers intend to achieve through the social bond issuance
- The related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material social and environmental risks associated with the projects.

  Examples of "criteria" for evaluation and selection of social projects:

  - Projects should fall under the business categories specified for the use of proceeds in the framework or selected standards (SBP, ASEAN SBS)
- The process by which issuers determine how the projects fit within the eligible social projects categories identified in the use of proceeds section

Section 4.2.3 Management of proceeds

The social bond proceeds should be:

- Credited to a sub-account or
- Allocated to a sub-portfolio or
- Managed through other formal internal processes which enable the issuer to prove that the proceeds are used for financing or refinancing of the social projects stated under the use of proceeds section in the social bond framework

As long as the social bond is still outstanding, only the amount allocated to eligible projects can be discounted from the balance of the monitored resources. Issuers should also report the intended types of temporary placement for the balance of unallocated net proceeds.

The look-back period for refinancing and duration for temporary placement of proceeds are recommended to be included in the framework.

Section 4.2.4 Reporting

The annual report should include:

- Project name and brief description of the project
- Amount of social bond financing approved, including share of total financing accounted for by the social bond in case other financiers participate in funding the project
- Amount allocated and percent of allocation disbursed to date
- Temporary placement of remaining proceeds, if applicable
- Progress-to-date in qualitative or quantitative terms (as applicable, if projects are in development phase)
- Expected impact of each social projects

SBP recommends that information is presented in generic terms or aggregated portfolio basis (e.g. % allocated to certain project categories) if there is confidentiality agreement, competitive considerations, etc.

The expected impact may be reported through impact indicators, which may be qualitative or quantitative (preferable). Issuers are also recommended to disclose the key underlying methodology and/or assumptions used in the quantitative determination. The following are the examples of impact indicators. Note that the list is not exhaustive.

Section 4.2 Components of a social bond framework

OUTPUT	OUTCOME	IMPACT
Health		
Patients reached	Hospital bed density	Life expectancy
Number of places and beds		% population with inability to access medical care
Number of hospitals and other healthcare facilities built/upgrade	Personnel density	Infant mortality (< 1 year)
Number of residents benefitting from healthcare	Cost reduction for standard treatments and medicines	Childhood mortality (< 5 years)
Live births in hospitals	-	Maternal mortality
Number of children vaccinated		-
Education		
Students reached	-	School enrollment rate
Number of textbooks and teaching materials supplied		School dropout rate
Number of vulnerable students		Change in rate of early school leavers/School dropout rate
Number of people with a rare disease being provided access to services and adequate medication		Percentage of students with special educational needs in regular classrooms
Number of education facilities and/or initiatives		Percentage of population 25-64 who have completed their tertiary education
Teachers trained		Youth unemployment rate
		PISA-test results
		Teacher-student ratio
Financial services		
Number of people provided with access to financial services, including microfinance	-	-

OUTPUT	OUTCOME	IMPACT
Women empowerment		
Number of loans to women-owned SMEs	Number of equal paying jobs created for women and other under-represented gender groups	Women unemployment rate
Number of loans to women-owned microenterprises	Proportion of women in management positions	-
Number of women using technology products	-	-
Disadvantaged groups		
Number/ Share of disabled people employed	-	Rate of employment of people with disabilities
Beneficiaries of minimum benefits		Poverty-endangering rate
Number of smallholder farmers reached		Youth unemployment rate
Number of products and services serving low-income groups	-	Income wealth ratio
		Share of child labor
Number of vulnerable people benefitting from measures to mitigate the consequences of climate change such as natural disasters		Income per inhabitant
		GDP per inhabitant
Access to technology		
Number of SMEs that receive support for equipment and facilities and technological modernization	-	Share of people with mobile network
Number of loans granted to low-income households for installations of sustainability improvement technologies	-	-
Number of first-time internet connections	-	-
Employment generation		
Number of loans to SMEs and/or microenterprises	-	Rate of employment of people with disabilities
Number of disabled people employed	Rate of employment of people with disabilities	Jobs created and/or retained
Average loan size	-	-

Section 4.2 Components of a social bond framework

OUTPUT	OUTCOME	IMPACT
Food security		
Number of people reached	-	Share of target population with adequate food supply
Farmers reached		Prevalence of undernourishment
Hectares of land cultivated, which use has improved, i.e. replanted, reforested, landscaped		-
Number of people benefiting from agricultural projects and using improved farming technology		-
Water/Sanitation		
Number of water infrastructure projects built/upgraded	Percentage/size of populations provided access to clean water and/or sanitation	Treatment of hazardous waste (%)
Number of new household water connections	-	-
Number of people provided with adequate and equitable sanitation	-	-
Transport		
Kilometers of feeder roads rehabilitated/constructed	Number of people with access to sustainable transport systems	Share of barrier-free access
Length of sustainable road construction with equitable access	Number of residents benefitting from basic infrastructure new/upgraded which is otherwise not accessible (i.e. rail transportation, development road)	-
	Share of people with access to public transport	-
Power		
Number of new household power connections	-	-
Number of people provided access to clean and affordable energy	-	-

OUTPUT	OUTCOME	IMPACT
Affordable housing		
Number of dwellings	Rental costs compared to the national/regional rent index	-
Number of individuals/ families benefiting from subsidized housing	Average housing price	-
Disabled people with access to well-equipped dwellings	Financial effort of households to purchase housing	-
Participation (rate) of tenants	-	-
Share of under-served tenants	-	-

The following are samples of reporting templates for social portfolios/projects provided by ICMA:

Name	Project category			Target population	Allocation information					Social indicators[5]	
Project name	SBP category	Sub-category	SDG addressed (goal & target, as relevant)	Target group	Signed / budgeted amount ($)[1]	Share of total financing (%)[2]	Eligibility of social bond (% of signed amt.)[3]	Allocated amount ($)	Portfolio lifetime or budgeted years (years)[4]	Indicator 1 (#, unit of measure, absolute or relative)	Indicator n (#, unit of measure, absolute or relative)
Water project	Affordable basic infrastructure	Water	6.1	Underserved households with no water connection	USD 500 million	100%	100%	USD 500 million	5 years	1000 households connected (absolute)	

Note:

[1]Signed amount represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for social bond financing.

[2]Share of the total portfolio/total project cost that is financed by the issuer.

[3]Share of total portfolio/project cost that is eligible for social bond.

[4]Based on either the expected economic life or financial life of the project(s), if applicable.

[5]Indicators may include people, projects or facilities, for instance: number of people, hospitals, schools, care facilities etc. Specify if the given indicators are absolute or relative figures

Note on how to read the report:

- The total project cost (i.e. all cost related to acquisition, design, development, construction, debt financing etc. up to completion of project) for the water project is USD 500 million. Out of this, the issuer is committed to finance 100% of the total project cost. All of the signed amount (i.e. USD 500 million) is eligible for social bonds. All proceeds have been fully allocated. The project lifetime of 5 years signifies the duration for impact reporting for the project, which is based on either expected economic life or financial life of the project. There are a number of impact indicators reported for the water project ABC

Case studies of social bonds that have been issued can be found in Annex C.

Section 4.3 Social bond standards

Currently, there is no universally agreed standard for social bond frameworks and the activities a social bond can fund. Issuers can refer to two widely adopted social bond standards for guidance in drafting their social bond framework: the ICMA Social Bond Principles (SBP) and the ASEAN Social Bond Standards (ASEAN SBS). A comparison of these 2 standards can be found below.

Components	Social Bond Principles	ASEAN Social Bond Standards
Use of Proceeds	Provide broad guidance to issuers on the definition of social projects. Includes, but not limited to: • Affordable basic infrastructure • Access to essential services • Affordable housing • Employment generation • Food security • Socioeconomic advancement and empowerment	
	No exclusion	Excludes projects which involve alcohol gambling, tobacco and weaponry.
Project Evaluation and Selection	Requirements for the process for project evaluation and selection are largely aligned across standards. A clear process needs to be established prior to the issuance and supported by an external review.	
Management of Proceeds	Standards recommend ‘earmarking’ to provide investors with enough confidence that funds are allocated to social projects.	
	For unallocated proceeds, disclosing the use of temporary placements is recommended, without prescribing the use of unallocated proceeds.	
Reporting	Issuers should make and keep readily available up to date information annually until full allocation, and as necessary thereafter in the event of material developments.	Annual reporting is mandatory until full allocation and as necessary thereafter in the event of material developments.
Assurance	Pre-issuance assurance is recommended to confirm alignment of the bond with the SBP and ASEAN SBS.	
	Post-issuance assurance is recommended to confirm alignment of the bond with the social bond frameworks and the relevant standards.	

SUSTAINABILITY BOND ISSUANCE PROCESS

This chapter lays out the components of a sustainability bond framework and compares the different standards available for a sustainability bond

Section 5.1 What are sustainability bonds?

Sustainability bonds are used to finance or refinance a combination of both green and social projects. Some social projects may have environmental co-benefits and similarly, some green projects may also have social co-benefits. The classification of a use of proceeds bond as a green, social or sustainable should be determined by the issuer based on its primary objectives for the underlying projects.

The sustainability bond issuance process follows the standard sustainable bond issuance process, which can be found in Chapter 2.

Section 5.2 Components of a sustainability bond framework

The components of a sustainability bond follow that of the green and social bond framework:

(i) use of proceeds,

(ii) process for project evaluation and selection,

(iii) management of proceeds and

(iv) reporting. More information on the components can be found in Chapter 3 and Chapter 4.

Case studies of sustainability bonds that have been issued can be found in Annex C.

Section 5.3 Sustainability bond standards

Currently, there is no universally agreed standard for sustainability bond frameworks and the activities a sustainability bond can fund. Issuers can refer to several widely adopted sustainability bond standards for guidance in drafting their sustainability bond framework: the ICMA Sustainability Bond Guidelines and the ASEAN Sustainability Bond Standards. The issuer of a sustainability bond must comply with both the green and social bond requirements from any of the standards it adopts.

SUSTAINABLE BOND ISSUANCE GUIDE

TRANSITION BOND

ISSUANCE PROCESS

This chapter lays out the components of a transition bond framework and compares the different standards available for a transition bond

Section 6.1 What are transition bonds?

Transition bonds are used to finance or refinance new and/or existing eligible transition projects. It is a new asset class targeted at so-called 'brown industries', which are those with high greenhouse gas (GHG) emissions that are not able to issue green bonds due to a lack of green projects.

The transition bond issuance process follows the standard sustainable bond issuance process, which can be found in Chapter 2.

Section 6.2 Components of a transition bond framework

There are four core components of a transition bond framework: (i) use of proceeds, (ii) process for project evaluation and selection, (iii) management of proceeds and (iv) reporting. The following sections describe each of the components, based on AXA Guidelines for Transition Bonds.

Section 6.2.1 Use of proceeds

The proceeds raised from transition bond issuances should be used to finance projects that meet pre-defined criteria for climate transition-related activities.

The table below presents examples of transition project categories. This is non-exhaustive.

Categories	Examples
Energy	• Cogeneration plants (gas powered combine heat and power (CHP)) • Carbon capture storage[1] • Gas transport infrastructure which can be switched to lower carbon intensity fuels • Coal-to-gas fuel switch in defined geographical areas, with defined carbon avoidance performance • Waste-to-energy
Transportation	• Gas powered ships • Aircraft alternative fuels
Industry	• Cement, metals or glass energy efficiency investments – such as to reduce clinker ratio, use of recycled raw materials, smelting reduction and higher recycling

[1]Carbon capture and storage is the process of capturing carbon dioxide emitted during power generation and industrial processes and storing it so that it will not enter the atmosphere

Section 6.2.2 Process for project evaluation and selection

Issuers should provide investors with a clear description of the eligible assets, the eligibility criteria and the asset selection process. Issuers should provide an explanation of why these projects are important to finance from the perspective of commercial transformation and climate transition.

The AXA guidelines encourage issuers to provide details of the projects' environmental objective and expected outcomes and impacts. Issuers should also consider whether the projects could lead to negative externalities which may harm other societal and environmental aims, such as those described in the United Nations Sustainable Development Goals.

Section 6.2.3 Management of proceeds

The net proceeds from a transition bond issuance should be tracked in a formal internal process, with the method verified by external audit, to ensure that the proceeds are effectively allocated to eligible projects.

Section 6.2.4 Reporting

AXA acknowledges the importance of regular and comparable reporting on the environmental performance and outcomes of the transition projects.

Issuers should publicly report:

- Proportion of financing vs. refinancing
- Projects to which proceeds have been allocated (and if relevant the remaining unallocated proceeds) and the amounts allocated to each project
- Projects' estimated environmental and social performance and impact with appropriate indicators. AXA encourages issuers to use indicators developed by the ICMA Green Bond Principles. Issuers can also provide explanation of the underlying methodology for the impact assessment. Indicator should be provided at an aggregated level and where possible also reported as per million dollar invested in the bond for investors to directly calculate the impact of its investment. Examples of the indicators:

- Energy efficiency gains for industrial activities that consume a lot of power
- Avoiding greenhouse gas emissions
- Reduction in the use of natural sources
- Improvement in availability and access to cleaner energy
- Increasing resilience of operation to climate change

AXA recommends that issuers get the above information externally certified and publish this information in their annual report.

Section 6.2.5 Issuer's sustainability strategy

This is an additional component that is not explicitly referred to in the GBP but many leading investors are actively considering when assessing sustainable bonds for investment. AXA believes that consideration of issuer level practices is important to legitimize transition bonds as an environmental investment.

- Issuers should clearly communicate what climate transition means in the context of issuers' current business model and future strategic direction. The senior management and board of directors should make a commitment to align an issuers' business with meeting the Conference of Parties (21st meeting) (COP21) Paris Agreement goals[1]
- The issuers' transition strategies should be intentional, material, measurable and must fit into the broader transaction strategy defined by quantified short and long term environmental objectives
- Issuers should quantify shorter targets to assess their progress against their transition pathway. AXA recommends issuers to provide explanation of their board and senior management's strategic decision-making process and the capital expenditures needed to meet these targets. Issuers should ensure that their broader sustainability practices, such as policies and programs, are capable of helping achieve the objectives

Case studies of transition bonds that have been issued can be found in Annex C.

[1]Paris Agreement is a legally binding international treaty on climate change. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

Section 6.3 Transition bond standards

Currently, there is no universally agreed standard for transition bond frameworks and the activities a transition bond can fund. In June 2019, the AXA Guidelines for Transition Bonds were published which provide the basis of this chapter. In addition, two recent publications by the ICMA and CBI on transition financing provide additional guidance.

Financing credible transitions (White Paper) by CBI

Issued in September 2020, this whitepaper aims to define what is meant by 'transition' and puts forward a framework for the use of the label 'transition', and how this is different to 'green'. The paper builds on and aligns with the CBI's taxonomy, the EU taxonomy and the GBP by ICMA.

The CBI proposes 5 principles for an ambitious transition:

1. **In line with 1.5 degree trajectory**
   All goals and pathways need to align with nearly halving emissions by 2030 and zero carbon by 2050.

2. **Established by science**
   All goals and pathways must be led by scientific experts and harmonized across countries.

3. **Offsets do not count**
   Credible transition goals and pathways do not count offsets, but should count upstream scope 3 emissions. Upstream scope 3 emissions are emissions relating to purchased goods and services within issuers' supply chain.

4. **Technological viability trumps economic competitiveness**
   Pathways must include an assessment of both current and expected technologies. Where a viable technology exists, even if it is more expensive, it should be used to determine the decarbonization pathway for that economic activity.

5. **Action not pledges**
   A credible transition is backed by operating metrics rather than just commitments/pledges to follow a transition pathway.

The paper also groups economic activities into 5 categories:

NEAR ZERO

Activities **already at or near net-zero emissions** that may require further decarbonization but not a significant transition - e.g. wind power generation

PATHWAY TO ZERO

Activities **needed beyond 2050** and have a **clear 1.5 degree decarbonization** pathway – e.g. shipping

NO PATHWAY TO ZERO

Activities that are **needed beyond 2050** but **currently do not have a clear 1.5 degree decarbonization** pathway to 2050 – e.g. long-haul passenger aviation

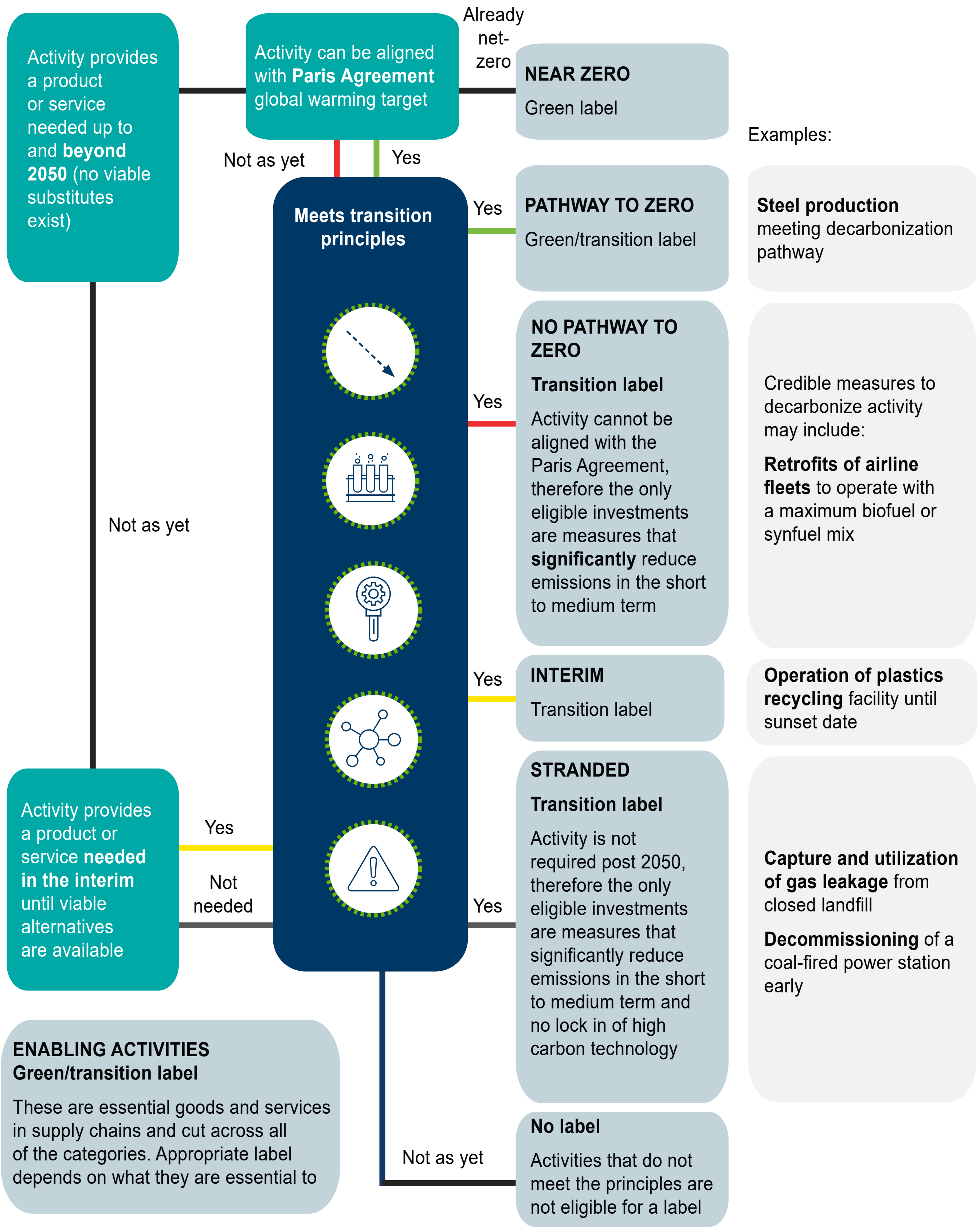
INTERIM

Activities **currently needed** but **should be phased out by 2050** – e.g. production of energy from municipal waste

STRANDED

Activities that **cannot be brought into line with global warming targets** and have an alternative, low emissions substitute - e.g. electricity generation from coal

The following is the framework to determine the use of green and transition labels for investments in activities and associated measures.



In the paper, there is also a framework to determine the use of green and transition labels for entity level investments.

Climate Transition Finance Handbook by ICMA

Issued in December 2020, the handbook was published to provide guidance on the practices, actions and disclosures required for climate transition-related debt, whether in the form of:

1. Use of proceeds instruments, defined as those aligned to the Green Bond Principles, Social Bond Principles or Sustainability Bond Guidelines or
2. General corporate purpose instruments aligned to the Sustainability-Linked Bond Principles

The Climate Transition Finance Handbook does not provide definitions or taxonomies of transition projects. Instead, it clarifies the recommended issuer-level disclosures to position the bond issuance to finance the transition credibly.

There are 4 key elements of the recommended disclosures:

1

Issuer's climate transition strategy and governance

The 'transition' labelled debt financing instrument should serve to communicate the implementation of the issuer's corporate strategy to transform the business model in a way which effectively addresses climate-related risks and contributes to alignment with Paris Agreement goals.

2

Business model environmental materiality

Climate transition financing should be used to fund issuer's strategic change over time to its core business activities, i.e. activities which are the main drivers of its current and future environmental impacts. The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer's business model.

3

Climate transition strategy to be science-based including targets and pathways

The planned transition trajectory should be (i) quantitatively measurable, (ii) aligned or referenced to recognized science-based trajectories, (iii) publicly disclosed and (iv) supported by independent assurance.

4

Implementation transparency

Issuers should provide transparency of the underlying investment program, including capital and operational expenditure, to the extent possible.

The relevant disclosures can be included in the issuer's annual report, investor presentation or framework document as long as they are publicly accessible to investors. Issuers are recommended to have independent review, assurance and verification for some of the components above.

The London Stock Exchange Group has recently launched a dedicated transition bond segment, displaying debt instruments from issuers who have corporate strategy or transition framework aligned with Paris Agreement and disclose, manage and address climate-related risks in line with global standards such as the ICMA climate transition finance handbook and CBI transition certification framework. It is the first exchange to launch such a segment. More information can be found on London Stock Exchange website.

Source: "Financing the climate transition: London Stock Exchange extends its sustainable bond market", https://www.londonstockexchange.com/discover/news-and-insights/financing-climate-transition-london-stock-exchange-extends-its-sustainable-bond-market, accessed on 12 April 2021

SUSTAINABLE BOND ISSUANCE GUIDE

SUSTAINABILITY-LINKED BOND ISSUANCE PROCESS

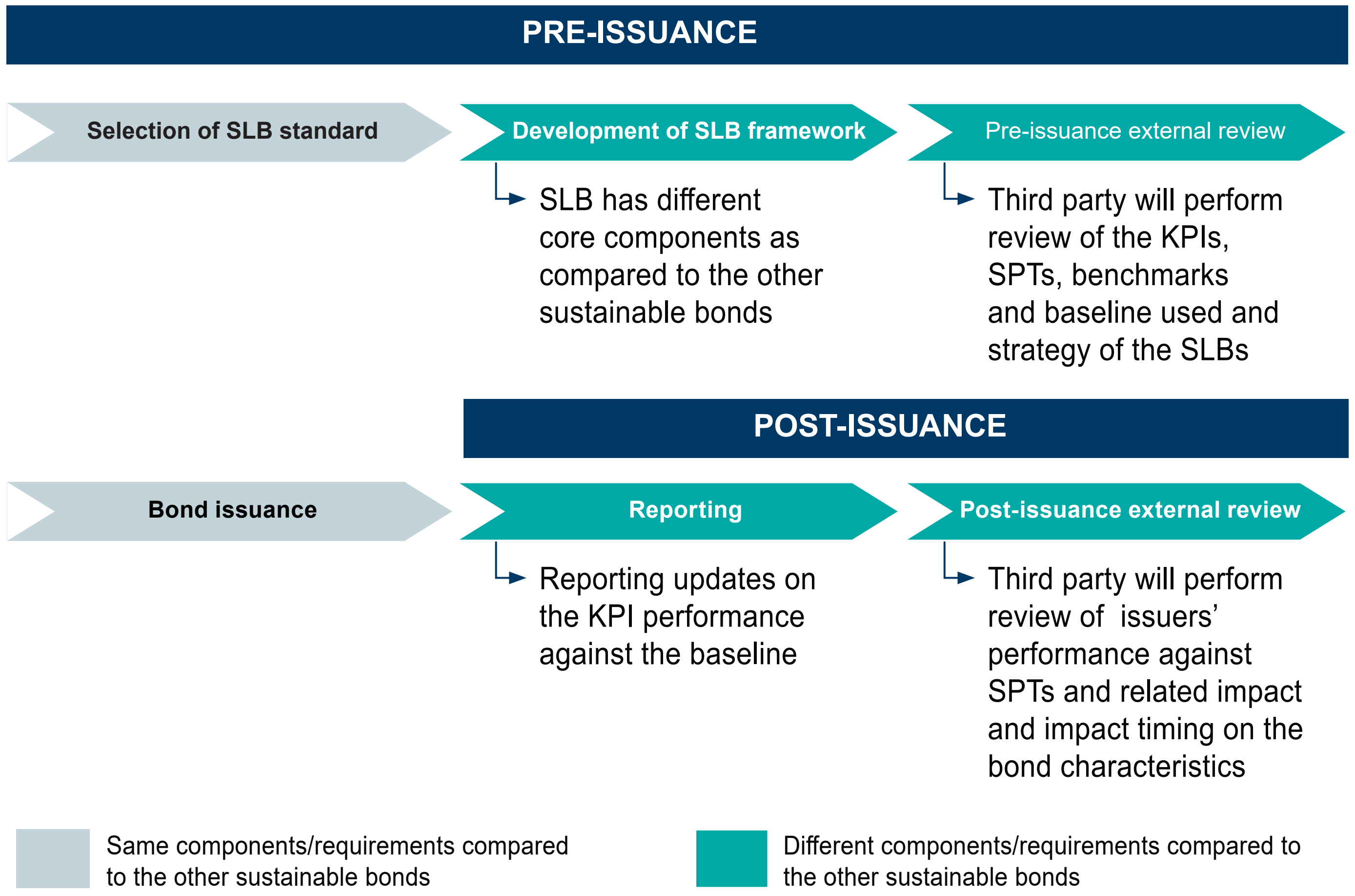
This chapter lays out the components of a sustainability-linked bond framework and presents the standard available for a sustainability-linked bond

Section 7.1 What are sustainability-linked bonds?

Sustainability-linked bonds (SLB) are a forward-looking performance based instrument where the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined sustainability/ ESG objectives. Issuers are thus committing explicitly (including in the bond documentation) to future improvements in sustainability outcomes within a predefined timeline. The outcomes are measured through predefined Key Performance Indicators (KPIs) and assessed against predefined Sustainability Performance Targets (SPTs).

The proceeds from SLBs are used for general purposes and not a determinant in its categorization.

The SLB issuance process is generally similar to that of a standard sustainable bond issuance process. However, some of the components or requirements differ. The process for SLB issuance is as follows.



Section 7.2 Components of a sustainability-linked bond framework

There are five core components of a SLB framework: (i) selection of KPIs, (ii) calibration of SPTs, (iii) bond characteristics, (iv) reporting and (v) verification. The following sections describe each of the components, based on SLBP by ICMA.

Section 7.2.1 Selection of KPIs

As the credibility of a sustainable linked bond is highly dependent on the selection of the KPIs, it is important to avoid proliferation of KPIs which are not credible. The issuers' sustainability performance is measured using sustainability KPIs that can be external or internal.

The KPIs should be:

- Relevant, core and material to the issuers' overall businesses and of high strategic significance to the issuers' current and/or future operations
- Measurable or quantifiable on a consistent methodological basis
- Externally verifiable and
- Able to be benchmarked using external references or definitions to facilitate the assessment of the SPT's level of ambition

Issuers are encouraged to choose KPIs that have already been included in their previous annual reports, sustainability reports or other non-financial reporting disclosures. This enables investors to evaluate historical performance of the selected KPIs. If no KPIs have been disclosed previously, issuers should provide historical externally verified KPI values covering at least the previous 3 years, if possible.

Issuers should:

- Provide clear definition of the KPIs and
- Include the applicable scope or perimeter (e.g. the percentage of the issuer's total emissions to which the target is applicable) and
- Include the calculation methodology (e.g. clear definition of the denominator of intensity-based KPIs, definition of a baseline, science-based or benchmarked against an industry standard)

SLBP recommends that issuers publicly communicate (i) rationale for their KPI selection (i.e. relevance, materiality), (ii) motivation for the SPTs (i.e. ambition level, consistency with overall strategic planning and benchmarking approach), (iii) the potential change of bond financial and/or structural characteristics and the trigger events leading to such a change, (iv) intended post issuance reporting and independent verification and (v) overall representation of the issuers' alignment with the SLBP.

Gender smart sustainability-linked bonds follow the same process for issuance as other sustainability-linked bonds. Issuers can follow any of the two approaches for making sustainability-linked bonds gender smart:

1. **Link to the issuer's gender performance** - The gender performance of the bond can be directly linked to the gender profile of the issuer. This approach would be particularly appealing for issuers who already score high on gender diversity. The issuer's gender performance can be assessed based on gender indicators included in its diversity and gender reporting. The issuer's gender ranking or inclusion in gender indices could also be used as indicators of its progress in gender equality
2. **Include gender related KPIs in the bond** - Issuers with a less impressive gender profile, or with an ambition to further improve it, can include a gender KPI and sustainability performance target (SPT) in their sustainable bond framework, alongside the existing sustainability indicator (e.g. decease GHG emissions). In this case, the issuer would need to meet both SPTs to avoid a rate step up on its gender smart sustainability-linked bond. In order to determine the right KPI and SPT, the corporate sustainability reports and existing gender targets of the issuer can be a good starting point. KPIs chosen should be relevant, core and material to the issuer's overall business, and of high strategic significance to the issuer's operations. In addition, any SPTs associated with the selected KPI should be ambitious and represent a material improvement. The case study of Schneider Electric, which recently issued a SLB that includes gender KPI, can be found in Annex C.

Section 7.2.2 Calibration of SPTs

The SPTs should be ambitious and set in good faith. Issuers should disclose strategic information that may have an impact on the achievement of SPTs.

The SPTs should:

- Represent a material improvement in the respective KPIs and be beyond the business-as-usual trajectory
- Be compared to a benchmark or an external reference, if possible
- Be consistent with the issuers' overall sustainability/ ESG strategy and
- Be determined on a predefined timeline, which is set before or concurrently with the bond issuance

The target setting exercise should be based on a combination of benchmarking approaches:

- Issuers' past performance of the selected KPIs, with a minimum of 3 years, and forward looking guidance on the KPIs, if possible, and
- Issuers' peers, i.e. the SPTs' relative positioning versus their peers or versus current industry or sector standards, and/or
- Scientific reference, i.e. systematic reference to science-based scenarios or absolute levels (e.g. carbon budgets) or to official country/regional/international targets (e.g. Paris Agreement) or other proxies to determine relevant targets across environmental and social themes

Disclosures on target setting should make clear reference to:

- Timelines for the target achievement, including the target observation date(s)/ period(s), the trigger event(s) and the frequency of SPTs
- Verified baseline selected for KPIs improvement and rationales for the baseline used (including date or period), where relevant
- Situations for recalculations or pro-forma adjustments of baselines which will take place, where relevant
- How issuers intend to achieve the SPTs, i.e. highlighting the key levers or type of actions that are expected to drive the performance towards the SPTs and their expected respective contribution, in quantitative terms wherever possible and
- Any other key factors beyond the issuers' direct control that may affect the achievement of the SPT(s)

Issuers are encouraged to position the above information within the context of the issuers' overarching objectives, strategy, policy and/or processes relating to ESG.

SLBP recommends that issuers appoint an external review provider, to confirm alignment of their bond with the five core components of the SLBP. In the pre-issuance review, the external reviewer is encouraged to assess:

- The relevance, robustness and reliability of selected KPIs
- The rationale and level of ambition of the proposed SPTs
- The relevance and reliability of selected benchmarks and baselines and
- Credibility of the strategy outlined to achieve them, based on scenario analysis, where relevant

The steps to set the KPIs and SPTs are outlined below:

KPIs			SPTs	
A. Identify	B. Assess	C. Define	D. Benchmark	E. Time
A1. Identify material (relevant, core and strategic) ESG matters of the organization through conducting a materiality assessment, reviewing sustainability strategy or corporate strategy A2. Identify appropriate indicators that can measure the material matters	B1. Assess that the selected KPIs are • Measurable • Comparable • Externally verifiable • Able to be benchmarked • Publicly disclosed	C1. Clearly define: • Applicable scope • Calculation methodology • Alignment to any external standard	D1. Based on the selected KPIs, set a reasonable and ambitious target by conducing a benchmarking exercise: • Review own performance over time • Review peers and industry performance (average, best practice) • Make reference to international or national standards (e.g. science-based scenarios, nationally determined commitments)	E1. Establish baseline and rationale for baseline E2. Set out possible scenarios for which SPTs would not be achieved in the expected timeframe

Section 7.2.3 Bond characteristics

An SLB's financial and/or structural characteristics can vary depending on whether the selected KPI(s) would achieve (or not) the predefined SPT(s). As such, SLBs need to include the triggering event(s) that impact the financial and/or structural characteristics. The most common impact is coupon variation.

It is recommended that variations of the SLBs' financial and/or structural characteristics should be commensurate and meaningful relative to the issuers' original bond financial characteristics.

KPI(s) definition, SPT(s) including calculation methodologies and the potential variation of SLBs' financial and/or structural characteristics are necessary elements of the bond documentation.

Any fallback mechanisms in the case that SPTs cannot be calculated or observed in a satisfactory manner, should be explained. Issuers may also consider including, where needed, language in the bond documentation to take into consideration potential exceptional events (such as significant change in perimeters through material M&A activities) or extreme events, including drastic changes in the regulatory environment that could substantially impact the calculation of the KPI, the restatement of the SPT, and/or proforma adjustments of baselines or KPI scope.

Section 7.2.4 Reporting

Issuers should publish, keep readily available and easily accessible:

- Up-to-date information on the performance of the selected KPIs, including baselines where relevant
- A verification assurance report relative to the SPT outlining the performance against the SPTs and the related impact, and timing of such impact on the bond's financial and/or structural characteristics and
- Any information that enables investors to monitor the level of ambition of the SPTs (e.g. any update in the issuers' sustainability strategy or any information relevant to the analysis of the KPIs and SPTs)

The report should be published regularly, at least annually and in any case for any date/period relevant for assessing the SPT performance leading to a potential adjustment of the SLB's financial and/or structural characteristics.

Section 7.2.5 Verification

Issuers should engage an independent and external reviewer, such as an auditor or environmental consultant, at least once a year and in any case for any date/period relevant for assessing the SPT performance leading to a potential adjustment of the SLB financial and/or structural characteristics, to assure their performance level against each SPTs for their respective KPIs. The verification of performance against SPTs should be conducted until after the last SPT trigger event of the bond has been reachved. The verification report should be made publicly available.

In summary, the following is the checklist of recommended and required pre-issuance disclosures by SLBP.

Item	Description	Location	Recommended or Necessary
General	• Rationale for issuing SLB and consistency with issuers' overall sustainability and business strategy • Alignment with SLBP's core components • External review types, publication dates, reviewer name	Pre-issuance documents (framework, investor presentation, external review, website)	Recommended
Selection of KPIs	• Description and definition of KPI • Rationale behind KPI selection (i.e. relevance with issuer's strategy, materiality) • Historical externally verified KPIs covering at least previous 3 years, where feasible • Verified baseline for KPI improvement and rationale for baseline used (if relevant)	Pre-issuance documents (framework, investor presentation, external review, website)	Recommended
Calibration of SPTs	Same information as the Selection of KPIs with the following additional information: • Description and definition of SPTs • Motivation for the outlined SPTs (i.e. ambition level, benchmarking approaches and consistency with overall strategic planning) • Timelines for target achievement, including the target observation date(s)/ period(s), the trigger event(s) and the frequency of SPTs • Strategic information that would impact SPTs achievement • Science-based, benchmarked against an industry standard (where feasible) • Mean for achieving the targets, where possible and taking competition and confidentiality considerations into account • Key other factors beyond the issuers' direct control that may affect the achievement of the target(s) • Key factors beyond issuer's direct control which may affect the achievement of the targets	Pre-issuance documents (framework, investor presentation, external review, website)	Recommended

Item	Description	Location	Recommended or Necessary
Bond characteristics	• Definition and calculation methodologies of KPIs and SPTs • Detailed description of potential variation of the SLB financial and/or structural characteristics of the bond • Explanation of back-up mechanisms in case the SPTs cannot be calculated or observed or not in a satisfactory manner (if applicable) • Language to take into consideration potential extreme events that could substantially impact the calculation of the KPI, the SPT restatement and/or pro-forma adjustment of baselines or KPI scope (if applicable)	Bond document (e.g. by means of prospectus, prospectus supplement, offering circular, offering memorandum, etc.)	Necessary
Reporting commitments	• Location and frequency of reporting • Intended scope and granularity of reporting • Commitments and disclosure of post-issuance external review		
Second party opinion	• Publication of any pre-issuance external review, such as a second party opinion, or if relevant a verification of baselines	External review document	Recommended

The following is the checklist of recommended and required post-issuance disclosures by SLBP.

Item	Description	Location	Recommended or Necessary
General	• Report and ex-post external review publication dates • Identification of bond: International Securities Identification Number (ISIN), amount, currency, maturity and relative KPI(s) and SPT(s) • Scope of reporting (bond-by-bond, bond program) • Adherence to specific standard or regulations	Post-issuance documents (annual report, sustainability report, external reviews, website,etc.)	Recommended
Reporting	Regular and easily accessible disclosure, at least annually, and in any case for any [date/ period] relevant for assessing SPT performance leading to a potential adjustment of SLB financial and/or structural characteristic(s) of the bond: • Up-to-date information on the performance of the selected KPIs, including baselines where relevant and • Relevant information that helps investors to monitor the level of ambition of the SPTs (e.g. sustainable strategy, related KPI or ESG governance) If feasible and possible: • Qualitative or quantitative explanation of the contribution of the main factors, including M&A activities, behind the evolution of the performance/KPI on an annual basis • Illustration of the positive sustainability impact of the performance improvement • Any re-assessment of KPIs and SPT and/ or pro-forma adjustment of baselines or KPI scope	Post-issuance documents (annual report, sustainability report, external reviews, website,etc.)	Recommended
Verification	• Verification/assurance report: Reporting relating to the verified SPTs should be made publicly available. It should outline the performance against the SPT and the related impact and timing of such impact, on the bond financial and/or structural characteristics		Necessary

Case studies of sustainability-linked bonds that have been issued can be found in Annex C.

Section 7.3 Sustainability-linked bond standards

Currently, there is no universally agreed standard for SLB issuance. ICMA has recently issued a Sustainability-linked Bond Principles (SLBP) to provide guidance to issuers in drafting their framework and SLB issuance. The SLBP is used as the basis for this section of the report.

GENDER MAINSTREAMING IN SUSTAINABLE BONDS

This chapter describes the opportunity and business case for gender mainstreaming in a sustainable bond and presents a number of possible gender indicators

Gender inequality is a pressing issue with significant impact on human development, labor markets, and productivity. It is increasingly in the spotlight due to a growing number of corporate disclosures, intensifying regulatory pressure and better awareness of the social, economic and financial benefits of gender diversity. At the same time, dedicated gender focused financing has been limited to date. Gender lens investing has only USD 7.7 billion assets under management globally, which is a fraction of the global sustainable investment universe of USD 30.7 trillion.In order to scale up gender smart financing, gender considerations should be mainstreamed across all newly issued sustainable finance instruments.

Section 8.1.1 The opportunity

This represents a significant opportunity for advancing gender equality. Total new issuance for sustainable debt alone was worth USD 465 billion globally in 2019, which is more than 60 times of the size of all outstanding gender lens investment today.

Gender mainstreaming can be described as the process of assessing the implications for women and men of any planned action. In the context of sustainable bonds, this means that the concerns of both women and men are an integral part of the entire investment process. This gender lens can be added to all types of sustainable bonds.

Principles of gender mainstreaming

- Adequate accountability mechanisms for monitoring progress need to be established
- Gender differences and disparities should be diagnosed across all areas of activity
- Assumptions that issues are neutral from a gender-equality perspective should not be made
- Clear support of senior management and allocation of adequate resources for mainstreaming, including additional financial and human resources if necessary, are important for implementation
- Gender mainstreaming requires that efforts be made to broaden women's equitable participation at all levels of decision-making
- Mainstreaming does not replace the need for targeted, women-specific programs

Issuers are encouraged to integrate gender considerations when issuing any type of sustainable bond. For use-of-proceeds bonds, this would mean applying a gender lens in the selection of eligible projects. In the case of general purpose and sustainability-linked bonds, the issuer should meet a predetermined level of gender performance. Alternatively, a gender KPI could accompany the main sustainability KPIs of sustainability-linked bonds.

Source: "Definition of Gender Mainstreaming", International Labour Organization, https://www.ilo.org/public/english/bureau/gender/newsite2002/about/defin.htm, accessed on 12 April 2021; "Gender Lens investing", SPF, July 2020; "Global sustainable investment review", Global sustainable investment alliance, 2018; "Sustainable Debt Sees Record Issuance At $465Bn in 2019, Up 78% From 2018", BNEF, January 2020; "Gender mainstreaming", Women 2000, September 1997

Section 8.1.2 The business case

Achieving gender equality is essential for a prosperous and sustainable world as it affects all aspects of sustainable development. The most pressing environmental and social challenges of our time impact women disproportionately. For example, women are particularly vulnerable to climate change as it can worsen structural gender-based inequalities and further increase existing gender disparities. The current COVID-19 pandemic and its economic fallout are having a regressive effect on gender equality.

- Women's jobs are 1.8 times more vulnerable than men's jobs
- Women make up 39 percent of global employment but account for 54 percent of overall job losses - mostly due to the increased burden of unpaid care disproportionately carried by women

These interlinkages between gender and other sustainability objectives underline the need for issuers of sustainable bonds to take into account gender considerations irrespective of the thematic focus of the instrument.

- The business case for gender equality has never been stronger. Addressing gender equality can deliver substantial commercial benefits. It helps businesses anticipate and meet customer and staff needs, attract more socially conscious customers and recruit the best talent from an increasingly values-driven workforce. Companies with a gender-diverse workforce are likely to outperform their peers, while the cost of inaction is getting higher. The correlation between gender and financial performance is especially strong in the case of executive teams and boards. Based on recent research covering more than 1000 companies from 15 countries, companies with gender diverse boards are 28% more likely to outperform their peers, while gender diversity in executive teams increases the chance of outperformance by 25%. There is also a signification difference in financial performance between leaders and laggards. Companies with executive teams with more than 30% female members are 48% more likely to outperform companies with only 10% or less women in their executive teams
- Other research shows that gender diversity leads to innovation, improves productivity, and enables companies to make better strategic decisions. Through a more gender-balanced workforce, companies have access to a wider range of perspectives, skills and social networks - all of which increase their creative capacities and knowledge leading to better corporate decision making.
- Companies with good gender performance are also better placed to attract investors who have a sustainability mandate. The integration of environmental, social and governance (ESG) criteria in investment decisions is expected to reach USD 160 trillion worth of assets by 2036. This implies that the entire asset management industry will follow a sustainable investment strategy in 16 years. Gender is expected to feature as one of the core ESG criteria in portfolios, alongside the integration of climate considerations and the exclusion of "sin" sectors.
- A high gender score can also signal to investors that the company is taking a progressive stance towards gender inequality and manages well its reputation risk. Both aspects benefit the company's long-term growth and profitability and therefore its valuation. Indeed, several studies demonstrate that companies with good gender performance have higher market valuations compared to their peers.

This demonstrates that gender equality is not only important from a societal and development perspective but can also result in better corporate performance. Sustainable bond issuers are, therefore, encouraged to integrate gender considerations when designing new sustainable instruments.

Gender mainstreaming in non-gender focused sustainable debt is still at an early stage, but is expected to gain traction as the positive financial impact of gender diversity becomes more understood. An example is the proposal from 32 investors with GBP 10 trillion Assets Under Management (AUM), for the UK to issue a sovereign green bond to finance climate action, while addressing specific social objectives. These objectives could include creating high quality employment and addressing income or potentially gender inequality.

Source: "Diversity wins", McKinsey & Company, May 2020; "An Institutional approach to gender diversity and firm performance", HBS; "Big data shakes up ESG investing", Deutsche Bank Research, October 2018

Section 8.1.3 Gender indicators

Issuers can consider the following options when selecting gender indicators:

1. Use one set of gender indicators applicable across all project categories
2. Use a separate set of gender indicators for each project category

Issuers are encouraged to choose the first option unless the diverse nature of project categories would prevent the use of a common set of gender indicators. For example, the issuer not only wants to use the bond proceeds to invest in companies in the renewable energy sector, but at the same time, it also wants to have the possibility to invest directly into onshore wind projects using the same sustainable bond framework. While the "percent of female ownership" might be a relevant gender indicator when investing into a company, it would probably be less suitable for infrastructure projects.

Furthermore, the same set of gender indicators can be used irrespective of the proceeds being allocated to finance new projects or refinance existing projects.

The table below provides examples for gender indicators and their corresponding eligibility criteria. They are based on the 2X Challenge, which is a major initiative of G7 development finance institutions to mobilize resources to advance gender equality and women's economic empowerment.

2X Challenge gender indicator categories	Gender indicators	Eligibility criteria
Entrepreneurship	1. Percent of female ownership 2. Percent of company founder(s) who are female	1. 51% or more 2. 51% or more
Leadership	1. Percent of senior management who are female 2. Percent of Board who are female	1. At least 20% for infrastructure, power, telecoms; at least 25% for Financial Services, Manufacturing, Agribusiness and Food, Professional Services, Consumer Services; at least 30% for healthcare, education 2. At least 30% or the national legal minimum, whichever is higher
Employment	1. Percent of full-time employees who are female 2. Initiative in place to specifically advance women in the workforce (Y/N)	1. At least 30% for infrastructure, power, telecoms; at least 40% for Financial Services, Heavy manufacturing, Agribusiness and Food, Professional Services; at least 50% for Healthcare, Education, Consumer services, Light manufacturing 2. Have an initiative in place to advance women in the workforce
Consumption	1. Product or service specifically or disproportionately benefits women (Y/N) 2. Percent of customers who are female	3. Offer at least one product or service that enable women to increase their safety or security; access to finance or to markets; access to health, access to education and time savings 4. 51% or more
Indirect Investments - Investments through financial intermediaries	1. Share of financial intermediary's portfolio that meets at least one of the criteria above 2. Share of Fund's portfolio that meets at least one of the criteria above	See above

Gender indicators should be selected based on their relevance for the expected use of proceeds. Also, the issuer should consider their own capacities to measure and access gender data. This is particularly important for investment teams to assess project eligibility and make investment decisions in a timely manner. The table below provides examples of existing gender smart bonds and the type of gender indicators they used. As the 'use of proceeds' column demonstrates, the primary focus of these bonds is gender diversity. Despite this, they tend to have only 2-3 gender criteria each. This provides an indication of the level of gender ambition that non-gender focused sustainable bond issuers can aim for.

Gender smart bonds	Use of proceeds	Eligibility criteria for gender indicators
IIX Women's Livelihood Bond	Make loans to impact enterprises (IE) and microfinance institutions that are part of the sustainable livelihoods spectrum for women (i.e. access to capital, markets, essential goods and services) in South East Asia.	• Either "owned or run by women" or "low-income marginalized women as main target beneficiaries" • Low-income or marginalized women as main target customers
QBE Insurance Group's Gender Equality bonds	Finance or refinance investments in qualifying bonds rated based on gender equality in leadership criteria. Funds raised are invested in bonds issued by companies that have policies of supporting workplace gender equality.	• The bond has been issued by a company that is a signatory to the United Nations Women's Empowerment Principles • The bond has been issued by a Company recognised in the current Equileap Gender Equality Global Report and Ranking • Reporting on the percentage of women on the boards of companies that meet the eligibility criteria • Exclude investments in companies that are involved or finance a list of projects or activities (e.g. production of tobacco, weapons, etc.)

Gender smart bonds	Use of proceeds	Eligibility criteria for gender indicators
Canadian Imperial Bank of Commerce (CIBC) Women in Leadership Bond	Proceeds are allocated towards committed loans that CIBC Corporate Banking has made to a corporation or its parent corporation that meet their gender eligibility criteria.	• Minimum of 30% of board positions are held by women • Minimum of 30% of executive positions are held by women • Signatory of the Catalyst Accord 2022 (it calls on Canadian boards and CEOs to pledge to accelerate the advancement of women in business) • Minimum of one woman on the board and one woman in an executive position • Exclude corporations that whose current principal industry or primary activity include alcohol, tobacco, gambling, etc
National Australia Bank's Gender Equality Social Bond	Make loans to organizations that champion women and equality in a positive way.	• Organizations that the Workplace Gender Equality Agency cites as Employers of Choice for Gender Equality
Bank of Ayudhya's Women Entrepreneurs Bonds	Make loans to women-led small and medium-sized enterprises in Thailand.	• Generating employment through microfinance for women and financing for women-owned SMEs • Socio-economic advancement and empowerment through providing financing for low-income and disadvantaged female groups

The next step is to define the eligibility criteria for each gender indicator in the sustainable bond framework. The previous table lists the thresholds that have been used in the 2X Challenge. Thresholds can also be determined based on industry benchmarks, if available, or international guidelines and recommendations. Thresholds need to be specifically tailored for each sector, so they stay meaningful, ambitious, but at the same time achievable. For example, participation of women in the workforce is generally less of a problem in education than in financial services. Therefore, the thresholds set for relevant gender indicators should also reflect these differences. Finally, the ambition level of the issuer also plays an important role in determining the eligibility criteria for gender indicators.

Case studies of gender bonds that have been issued can be found in Annex C.

Annex E provides examples of gender indices and rankings.

Source: "Final Blueprint Paper", IIX Foundation, February 2019; "2019 Gender Equality Bond Progress Report", QBE, 2019; "Canadian Imperial Bank of Commerce Women in Leadership", CIBC, 2018; "NAB announces first social bond to promote workplace gender equality", NAB, March 2017

Section 8.1.3.1 Infrastructure projects

All the previous examples presented provide financing, in one way or the other, into businesses. However, infrastructure projects are often the recipients of sustainable bond proceeds. While for some infrastructure projects the same set of gender indicators could still be used, for others they might be less suitable or relevant. In the latter case, the issuers can consider the following options:

1. Assess the gender performance of the companies involved in the infrastructure project. Under this approach, the issuer would set the eligibility criteria based on the gender performance of the companies involved in the construction, operation and maintenance of the infrastructure project. In this case, the same set of gender indicators could be used as discussed earlier. This could mean setting a universal threshold that applies to all companies involved in the project or setting different thresholds depending on the size, type, or role of the company in the project. An example for the former would be: only companies with at least 30% women in the workforce could have a major role in the project.
2. Describe the process that ensures that the infrastructure project is gender positive. Under the second approach, the eligibility criteria in the sustainable bond framework would only allow the financing of infrastructure projects that have the necessary policies and procedures in place to integrate gender considerations across the project cycle. For example, the infrastructure project must demonstrate that the UNOPS / UN Women guidance on "Integrating Gender into Infrastructure Development in Asia and the Pacific" is implemented throughout the project. The table below provides examples for gender considerations that need to be addressed in the project design and preparation phase.

UNOPS Gender Mainstreaming in Project Design and Preparation
1. The project's gender analysis has been conducted in addition to an environmental and social impact assessment and resettlement action plan when necessary, and findings are incorporated into project design and project documents.
2. Gender and diversity have been integrated in the situation analysis, problem tree analysis, and theory of change exercises, ensuring participation of men and women.
3. Women's and men's practical and strategic gender needs and changes in access and control over resources have been analyzed.
4. The gendered division of labor and its changes have been analyzed. Women's and men's current work within and outside homes is analyzed in the project area, keeping in mind how the project could affect this.
5. If there are any foreseen or unintended negative impacts on men, women, boys, or girls, or relationships among them, the project scope is modified to limit these disadvantages, especially for women and girls.

UNOPS Gender Mainstreaming in Project Design and Preparation
6. Gender-disaggregated statistics are collected before the project begins to analyze the gendered dimensions of the sector (e.g. labor force participation and employment data, time use, access to training and skills development, access to financial services, legal framework including inheritance and property laws, community leadership).
7. Sex-disaggregated data, statistics and indicators have been used in the project proposal.
8. Male and female community members, leaders, and future users of the infrastructure are consulted and involved as decision makers in the design and planning stage. Their views are incorporated into the gender analysis and project design.

Section 8.1.3.2 "Do No Harm" – Gender neutral investing

There are issuers who either have a low level of gender ambition or, due to the nature of their business, cannot include in their sustainable bond framework any of the gender indicators discussed earlier. In this case, they should at least ensure that the use of proceeds from the sustainable bond are not used in any activity or investment that would cause harm to women or worsen gender diversity. Therefore, the sustainable bond framework should require potential investments to demonstrate that they have the necessary policies and procedures in place to comply with this requirement.

All the information above provides guidance on how gender considerations could be mainstreamed in the "Use of Proceeds" section of the sustainable bond framework. The process for project evaluation and selection, management of proceeds, and reporting are the same for gender smart sustainable bonds as for traditional sustainable bonds.

Source: "Guides on integrating gender into infrastructure development in Asia and the Pacific", UN Women, 2019

ANNEX A

FREQUENTLY ASKED QUESTIONS (FAQS)

Note that the following responses do not constitute legal advice and are not official comments from the SEC. No legal penalties can be imposed if a certain action does not comply with the elements described in these FAQs.

1 How is a sustainable bond different as compared to a traditional bond?

In terms of the deal structure, a sustainable bond is similar or the same as a traditional bond. However, there are different requirements for reporting, auditing and proceed allocations for a sustainable bond.

2 What is the additional cost of issuing a sustainable bond as compared to a traditional bond?

The additional costs of a sustainable bond issuance arise from the need for additional reporting, auditing and management of proceeds. These include:

- Internal cost of building capacity and expertise on sustainable bond requirements
- Cost of developing a sustainable bond framework that meets international standards
- Cost to set up the internal process to ensure that the proceeds are allocated to sustainable projects
- External reviewer cost, to verify and/or certify that the issuer's sustainable bond framework meets the selected international standard
- Cost for reporting the allocation of proceeds and impacts of the sustainable bond

3 What are the benefits of issuing a sustainable bond?

There are various benefits to issuers through issuing a sustainable bond. These include:

- **Strong investors' demand** which can lead to oversubscription and potential to increase issuance size. In Thailand, the green bond issued by BTS Group in May 2019 was 8 times oversubscribed and reached a wider set of investors than BTS had not seen previously
- **Improved branding and reputation**. A sustainable bond gives issuers the chance to brand themselves as a forward thinking, innovative and sustainability conscious organization
- **Powerful tool to address climate risks.** A sustainable bond can be an effective tool to help companies manage their climate risks. By definition, the proceeds for sustainable bonds are used for environmental, social and governance (ESG) projects that bring about sustainable development outcomes, including mitigating and adapting to the adverse effects of climate change
- **Positive response from the stock market.** In a study conducted by Boston University, it was found that issuers' stock prices rose around 0.67% during the announcement of a green bond offering, indicating investors' expectations that the bonds would contribute to shareholder value. The study reviewed 217 corporate green bonds issued by public companies globally from 1 January 2013 to 31 December 2017

4 What are the benefits of investing in a sustainable bond?

There are various benefits to investors from investing in a sustainable bond. These include:

- **Diversification and hedging tool.** Investors can use a sustainable bond as hedging tools against climate policy risks in a portfolio of emissions-intensive assets. It provides investors with a means of accessing sustainable investments in the fixed income market in a familiar, low-risk vehicle
- **Improved branding and reputation.** Investing in a sustainable bond enables investors to improve their companies' reputation and branding. Investors can prove to the society that in addition to profits, they also care about the environment and encourage sustainable growth
- **Greater transparency and assurance.** There is greater transparency as to the use of proceeds and reporting requirements in a sustainable bond as compared to a conventional bond. This provides investors with significant information advantage. Pre- and post-issuance assurance also provide another layer of confidence to investors that the bonds deliver their intended impacts

5 How long does it take to issue a sustainable bond?

The following is an estimate of the time taken to issue a sustainable bond:

- Identification of use of proceeds, selection of bond standard and development of framework – 6 weeks
- Pre-issuance external review – 5 weeks
- Bond issuance – depending on issuer's timeline

Note that the above is just an estimate and the timeline is dependent on issuer's internal capability and system in place.

Source: "Green Bond Pricing", Green Finance for Latin America and the Caribbean, https://www.greenfinancelac.org/resources/news/green-bond-pricing/, accessed on 2 November 2020; " Why Green Bonds", Green Bonds, http://www.gogreenbonds.org/why-green-bonds/, accessed on 2 November 2020; "Green Bonds Benefit Companies, Investors, and the Planet", Harvard Business Review, Green Bonds Benefit Companies, Investors, and the Planet (hbr.org), accessed on 12 April 2021

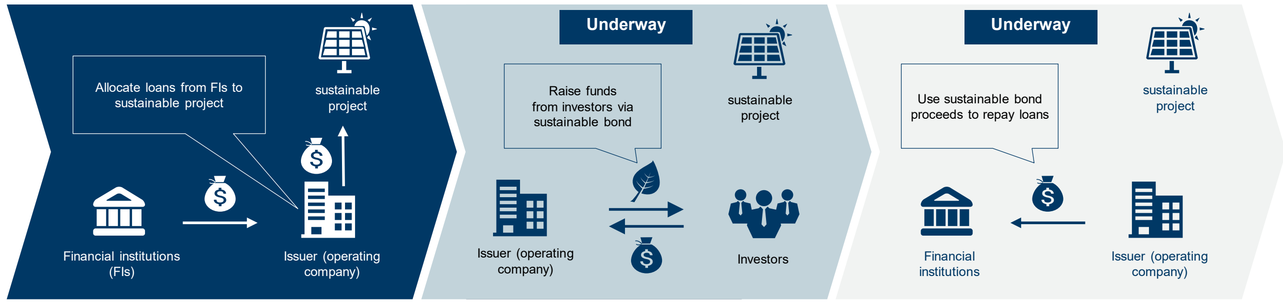
6 Can sustainable bonds be used for refinancing?

In addition to new sustainable projects, sustainable bond proceeds can be used to refinance existing sustainable projects. In the case of refinancing of existing sustainable projects, it is recommended that issuers provide information to investors regarding: (i) an estimate of the amount (or share) of proceeds allocated to financing vs. re-financing, (ii) which sustainable projects or categories may be refinanced and (iii) the expected look-back period for refinanced sustainable projects, where relevant. In the case where the share of proceeds allocated to new sustainable projects exceeds that of the refinancing portion, providing an estimate (or share) of the proceeds allocated to a new project may enhance the reputation of the sustainable bond.

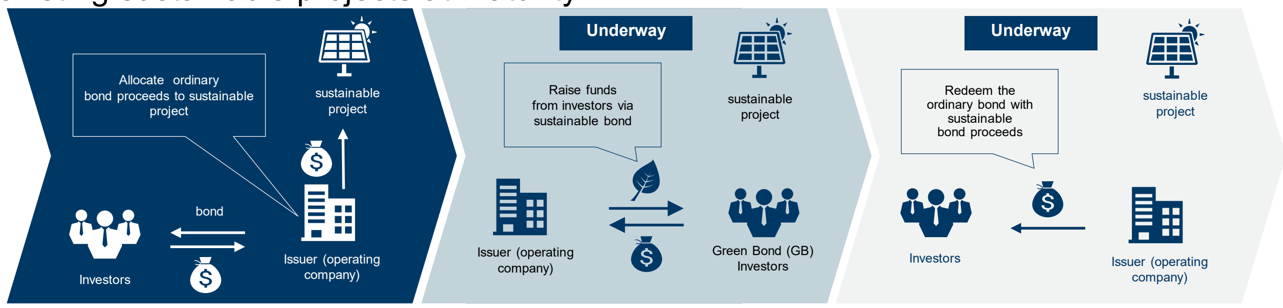
7 What are the examples of refinancing?

Examples of refinancing:

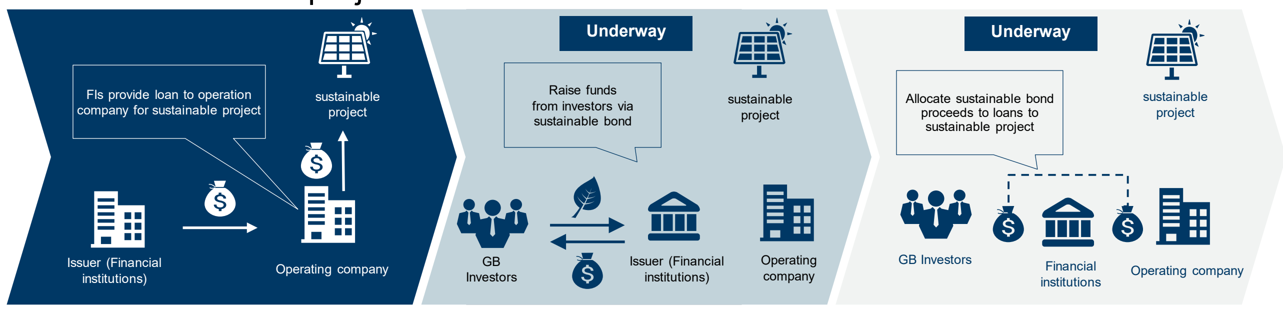
a. Sustainable bond proceeds are allocated to refinance loans related to sustainable projects



b.Sustainable bond proceeds are used to redeem a bond that has been issued to finance existing sustainable projects at maturity



c.Financial institutions allocate sustainable bond proceeds as a resource for existing loans linked to sustainable projects



Source: "Green Bond Principles", ICMA, June 2018; "Green Bond Guidelines", Japan Ministry of Environment, 2017

8 According to international best practices, what is the expected look-back period for green bonds?

While GBP, ASEAN GBS and CBI do not specify the expected look-back period, the EU green bond standard mentions a maximum of 3 years for look-back period.

9 What are the benefits of engaging external reviewers?

There are a number of benefits to external reviews, including:

- Confirmation of the environmental and/or social credentials of the projects, plus alignment with international standard(s)
- Greater transparency of the process, facilitating investors' access to relevant and standardized information
- Lowering the cost of environmental and/or social due diligence by investors, which requires time and resources
- Attracting non-specialized investors with no or little experience in environmental and/or social analysis of projects
- Enabling the bond to be included in sustainable bond indices or being eligible for listing under the sustainable bond segment in stock exchanges. A number of stock exchanges have announced or established a segment dedicated to sustainable bonds such as the stock exchanges of London, Shanghai, Luxembourg, Mexico, etc.

10 What is the difference between assurance and second party opinion?

Through a formalized assurance statement, assurance provides confirmation that the bond is aligned with selected standard. Second party opinion provides an opinion on the bond framework against a standard, the bond's label and issuer's sustainability narrative. Assurance is usually undertaken by audit or consulting firms while second party opinion is usually undertaken by ESG service providers and environmental consultants. Under the CBI standard, issuers are required to obtain a pre- and post- issuance assurance report to be certified under the Climate Bond Standard.

11 Does a green bond enjoy a lower yield?

There is no guarantee that a green bond enjoys a lower yield. According to a study conducted by CBI, some green bonds are priced below while some are priced on or above their own yield curve. The difference in yields is likely due to the differences in time periods, ratings, currencies and issuers of the bonds[1].

In September 2020, Germany issued its first green bond, priced at 1 basis point premium to investors, as compared to conventional bonds[2].

Source: [1]"Survey of Green Bond Pricing and Investment Performance", Liaw, K. T. 2020,

[2]"Germany raises 6.5 billion euros from first-ever green bond", Reuters, Germany raises 6.5 billion euros from first-ever green bond | Reuters, accessed on 23 February 2021

12 Which green bond standards should I choose?

There are 3 widely adopted standards in ASEAN:

1. Green Bond Principles (GBP) by ICMA. This provides broad definition of eligible green projects
2. ASEAN Green Bond Standards (ASEAN GBS) by the ASEAN Capital Markets Forum (ACMF). This standard was developed with reference to the GBP. The requirements are the same as GBP, with the following additions: It specifically excludes fossil fuel power generation from its list of eligible sectors and mandates annual reporting until the bond is fully allocated
3. Climate Bonds Standard by the Climate Bonds Initiative (CBI). This provides detailed requirements for each of the eligible green projects. The bond has to be assured by a CBI approved verifier.

All of the above standards are voluntary. Issuers can weigh the costs and benefits of adopting any of the above standards. Higher costs will be incurred to adopt the standards as issuers need to ensure their compliance to all of the requirements. However, it may provide greater assurance to investors that the activities the bond is financing are green. Issuers should take into account investors' perspectives when deciding which standard to use.

13 If the issuer has fully allocated the proceeds in the first year, does it still have to provide annual reporting to maintain the CBI certification?

Yes, to maintain the CBI certification, the issuer is required to provide annual reporting while the bond remains outstanding.

14 In the case where an entity plans to acquire a renewable energy company, could such entity issue a green bond to finance the Merger & Acquisition (M&A) activity?

Yes, the issuer can issue a green bond to acquire green companies (e.g. renewable energy company). An example of this is a green bond issued by ENGIE. In its green bond framework, ENGIE included acquisitions of companies substantially active in any of the eligible green project categories as one of its eligible investments for the use of green bond proceeds. In 2019, ENGIE issued a green bond which was partly used to acquire Vol-V Biomass (which operates the entire biomethane value chain) and Powerlines (involved in electrification systems for mass transit system).

15 In the case where a construction company plans to undertake a construction project for a local hospital, could such company use the funds raised from social bonds?

Yes, as long as the bond is used to finance the construction of a hospital that addresses or mitigates a specific social issue and/or seeks to achieve positive social outcomes especially, but not exclusively, for a target population. The issuer has to clearly define the purpose of the hospital and target population. Examples of target population under SBP include people living below poverty line, excluded or marginalized populations, people with disabilities, migrants, undereducated, underserved, unemployed, women, aging populations and other vulnerable groups.

16 Under the GBP, can an issuer issue a green bond to fund revenue-generating forest activities such as plantations and harvests? Is the issuer required to comply with other sustainable forestry standards?

As long as the project provides clear environmental benefits, in this case - environmentally sustainable forestry or agriculture - the issuer is eligible to issue a green bond under the GBP. Under the GBP, there is no requirement for issuer to comply with other sustainable forestry standards.

17 What is the difference between green and transition bonds?

The following table outlines the differences between green and transition bonds.

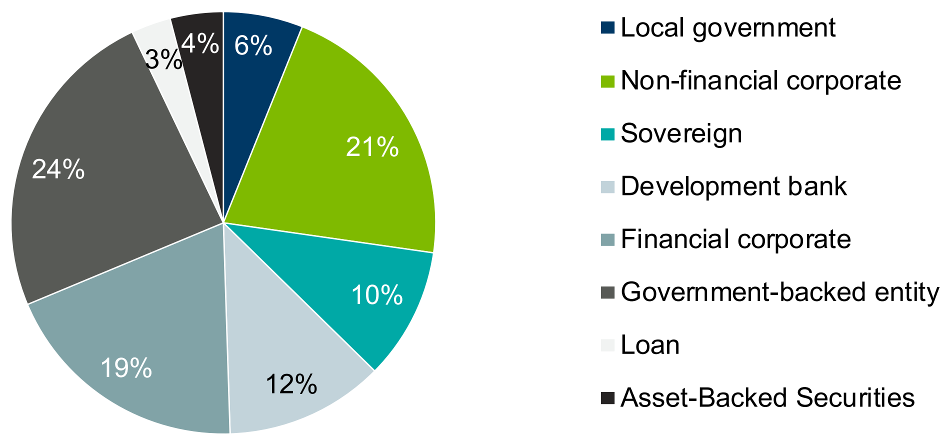
	Green bonds	Transition bonds
Investor demand Extent of demand within the green finance market	• Lack of adequate supply of green bonds to meet investor demand • Green bonds had a larger book cover than conventional bonds in 2019	• Market not yet well established but expect-ed to fill the void in the green bond market created from the current lack of suitable assets impeding the latter's growth
Pricing Comparison of basis points with conventional bonds	• In comparison to conventional bonds, green bonds exhibited greater spread compressions in 2019	• Limited data due to lack of such bonds issued today
Transparency and Clarity Extent of disclosures required and level of clarity in components of the green issuance process	• Green Bond Principles framework is significantly more detailed and acts as a harmonized framework for all green bonds issued globally • Various additional resources (e.g. provisions for green bond impact reporting) are provided on the ICMA website	• New guidelines are available from ICMA and CBI. However, these guidelines do not provide a formal framework for transition bonds. The ICMA handbook suggests us-ing the existing green, social, sustainability or sustainability-linked bonds frameworks as the basis for issuing transition bonds • Issuers are directed to refer to other resources in order to formulate their own transition bond framework
Resourcing Extent of additional cost and skillsets needed to issue and manage the bond	• Few additional skillsets required • Low cost and easy to adopt for first-time issuers	• Harder to adopt for first-time issuers due to lack of an available harmonized framework • More experience in the green finance mar-ket may be required
Advantages	• More established as a reliable and regulated instrument in green finance • Sophisticated investor base with the knowledge and capital needed to address climate change issues through investment decisions • Typically issued for 8 to 10 years and align with long-term project maturities, whereas transition bonds are of shorter duration to maintain the emphasis on transitioning quickly	• Issuers required to articulate what climate transition means in the context of their current business model and make a commitment to align their business to meeting the Paris Agreement goals • Investor diversification for sectors that are ineligible for classic green finance instruments but are key to addressing climate change • "Brown to green" may have a higher positive environmental impact than financing companies that are by definition already green

ANNEX B

GLOBAL SUSTAINABLE BONDS DATA

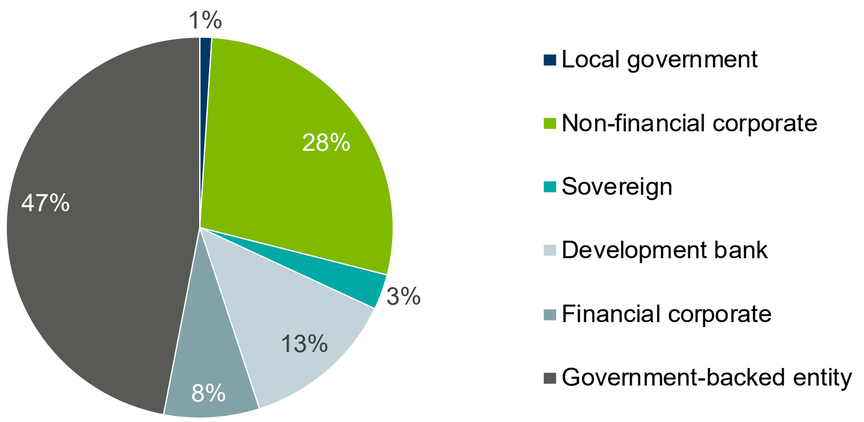
Issuers type

Green bonds (2020)*

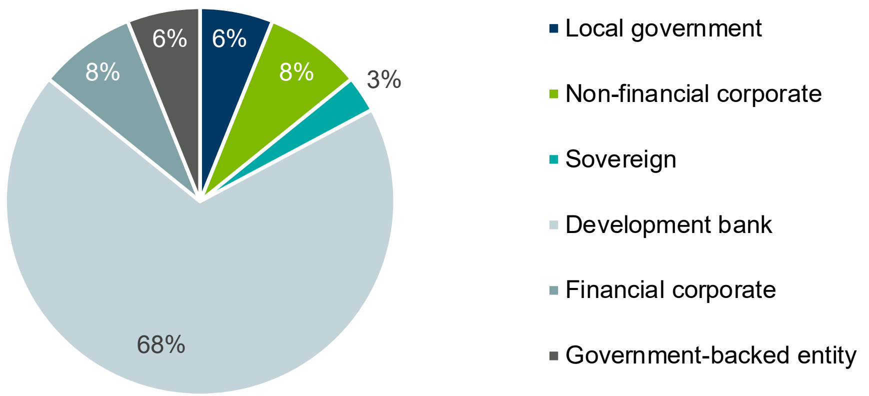


*Estimated

Social bonds (2020)



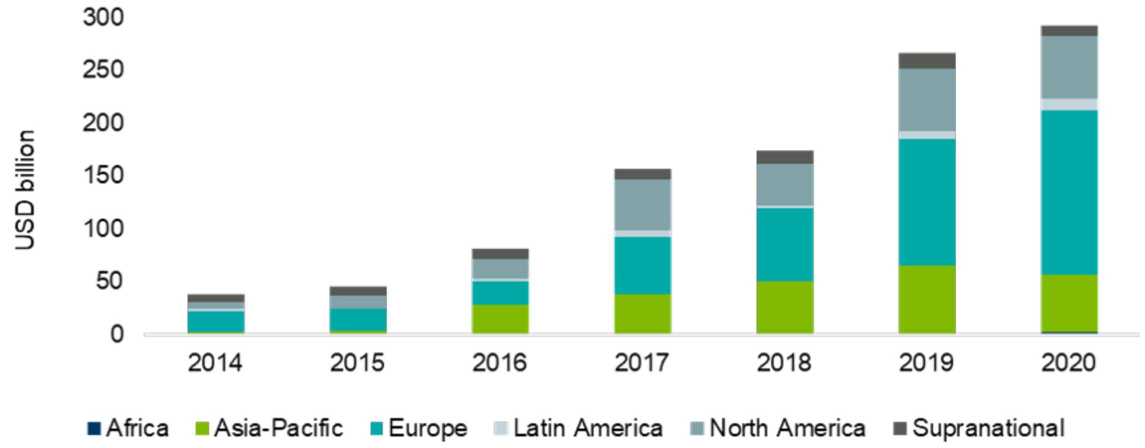
Sustainability bonds (2020)



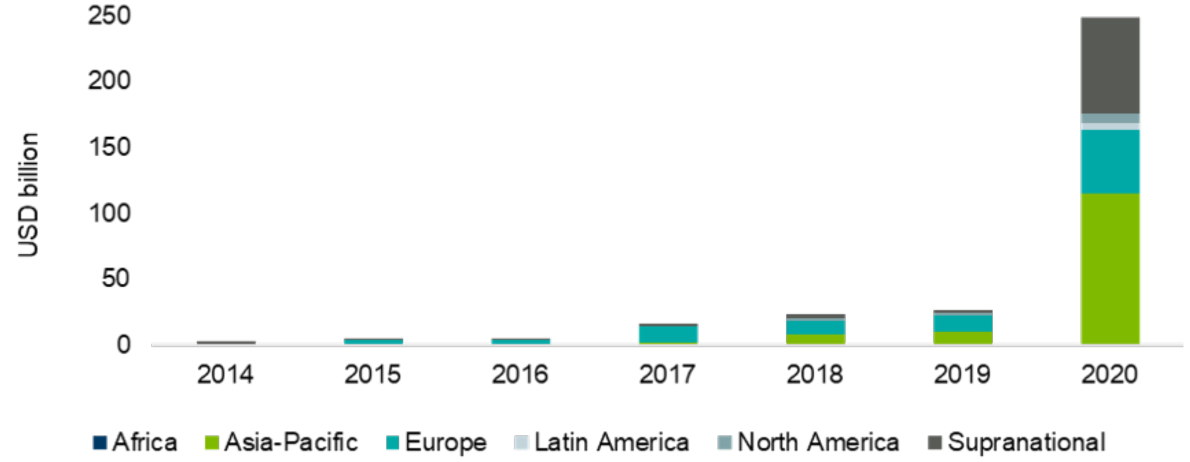
Source: "Sustainable Debt Global State of the Market 2020", Climate Bonds Initiative, April 2021

Issuers by region

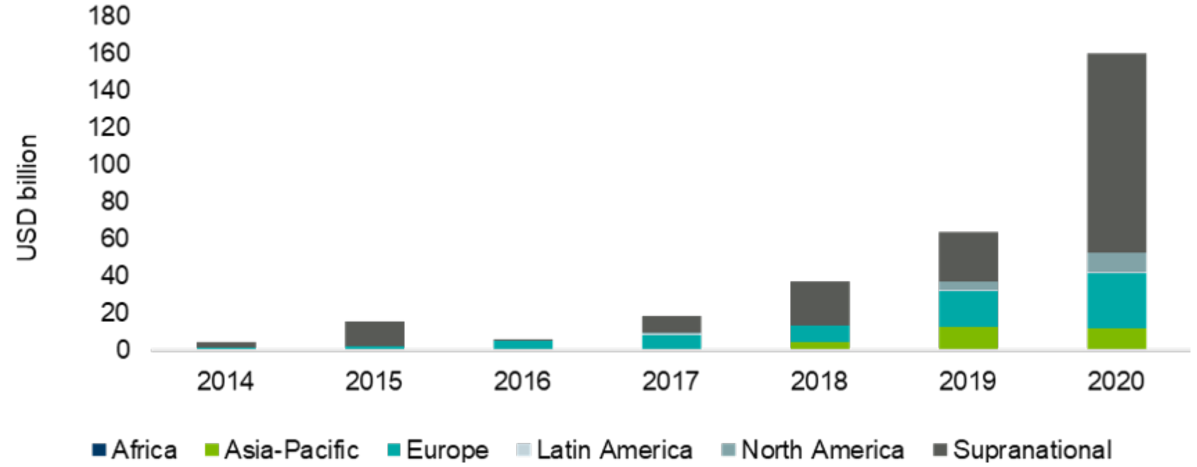
Green bonds



Social bonds



Sustainability bonds



Source: "Sustainable Debt Global State of the Market 2020", Climate Bonds Initiative, April 2021
Note that the above data may differ from data presented in Section 1.2, "Growth of sustainable bonds globally" as they are of different sources.

ANNEX C

CASE STUDIES OF SUSTAINABLE BONDS

The following chapter provides examples of green, social, sustainability, transition, sustainability-linked and gender bond issuances, together with summaries of the reports issued.

Case studies of green bonds

B.Grimm Power Public Company Ltd

Established in 1993, B.Grimm is one of Thailand's largest private power producers. B. Grimm has made public its commitment to raise the share of renewable energy generation in its overall portfolio from 10% to 30% in 2021. This is the first Certified Climate Bond issued in Thailand.

Bond summary	
Country	Thailand
Insurance Date	December 2018
Amount	THB 5 billion
Tenor	5 years (2023), 7 years (2025)
Coupon yield	3.6%
Investors	Wholly invested by Asian Development Bank
Standards used	Green Bond Principles, Climate Bonds Standard
External review	Assurance by DNV GL
Other information	CBI certified

Green bond framework

Use of proceeds

The proceeds will be used for projects and assets that fall under the category of renewable energy, including nine operational 67.7MW and seven new 30.8MW solar power plants.

Process for project evaluation and selection

B. Grimm proposed selection of Solar PV projects together with the associated development and construction costs. Projects will be selected based on compliance with the CBS Sector Technical Requirements for Solar Power.

Management of proceeds

The proceeds will be held in internal treasury cash accounts, to be allocated fully to nominated projects and assets within 6 months of issuance for refinancing and financing. The proceeds will not be invested in fossil fuel related projects.

Reporting

B. Grimm will report annually to investors. This will include financial information associated with the use of proceeds and details of the operational performance (MWh of generation for each project and asset).

Source: "B.GRIMM Green Bond Framework Commitments", B.GRIMM

2020 Annual Report Update

The annual report, published in 4 May 2020, covers activities within the period 1 January 2019 to 31 December 2019. It outlines compliance with the Climate Bond Standard and gives a reiterated summary on the bond's objectives and Green Bond Framework used. It provides updates on the allocation of proceeds, including the amount allocated, a brief description of the project, and measurable impact in terms of power delivered and avoided greenhouse gas emissions from carbon dioxide.

Eligible projects	Description	Impact	Amount allocated
B. Grimm Yanhee Solar Power (BGYSP)	Solar, 59.7MW	• 99.576MWh delivered • Avoided 69,036 ton CO_2 of GHG emissions (calculated from electricity generation x Thailand average CO_2 emission per unit of electricity generation)	THB 3,500 million
B. Grimm Solar Power (Sakaeo) 1 (BGPSK)	Solar, 8MW	• 12.1729MWh delivered • Avoided 8,439 ton CO_2 of GHG emissions (calculated from electricity generation x Thailand average CO_2 emission per unit of electricity generation)	
Solar for the War Veterans Organisation and the Agricultural Cooperation	Solar, 30.8MW	• 48.3033MWh delivered • Avoided 33,489 ton CO_2 of GHG emissions (calculated from electricity generation x Thailand average CO_2 emission per unit of electricity generation)	THB 1,500 million
Total			**THB 5,000 million**

Source: "Update Report for the Certified Climate Bond", B. Grimm, https://investor.bgrimmpower.com/misc/debenture-prospectus/20201021-bgrim-report-green-bond.pdf, accessed on 28 October 2020.

Case studies of green bonds

BTS Group Holdings

As Thailand's main mass transit service provider, BTS Group (BTSG) is a privately-owned conglomerate founded in 1993. As one of the largest companies in Thailand, it was selected as a component of the Dow Jones Sustainability Emerging Markets Index in 2018. The bond received an overwhelming response from both existing and new investors, and was 8.41 times oversubscribed.

Bond summary	
Country	Thailand
Insurance Date	May 2019
Amount	THB 13 billion
Tenor	2 years (2021), 3 years (2022), 5 years (2024), 7 years (2026), 10 years (2029)
Coupon yield	2.51% (2 years), 2.63% (3 years), 3.15% (5 years), 3.57% (7 years), 3.86% (10 years)
Underwriters	Bangkok Bank, Siam Commercial Bank
Investors	Including institutional investors (life insurance – 24%, asset management – 19%, non-life insurance – 3%, bank – 12%) and high-net worth individuals (15%)
Standards used	Green Bond Principles, Climate Bonds Standard, ASEAN Green Bond Standards
External review	Verification and second party opinion by Sustainalytics
Other information	CBI certified

Green bond framework

Use of proceeds

Proceeds will be used exclusively to refinance and finance projects in clean transportation and infrastructure supporting clean transportation operations.

Process for project evaluation and selection

Have a three step process for project evaluation and selection:

1. Evaluation – Each proposed project will be reviewed against the eligible green asset criteria by BTSG internal team (the "Green Bond Working Group"), which comprises of Treasury Department, Corporate Communication Department, Service Planning and MIS Department and Finance team of the project
2. Approval – The project will then be approved by the Executive Committee
3. Board of Directors Notification – The Executive Committee will then notify BTSG's Board of Directors of the allocation of proceeds

Source: "BTS Group Holdings PCL Green Bond Framework", https://www.btsgroup.co.th/storage/download/sustainability/green-bond/20190527-btsgroup-greenbond-framework-en.pdf, accessed on 28 October 2020.

Management of proceeds

Proceeds from the green bonds will be segregated into separate accounts within BTSG's finance and reporting system and tracked using BTSG's internal information systems, which is managed by its Accounting team. Unallocated proceeds will be held in cash or cash equivalents, and the use of proceeds will be verified by internal audit annually until bond is matured.

Reporting

Reporting will be done on an annual basis, with information on the allocation of proceeds and impacts. This will be made publicly available on the BTSG website.

The allocation reporting will include information on summary of projects financed by green bond, summary of allocation of proceeds and summary of unallocated proceeds.

In addition to allocation reporting, BTSG will also report a qualitative summary of specific measures, planned and carried out to reduce energy consumption and greenhouse gas emission and have overall a positive impact on the environment. When available, BTSG will report quantitative performance of the green bond such as number of passengers using electric transportation of the projects under the Green bond and amount of CO_2 emission reduction per year.

2020 Annual Report Update

The annual report covers up to the period of 31 March 2020 and includes a brief summary of BTSG's existing green bond portfolio. Specific information on the five tranches of bonds issued is given, including the amount, issue and maturity date, ISIN and coupon rate. The report also gives information on the use of proceeds for two clean transport projects in Bangkok, including how much of each bond tranche was allocated to each specific project.

Eligible projects	Description	Total investment amount	Amount funded by green bond that has been allocated
The Mass Rapid Transit Pink Line	Clean Transport, 100% refinance. A 34.5km monorail system with 30 stations, running from Khae Rai to Min Buri.	THB 49,400 million	THB 6,500 million
The Mass Rapid Transit Yellow Line	Clean Transport, 100% refinance. A 30.4 kilometer distance with 23 stations, running from Lat Phrao to Samrong.	THB 46,700 million	THB 6,500 million
Total			**THB 13,000 million**

Source: "Green Bond Report", BTS Group Holdings PCL, https://www.btsgroup.co.th/storage/download/sustainability/green-bond/bts-green-bond-report-2020-en.pdf, accessed on 28 October 2020.

Case studies of green bonds

Bank for Agriculture and Agricultural Cooperatives

Established in 1966, the Bank for Agriculture and Agricultural Cooperatives (BAAC) is a state enterprise owned by the Thai Ministry of Finance. It provides assistance to farmers, farmer associations and agricultural cooperatives through financial support, knowledge and technical expertise.

Bond summary	
Country	Thailand
Insurance Date	August 2020
Amount	THB 6 billion
Tenor	5 years (2025), 10 years (2030)
Coupon yield	1.76% (5 years), 2.76% (10 years)
Underwriters	Government Savings Bank, Krung Thai Bank Public Company Limited, the Hongkong and Shanghai Banking Corporation Limited (Bangkok Branch)
Investors	Government entities, commercial banks and insurance companies
Standards used	Green Bond Principles, ASEAN Green Bond Standards
External review	Assurance by EY

Green bond framework

Use of proceeds

The proceeds will be used exclusively to finance or refinance projects that fall under the category of forestry or environmental conservation, in compliance with the forest and environmental laws of Thailand. The framework has also set out specific exclusion criteria for projects, such as fossil fuel power plant projects and projects that involve conversion of existing forested areas.

Process for project evaluation and selection

Projects will be evaluated by the Green Bond Working Group, as appointed by the BAAC, in accordance to the criteria laid out by the green bond framework. The Working Group will then present selected projects to the President of the BAAC for acknowledgement.

Management of proceeds

Unallocated proceeds will be held by the BAAC's department responsible for supervision and management of proceeds in the form of cash, cash equivalents or invested in the money market and a report will be made. Allocated proceeds from the green bond will be reviewed once a year. The use of proceeds and internal control of management of proceeds will be audited annually by the BAAC's department responsible for supervision of audit.

Reporting

Reporting will be conducted on an annual basis until the maturity of the green bond. The report will be published at BAAC's website. There will be 2 reports:

- **Allocation report** that includes information on project name and summary of details of projects financed or refinanced and summary of the amount of allocated and unallocated proceeds
- **Impact report** which may include the following indicators: reduction in amount of carbon emissions, forest area receiving standard certification, additional forestation area converted, organic agricultural area and amount of electricity generated

Source: "Bank for Agriculture and Agricultural Cooperatives Green Bond Framework", https://www.baac.or.th/file-upload/15345-1-Green%20Bond_Framework.pdf, accessed on 27 October 2020.

Case studies of social bonds

National Housing Authority

Established in 1973, the National Housing Authority (NHA) is a state enterprise attached to the Ministry of Social Development and Human Security with a mandate to address the problem of affordable housing. It has recently issued its first social bond with support from the Asian Development Bank.

Bond summary	
Country	Thailand
Insurance Date	September 2020
Amount	THB 1 billion (5year), THB 2.8 billion (10 years) and THB 3 billion (15 years)
Tenor	3 tranches: 5 years (2025), 10 years (2030) and 15 years (2035)
Coupon yield	Fixed 1.02% (5years), fixed 1.64% (10 years) and fixed 1.9% (15 years)
Investors	Public offering
Standards used	ASEAN Social Bond Standards and ICMA's Social Bond Principles
External review	Assurance by DNV GL

Social bond framework

Use of proceeds

Proceeds will be used to finance new and/or existing eligible affordable housing projects aiming to create a “Smart Home, Smart Community and Smart City for Sustainable and Better Welling” or for refinancing of NHA debt from development of eligible affordable housing projects. The target population are people who are in need of housing and basic services around the country.

Process for project evaluation and selection

The NHA has established a dedicated working team to ensure that eligibility criteria are met and proceeds will be used in accordance with the eligible categories. The working team consists of representatives from Policy and Planning, Finance and Budget Administration, Accounting, Project Development, Marketing and Sales, Housing Credit and Loans Management, and Community Management. The next steps are to obtain approval from the Governor, followed by the Board of Directors.

Management of proceeds

The proceeds will be separately deposited in NHA’s specific account managed by the finance and investment administration department. The use of proceeds will be reported quarterly to the Working Team for Green Bond, Social Bonds and Sustainability Bonds, and annually to the Governor and the NHA’s Board of Directors, respectively. NHA is committed to allocate proceeds within 24 of months after issuance. Any unallocated proceeds will be held in cash or cash equivalent and/or other eligible assets pending allocation. NHA will also disclose the proportion of financing and refinancing and expected look back period for refinancing projects.

Reporting

The NHA will publish annual report on allocation of proceeds and impact reporting. Potential impact indicators are (i) number of households housed with new and/or retrofit affordable housing provided by the NHA, (ii) number of households who own homes under hire purchase housing scheme with the NHA, etc.

Source: “National Housing Authority Social Bond Framework”, NHA, August 2020

Case studies of social bonds

MORhomes

MORhomes is a centralized borrowing vehicle for the social housing sector comprising over 60 shareholders not-for-profit housing associations that provide social and affordable housing, with a market share of more than 30% in the UK's social and affordable housing market. This is the second social bond issued in the UK.

Bond summary	
Country	United Kingdom
Insurance Date	February 2019
Amount	GBP 250 million
Tenor	19 years (2038)
Coupon yield	3.40%
Underwriters	Barclays, JP Morgan, Morgan Stanley (initial issue only); NatWest (both taps)
Standards used	Social Bond Principles
External review	Second party opinion by Sustainalytics, Credit Rating: A- (S&P Global)

Green bond framework

Use of proceeds

Proceeds will be on-lent to MORhomes members and shareholders, who are not-for-profit registered social and affordable housing providers. They will be used to finance or refinance social and affordable housing projects (construction, refurbishment or maintenance). On-lending of the proceeds to housing associations deemed to be involved in any activities incompatible with the social mission of MORhomes, or which directly or indirectly generate significant negative social impacts will be excluded.

Process for project evaluation and selection

Project evaluation and selection will be overseen by MORHomes' Socially Responsible Investment (SRI) Committee.

Management of proceeds

All net proceeds will be on-lent immediately to the eligible housing associations, and applied on a 'back-to-back' basis by the paying agent to a series of identified loans arranged in connection with Housing Association social/affordable housing projects. As such MORhomes will not establish arrangements to temporarily hold, disburse and manage proceeds.

Source: "MORhomes PLC Social Bonds Framework", Morhomes PLC, https://morhomes.co.uk/wp-content/uploads/2019/03/WD2210-MORhomes-social-bond-framework.pdf, accessed on 29 October 2020.

Reporting

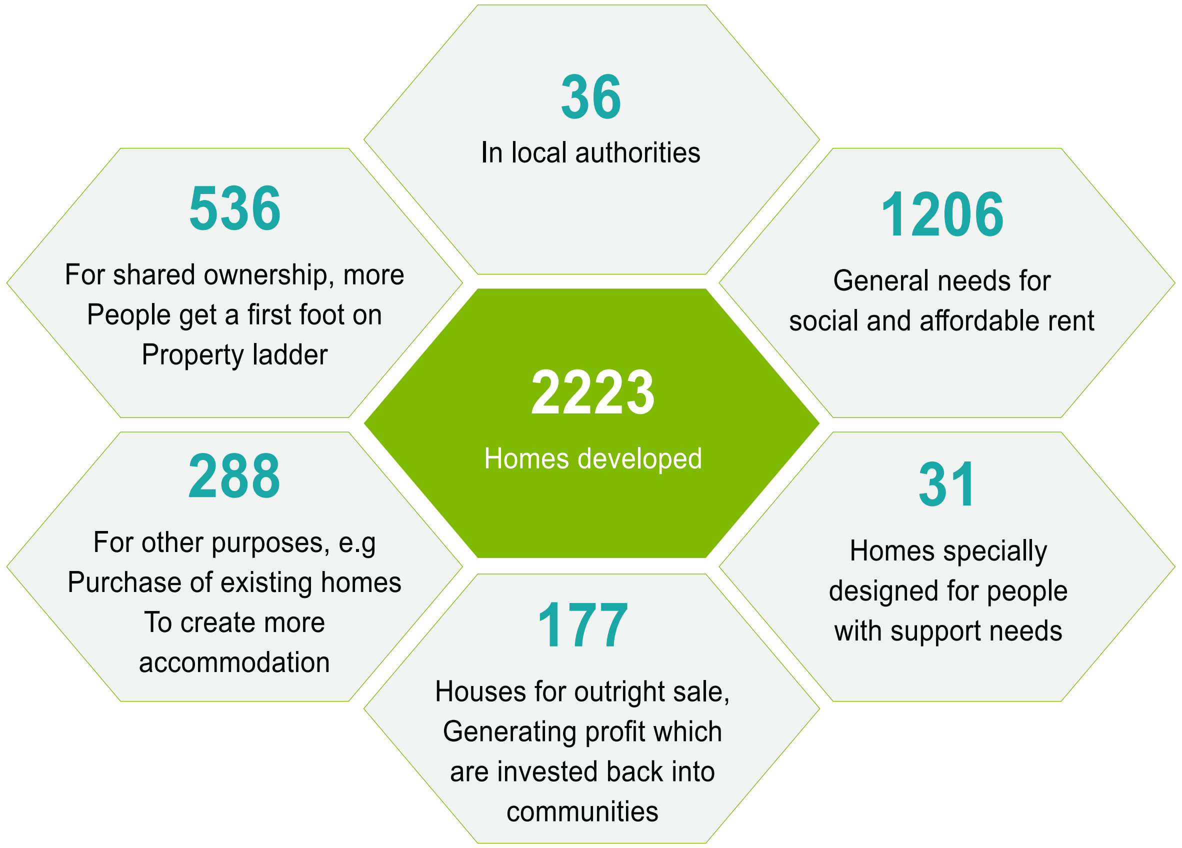
Reporting will be conducted on an annual basis, and updates will be published on the MORhomes website. Information will include details on the allocation of proceeds by housing associations financed, overall trends in underlying projects financed, relevant example case studies and relevant outcomes (such as the number of housing units constructed) based on global housing association data.

2019/20 Annual Report Update

The annual report, published on MORHomes' website, outlines the activities of MORHomes' borrowers. It includes information on MORHomes' borrowers, highlights of the social impact created from their activities, case studies on the benefits created and an appendix of the 66 housing projects to which MORHomes' proceeds have been allocated.

Total MORhomes funding	Total gross scheme costs	Total homes	Average scheme cost per home	Average MORhomes funding per home
GBP 260 million	GBP 401 million	2,233	159,000	101,000

Social impact highlights



Source: "Social Impact Report 2019/20", MORHomes, https://morhomes.co.uk/wp-content/uploads/2020/02/MORhomes-Social-Impact-Report-2019.20-2.pdf, accessed on 29 October 2020

Case studies of social bonds

Citigroup

Citigroup is an American multi-national investment bank and financial services company. Citi is currently the biggest financier of affordable housing in the United States, having helped to create or preserve nearly 500,000 affordable homes in the past decade, helping especially Black and Latino communities. This is largest social bond issuance ever from the private sector.

Bond summary	
Country	United States
Insurance Date	October 2020
Amount	USD 2500 billion
Tenor	4-year non-call, 3-year fixed to floating rate
Underwriters	Blaylock Van LLC, CastleOak Securities, L.P., Loop Capital Markets LLC and Samuel A. Ramirez & Co. Inc. Academy Securities, Inc., Great Pacific Securities, MFR Securities, Inc., Roberts & Ryan Investments Inc. and Siebert Williams Shank & Co., LLC
Standards used	Social Bond Principles
External review	Second party opinion by Sustainalytics

Social bond framework

Use of proceeds

Proceeds will be used to finance or refinance a portion of Citi's Affordable Housing Bond Asset Portfolio, which aims to support the provision of affordable housing to low and moderate-income populations in the US. Eligible financing instruments consist of construction loans and permanent loans (debt financing), as well as partnership and/or ownership interest (equity financing). Exclusionary criteria include projects that are outside the US, do not align with the purposes of providing affordable housing, generate adverse social impacts, mortgage-backed securities and other derivatives, and investments of weak financial strength.

Process for project evaluation and selection

Potential assets will be reviewed against eligibility criteria by Citi Community Capital. All investments will be subject to both internal evaluation by Citi's Risk Management Group and other review mechanisms, while external evaluation will be done via annual reviews of Citi Community Capital by the Office of the Comptroller of the Currency (OCC).

Management of proceeds

The Affordable Housing Bond Asset Portfolio will be tracked by Citi's internal asset management system. The Affordable Housing Bond Working Group, co-chaired by Citi's Chief Investment Officer and Co-Head of Citi Community Capital, will oversee the management of proceeds. Unallocated proceeds will be converted to cash, cash equivalents and/or other liquid marketable instruments.

Reporting

Reports will be published annually on Citi's website, and provide information on the amount of allocated and unallocated proceeds. It will outline the number of assets funded, as well as associated social impacts such as number of housing developments, number of planned housing units, etc.

Source: "Citi Social Bond Framework for Affordable Housing", Citigroup, https://www.citigroup.com/citi/fixedincome/data/affordable_housing_bond.pdf?ieNocache=424, accessed on 29 October 2020.

Case studies of sustainability bonds

Kasikornbank

Established in 1945, KASIKORNBANK (KBank), formerly known as the Thai Farmers' Bank, is a Thai commercial bank that offers services to retail clients, SMEs, large corporates and institutional clients. Being the first sustainability bond to be issued in Thailand, it received an overwhelmingly positive response with the full subscription within one day.

Bond summary	
Country	Thailand
Insurance Date	October 2018
Amount	USD 100 million
Tenor	5 years (2023)
Coupon yield	Floating interest rate based on Libor plus 0.95 percentage points
Underwriters	BNP Paribas
Investors	Foreign institutional investors
Standards used	Sustainability-Linked Bond Principles, ASEAN Sustainability Bond Standards
External review	Second party opinion by Sustainalytics
Other information	Alignment with a number of Sustainable Development Goals (SDGs) (1,7,8,9,10,11)

Sustainable bond framework

Use of proceeds

Proceeds will be used to finance or refinance eligible social and environmental projects. Eligible categories for projects are: renewable energy, energy efficiency, green buildings, clean transportation, access to essential services, affordable housing, employment generation, and socioeconomic advancement and empowerment. Projects that deal with illegal activities, alcohol, tobacco, weapons, munitions and all fossil fuel-related activities are excluded.

Process for project evaluation and selection

Projects will be jointly sourced and identified by the Credit Underwriting Department, Corporate Credit Product Management Department, Corporate Segment Management Department and SME Segment Management Department. The process of review and approval for nominated projects will be overseen by the Sustainable Bond Working Group (SBWG), which comprises representatives from the aforementioned departments as well as the Central Treasury Department, Sustainable Development Unit and Risk Management Department. KBank will also use its established Environment and Social Impact Assessment (ESIA) to assess such impacts prior to the credit underwriting process.

Management of proceeds

The project register will be managed via the bank's internal system by Central Treasury Department and Sustainable Development Unit, and allocation of proceeds will be reviewed three time annually by the SBWG.

Reporting

Reporting will be conducted on an annual basis, with reports published on the KBank website. This will include both allocation and impact reporting of projects.

2019 Annual Report Update

The report contains information on the allocation of proceeds and projects financed, including the distribution of proceeds between green (65%) and social (35%) project categories, and further breakdown within each category on the allocation by sector.

As of end 2019, the bond has been fully allocated to the projects below. 63% and 38% of amount allocated to green and social projects, respectively are used for refinancing.

Eligible project category	Description	Impact	Amount allocated
Green Projects			
Renewable energy (solar energy)	7 projects; total capacity 37.6MW	51,840,621 kWh produced	USD 26.60 million
Renewable energy (waste to energy)	1 project; total capacity 9.4MW	72,000,000 kWh produced	USD 11.87 million
Green buildings	2 projects		USD 26.47 million
Social Projects			
Employment generation	3 projects; Overdraft for SMEs payroll program, Franchise credit program, Overdraft program for retail shops	707 projects/beneficiaries	USD 33.37 million
Access to essential services	1 project; K-Personal loan for pensioners	193 projects/beneficiaries	USD 1.67 million

Source: "KASIKORNBANK Sustainability Bond Framework", KASIKORBANK, https://kasikornbank.com/en/sustainable-development/sustainability-bond/SustainableBondFramework/KASIKORNBANK%20Sustainability%20Bond%20Framework.pdf, accessed on 29 October 2020;

"KASIKORNBANK Sustainability Bond", KASIKORNBANK, https://www.kasikornbank.com/en/sustainable-development/sustainability-bond/SustainableBondReport/Allocation_And_Impact_Report_2019.pdf, accessed on 29 October 2020

Case studies of sustainability bonds

Thai Ministry of Finance, Public Debt Management Office

The Public Debt Management Office (PDMO) was established on 1 October 1999. The PDMO is made up of several departments from the Fiscal Policy Office (FPO) and from the Comptroller General Department (CGD). Establishing PDMO as a specialized entity overseeing public debt management operations was necessary in order to borrow and manage public debt in a more swift and efficient manner.

Bond summary	
Country	Thailand
Insurance Date	August 2020
Amount	Two tranches: THB 10 billion and THB 20 billion
Tenor	15 years (2035)
Coupon yield	Fixed 1.585%
Investors	Onshore and offshore investors led by insurance companies, asset management companies, government-related funds, and financial institutions. It also attracted a number of ESG-focused investors
Standards used	ICMA's Green and Social Bond Principles and Sustainability Bond Guidelines and Loan Market Association (LMA)'s Green Loan Principles
External review	Assurance by DNV GL

Sustainable bond framework

Use of proceeds

Proceeds will be exclusively used to finance and/or refinance eligible green and/or social projects. For this bond, THB 10 billion will be used to finance the Mass Rail Transit (MRT) Orange Line (East) in Bangkok and another THB 20 billion to support the COVID-19 financing package (healthcare, employment generation through potential effect of SME financing and microfinances).

Process for project evaluation and selection

The committee, which consists of PDMO, Budget Bureau, Office of the National Economic and Social Development Council, State Enterprise Policy Office, Office of Natural Resources and Environmental Policy and Planning, the Securities and Exchange Commission and Thai Bond Market Association, will review and verify eligible projects.

Management of proceeds

The proceeds will be transferred to the government treasury reserve account. The committee will maintain an allocation register to record the proceeds allocation. Unallocated funds will be invested in temporary liquid investments.

Reporting

The government will issue allocation reports and impact reports, which will be made available to investors on PDMO's website. It also provides examples of impact indicators such as reduced and/or avoided GHG emissions, reduction in energy consumption, expected annual renewable energy generation, etc.

Sources: "Sustainable Financing Framework Jul 2020", Kingdom of Thailand, accessed on 29 October 2020

Case studies of sustainability bonds

HSBC Holdings

The Hong Kong and Shanghai Banking Corporation (HSBC) is a multi-national bank and financial services company headquartered in the United Kingdom. Having issued its first green bond in 2015, HSBC has pledged to provide USD 1 billion in sustainable finance and investment by 2025. This is the first ever sustainability bond issued by a corporate.

Bond summary	
Country	United Kingdom
Insurance Date	November 2017
Amount	USD 1 billion
Tenor	6 years (2023)
Underwriters	HSBC
Standards used	Green Bond Principles, Social Bond Principles, Sustainability Bond Guidelines
External review	Second party opinion by Sustainalytics
Other information	Alignment with 7 UN SDGs (3, 4, 6, 7, 9, 11, 13)

Sustainable bond framework

Use of proceeds

Proceeds will be used to finance or refinance businesses and/or projects that promote any of the seven selected SDGs (SDG 3, 4, 6, 7, 9, 11, 13). Exclusions include the sectors of nuclear power generation, weapons, alcohol, gambling and adult entertainment and palm oil. Lending to companies that cause deforestation or operate in the coal sector will also be ineligible.

Process for project evaluation and selection

HSBC's Green Bond Committee, established in 2015 for issuance of its inaugural Green Bond, will also oversee the process of selection and approval of projects for its SDG Bond. The Green Bond Committee will be responsible for ratification of eligible businesses and projects in accordance to the aforementioned eligibility criteria. Group Sustainability will have final veto on all eligibility decisions. Internal knowledge and expertise will also used in decision-making, including the HSBC Climate Change Center of Excellence.

Management of proceeds

Use of proceeds will be tracked by HSBC's internal information systems, and a register recording each specific facility allocated with a unique position identifier will be established. Unallocated proceeds may be invested according to local liquidity management guidelines.

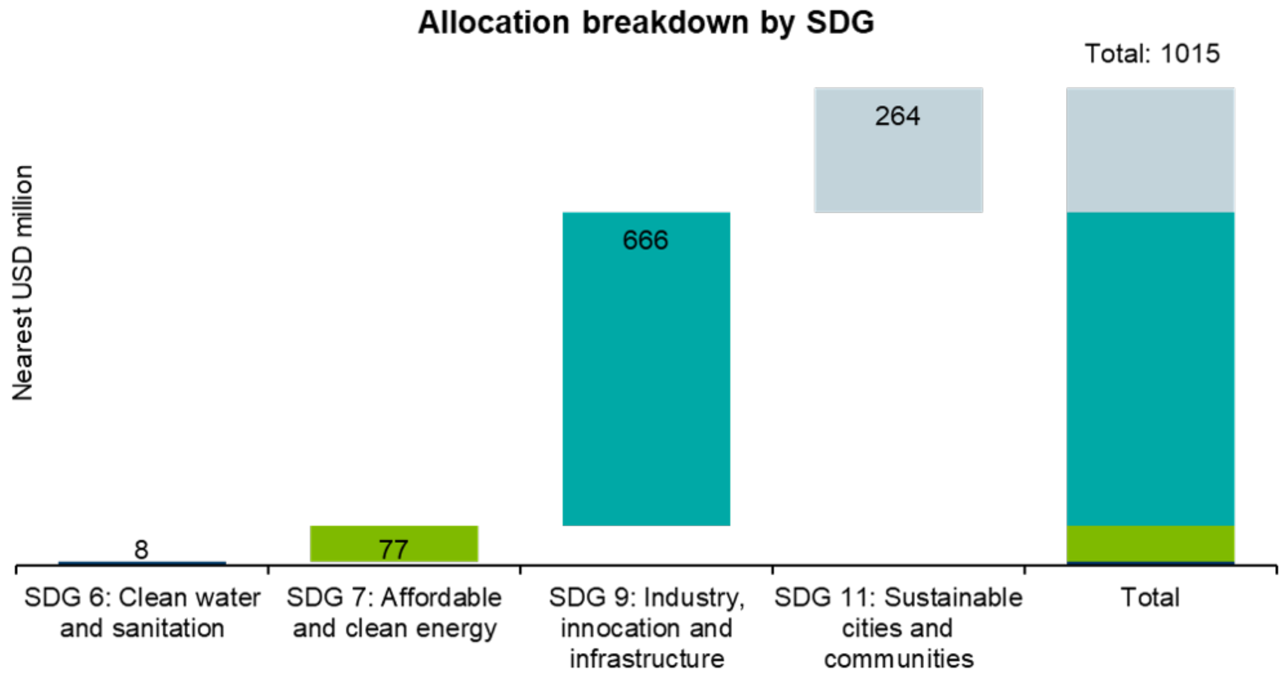
Source: "HSBC Sustainable Development Goal (SDG) Bond Framework November 2017", HSBC, https://www.hsbc.com/-/files/hsbc/investors/fixed-income-investors/green-and-sustainability-bonds/pdfs/171115-hsbc-sdg-bond-framework.pdf?download=1, accessed on 29 October 2020

Reporting

Reporting will be done an annual basis. Allocation reporting will include information on the total amount of funds allocated and unallocated, as well as confirmation of appropriate use of proceeds in line with the framework. Impact reporting will provide indicative impact metrics for each specific SDG.

2020 Annual Report Update

The annual report, published October 2020, covers the HSBC SDG Bond 2017, HSBC SDG Sukuk 2018 and green certificate deposit. It contains a summary of the HSBC SDG Bond Framework, evaluation process of project selection, and information on the allocation of proceeds as of end June 2020. Details on allocation are broken down by SDG category, geography, and financing instrument type. In total, 15 projects have been supported by the HSBC SDG Bond 2017.



Source: "HSBC UN Sustainable Development Goals Bond and Sukuk Report", HSBC, October 2019.

Case studies of sustainability bonds

PT Bank Rakyat Indonesia (Persero) Tbk

Established in 1895, PT Bank Rakyat Indonesia (Persero) Tbk, or Bank BRI, is Indonesia's oldest bank, and the largest bank by assets. With long history of serving micro, small and medium enterprises (MSMEs), and has received numerous awards, including "Best Microfinance Product" from the Asian Banker in 2017. This is the second sustainability bond to be issued in Indonesia, and was oversubscribed by 8.2 times.

Bond summary	
Country	Indonesia
Insurance Date	March 2019
Amount	USD 500 million
Tenor	5 years (2024)
Coupon yield	3.95%
Underwriters	Crédit Agricole CIB
Standards used	Sustainability Bond Guidelines, Social Bond Principles, ASEAN Sustainability Bond Standards
External review	Second party opinion by Sustainalytics
Other information	Alignment with 8 UN SDGs (6, 7, 8, 9, 10, 11, 12, 15)

Sustainable bond framework

Use of proceeds

Proceeds will be used to finance or refinance projects in line with the 8 selected SDGs (SDG 6, 7, 8, 9, 10, 11, 12, 15). Eligible categories for social projects include affordable basic infrastructure, access to essential services, affordable housing, employment generation and socioeconomic advancement. Eligible categories for environmental projects include renewable energy, green buildings, pollution prevention and control, environmentally sustainable management of living natural resources and land use, clean transportation and sustainable water and waste water management. Exclusionary criteria include large-scale hydro projects, fossil fuel-related assets, palm oil, alcohol and tobacco, military goods, nuclear power generation, harmful substances, gambling, trade in endangered species of wildlife or wildlife products, agricultural/afforestation operations on primary forests, and exploitative labor.

Process for project evaluation and selection

BRI adopts a two-step approach to project evaluation and selection, whereby (i) projects are nominated by relevant business units after preliminary screening against eligibility criteria and (ii) nominated projects are reviewed and approved by Enterprise Risk & Portfolio Management Division, Asset and Liabilities Management Division, and Treasury Business Division.

Source: "Sustainability Bond Framework", PT Bank Rakyat Indonesia (Persero) Tbk, March 2019.

Management of proceeds

An Asset Pool of qualifying assets will be maintained and monitored via Bank BRI's internal information systems, and a register will be established to facilitate monitoring and reporting. Pending proceeds may be deployed into cash or high-quality marketable instruments.

Reporting

Reporting will be conducted on an annual basis. Allocation reporting will detail the number of eligible assets by category and the total amount of allocated and unallocated proceeds. Impact reporting will provide indicative impact metrics for each eligible category of projects.

2019 Annual Report Update

The annual report contains a reiterated summary of bond details and Bank BRI's Sustainability Bond Framework. Allocation of proceeds is broken down by green (16%) and social (84%) projects, as well as by eligible project category. Description of the use of proceeds and estimated impacts are given for each sector, with two example projects highlighted in greater details.

Eligible project category	Description	Estimated Impact	Amount allocated	
			IDR	USD
Employment generation	Allocated to kupedes loans	Job creation of more than 65,000 in Indonesian MSMEs	2,935 billion	207 million
Socio-economic advancement and empowerment	Allocated to financing and/ or refinancing Bank BRI's micro KUR loans	Job creation of more than 180,000 in Indonesian MSMEs	3,015 billion	212 million
Affordable housing	Allocated to mortgage, especially distribution of government subsidized home loans	1,200 low-income households benefited	40 billion	3 million
Green transportation	Allocated to three clean transportation projects in Jakarta: • Light Rail Transportation infrastructure project • Airport electric train with 30km route • Electric train with 70km route	• Support for three railway projects with an expected 84.5 million passengers per year • 8,590 tonnes of CO_2e avoided	525 billion	37 million
Green buildings	Allocated to investment in green building project in Jakarta	Construction of new building with "Platinum" level of the Green Building Council of Indonesia's GREENSHIP label	585 billion	41 million

Source: "2019 Annual Sustainability Bond Report", PT Bank Rakyat Indonesia (Persero) Tbk, 30 December 2019.

Case studies of transition bonds

Castle Peak Power Company Limited

Castle Peak Power Company Limited (CAPCO), a joint venture between CLP Power Hong Kong Limited (CLP Power) and China Southern Power Grid International, operates three coal fired power stations in Hongkong with a total capacity of 4,108 megawatts. CAPCO successfully issued a USD 350 million energy transition bond under the Climate Action Finance Framework (CAFF) in 2017.

Bond summary	
Country	British Virgin Islands (BVI)
Insurance Date	July 2017
Amount	USD 500 million
Tenor	10 years (matures in 2030)
Coupon yield	3.25% p.a.
Underwriters	Joint Lead Managers and Joint Bookrunners: ANZ, BNP Paribas, Crédit Agricole CIB, HSBC and Standard Chartered Bank
Investors	Institutional investors (fund managers – 49%, insurance companies – 25%, banks – 15%, government-related entities – 9 % and private banks – 2%)
External review	Second party opinion by DNV GL
Other information	The world's first transition bond

Transition bond framework

Use of proceeds

Proceeds will be used to finance or refinance (i) building of natural gas fired power plants, and associated enabling infrastructure and (ii) the conversion of coal fired power plants and the facilities or modifications associated with such conversion.

Process for project evaluation and selection

The CLP Group Climate Action Finance Committee ("CAFC"), made up of senior management including representatives from each of finance, sustainability and legal departments will review and approve all CLP Climate Action Finance Transactions under the CAFF. CLP Group Business Units will propose to the CAFC eligible projects that can fulfil the criteria.

Management of proceeds

Proceeds from the CAFT are deposited in bank accounts used for CPL group business unit. Each group registers to make the track record of the use of CAFT, including the amount and nature of the allocation and balance of the unallocated proceeds.

Source: "CLP Climate action finance Framework", https://www.clpgroup.com/content/dam/clp-group/channels/investor/document/3-9-climate-action-finance-framework/CLP%20Climate%20Action%20Finance%20Framework.pdf.coredownload.pdf, accessed on 4 November 2020.

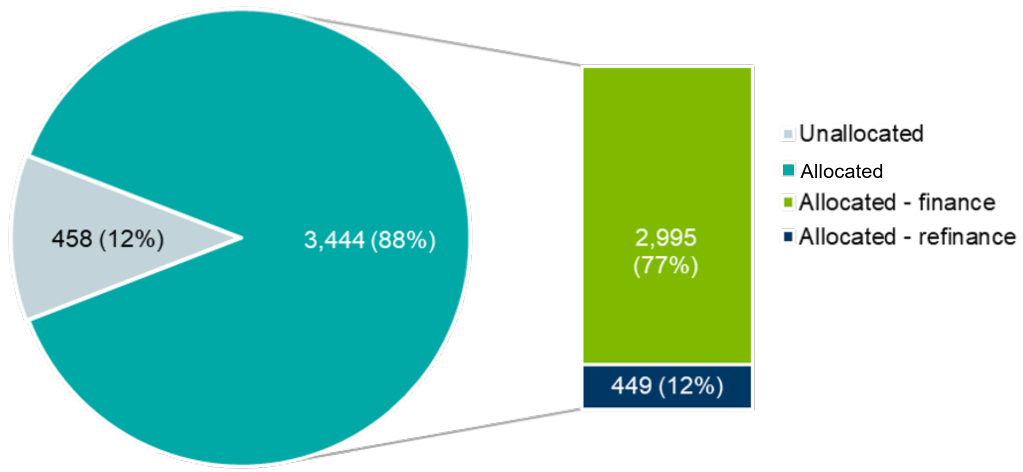
Reporting

Reporting is on an annual basis on the company website, and includes information on the eligible investment and expenditures, the environmental impact and the amount of unallocated cash.

2019 Annual Update

The annual report contains a reiterated summary of CLP's Climate Action Finance Framework (CAFF), as well as a summary of bond details for CLP's Energy Transition Bond and New Energy Bond, issued July 2019. It gives an overview on the allocation of proceeds thus far, and includes project details on CAPCO's Combined Cycle Gas Turbine (CCGT) Generation Unit, of which proceeds of the transition bond are used for. Progress updates as of 2019 are also given, with images included.

Allocation of CAPCO's Energy Transition Bond Proceeds (HKD million)



CAPCO's Combined Cycle Gas Turbine (CCGT) Generation Unit	
Location	Black Point Power Station, Hong Kong
Total investment amount	HKD 5.5 billion
Amount to be financed by Energy Transition Bond	HKD 3.9 billion (USD 500 billion)
Installed capacity	550MW, 61% generation efficiency
Estimated environmental impact	• 1 to 2 million tonnes of CO_2 emissions avoided annually • Expected emission intensity to be less than 2016 carbon intensity of CLP's Hong Kong customers (540g CO_2/kWh), meeting requirement for qualification of an Energy Transition Bond • Potential reduction in annual NOx emissions of up to 19%, SO_2 and RSP emissions of up to 20%

Source: "2019 Climate Action Finance Report", CLP Holdings, https://sustainability.clpgroup.com/en/2019/xmlpages/tan/files?p_file_id=31, accessed on 29 October 2020.

Case studies of transition bonds

Cadent Gas

As the UK's largest gas distribution network, Cadent manages approximately 131,000 kilometers of gas pipeline serving 11 million customers throughout the North West, West Midlands, East of England and North London.

Bond summary	
Country	United Kingdom
Insurance Date	March 2020
Amount	EUR 500 million
Tenor	12 years (matures in 2032)
Coupon yield	Priced at 0.75%
Underwriters	BNP Paribas, Credit Agricole CIB, Mizuho Financial Group, RBS
Standards used	The EU Sustainable Finance Taxonomy and the UK's National Adaption Plan
External review	Second party opinion by DNV-GL
Other information	The first transition bond in the UK

Transition bond framework

Use of proceeds

Proceeds are used to finance and refinance new and eligible projects (e.g., retrofits of gas transmission and distribution networks, renewable energy, clean transportation and energy efficiency in buildings).

Process for project evaluation and selection

Projects and assets are evaluated and nominated by a project team, which is comprised of representatives from the treasury team and CSR team.

Management of proceeds

Proceeds from transition bonds are held in a general account. An amount equal to the net proceeds is earmarked for allocation to eligible projects and tracked on a quarterly basis. Under the Cadent framework, payments of principal and interest are not linked to the performance of the project. Cadent is committed to fully allocate the bond's proceeds within 24 months.

Reporting

A report is published on an annual basis on the company website. This includes allocation of net proceeds and the associated impact related to transition bond within one year of issuance until the proceeds are fully allocated.

Source: "Cadent Transition Bond Framework", https://cadentgas.com/nggdwsdev/media/Downloads/investor%20relations/Cadent-Transition-Bond-Framework.pdf, accessed on 5 November 2020.

Case studies of sustainability-linked bonds

Enel

Enel SpA, a multinational energy group, engages in generating and selling energy in and outside the Netherlands. The company focuses on researching and developing new environmentally friendly technology for the renewable energy sector. In September 2019, it set a CO_2 emission reduction target that is fully aligned with the Paris Agreement and is certified by the Science Based Target Initiative.

Bond summary	
Country	The Netherlands
Insurance Date	September 2019
Amount	USD 1.5 billion
Tenor	5 years (matures in 2024)
Coupon yield	Priced at 2.650%
Underwriters	Joint bookrunners: Bank of America Merrill Lynch, Citi, Credit Agricole CIB, Goldman Sachs, JP Morgan, Morgan Stanley and Société Générale
Investors	Institutional investors
Standards used	Sustainability-Linked Bond Principles, administered by ICMA
External review	Vigeo Eiris

Sustainability-linked bond framework

Selection of KPIs

- Direct greenhouse gas emissions
- Renewable installed capacity percentage

Calibration of SPT

- 70% of reduction of direct GHG emission per kWh by 2030, compared with 2017 baseline.
- 55% renewable installed capacity by 2021 and 60% by 2022, compared with 2019 baseline.

Bond Characteristics

The rate will step up by +25bps if the target condition is not satisfied.

Reporting

Direct greenhouse gas emissions will be reported by Enel on an annual basis in its sustainability report while the renewable installed capacity percentage will be reported on annual basis on Enel's website and annual report. The report may include up-to-date information on the performance of the KPI, a verification assurance report and any relevant information which enables investors to monitor the progress of the SPT.

Source: "Sustainability-Linked Financing framework", Enel, October 2020.

SUSTAINABLE BOND ISSUANCE GUIDE

Verification

Performance of KPI and SPT will be verified by external verifiers

- Renewable installed capacity will be reviewed by qualified assurance/attestation service provider i.e. EY s.p.A, KPMG S.p.A.
- Direct statement of greenhouse gas emission amount will be reviewed by third party services provider

Sustainable strategy related to SDGs

Selection of Key Performance Indicator (KPI)	SDG
KPI#1 Direct greenhouse gas emission amount	13
KPI#2 Renewable installed capacity percentage	7

Independent Assurance Report as of 30 June 2020

The below table presents renewable energy installed capacity percentage as of 30 June 2020.

Description		Amount in MW
Renewable energy installed capacity	(a)	42,892
Total installed capacity	(b)	82,711
Renewable installed capacity percentage	(a)/(b)	51.9%

Source: "Independent Auditors' report ", KPMG, July 2020.

Case studies of sustainability-linked bonds

Suzano S.A.

Suzano S.A., a Brazilian company, operates as a subsidiary of Suzano Holding S.A. The company mainly engages in producing and selling eucalyptus pulp and paper product in Brazil and internationally.

Bond summary	
Country	Brazil
Insurance Date	August 2020
Amount	USD 750 million
Tenor	10 years (matures in 2031)
Coupon yield	Priced at 3.75%
Underwriters	Joint underwriters: BNP Paribas, BofA Securities Inc, Credit Agricole Securities, JP Morgan Securities LLC, Mizuho Securities LLC, Mizuho Securities USA LLC, Rabo Securities USA Inc. and Scotia Capital (USA) Inc
Standards used	Sustainability-Linked Bond Principles, administered by ICMA
External review	ISS-ESG
Other information	The first emerging market sustainability-linked bond

Sustainability-linked bond framework

Selection of KPIs

GHG emission intensity reduction: tCO_2e/ton of product produced (paper and pulp) (scope 1 and scope 2 emissions)

Calibration of SPT

10.9% of reduction in GHG intensity from 2015 baseline, which should be lower than or equal to 0.190 tCO_2e/ton in average year end of 2024 and 2025.

15% of reduction of GHG intensity or 0.181 tCO_2e/ton in 2030.

Bond Characteristics

The coupon will step-up by 25bps if the SPT is not achieved.

Source: "Sustainability-Linked Securities Framework", Suzano, August 2020.

Reporting

A Sustainability Report will be published on an annual basis. The report will include up-to-date information on the performance of the KPI, a verification assurance report and any relevant information which enables investors to monitor the progress of the SPT.

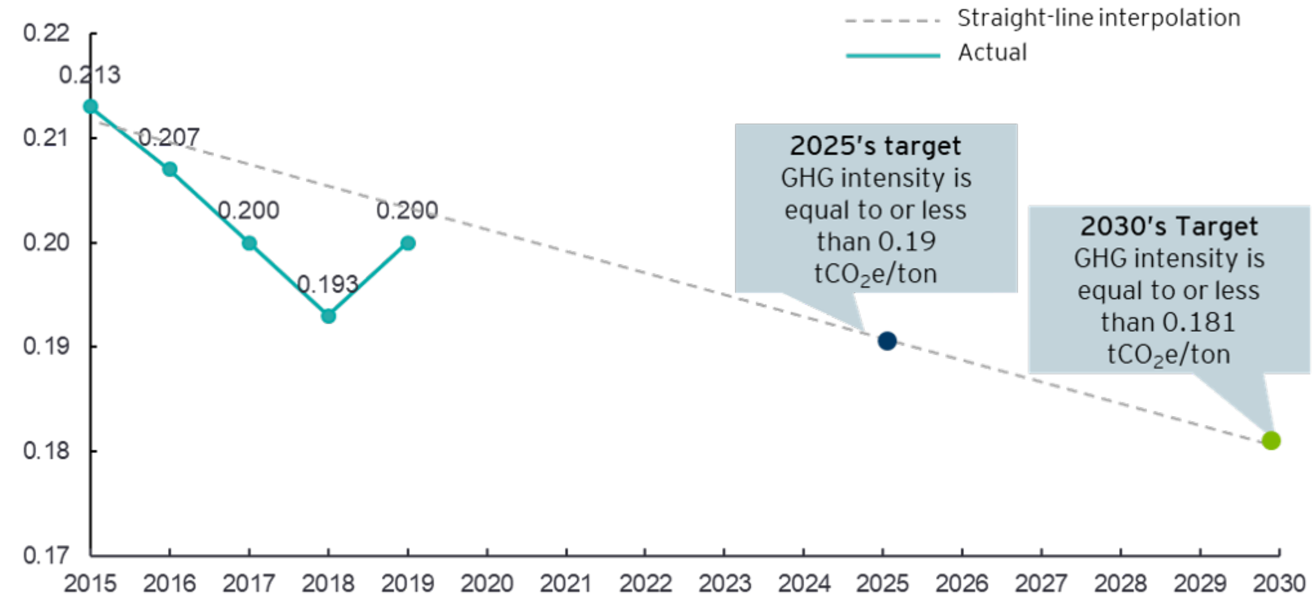
Verification

- The KPIs will be externally verified by BureauVeritas on an annual basis.

Sustainable strategy related to SDGs

Selection of Key Performance Indicator (KPI)	SDG
KPI#1 GHG emission intensity reduction	13

GHG Emission intensity tCO_2e/ton produced



Source: "Sustainability-Linked Securities Framework, Suzano, August 2020.

Case studies of sustainability-linked bonds

Novartis

Novartis, a global healthcare company based in Switzerland, engages in researching, developing and marking healthcare products worldwide. The company's main markets are Europe and the US, followed by Asia, Africa and Australasia, respectively.

Bond summary	
Country	Switzerland
Insurance Date	September 2020
Amount	EUR 1.85 billion
Tenor	8 years (matures in 2028)
Coupon yield	Priced at 0.08%
Underwriters	Joint bookrunners: Barclays, HSBC, J.P. Morgan and Societe Generale
Standards used	Sustainability-Linked Bond Principles, administered by ICMA
External review	Sustainalytics
Other information	Healthcare industry's first sustainability-linked bond

Sustainability-linked bond framework

Selection of KPIs

I. No of patients reached annually across low and middle income countries with Strategic innovative therapies (SIT)

II. No of patients reached annually across low and middle income countries through Novartis' Global Health Flagship Programs

Calibration of SPT

Increase of 200% by 2025 reaching 1.6 million patients*

Increase of 50% by 2025 reaching 22.60 million patients*

Bond Characteristics

The coupon will step-up by 25bps if Novartis fails to achieve the SPT target.

Source: "Second-Party Opinion Novaris Sustainability-Linked Notes' report", Sustainalytics , September 2020.
*Notes: According to 2025 Patient Access Targets, using 2019 baseline

Reporting

The company's KPI performance against the underlying SPT target is published on an annual basis in the Annual Society ESG Report.

Verification

As committed by Novartis, performance of KPIs will be verified by external verifiers for each fiscal year end, from 31 December 2020 to 31 December 2025

Case studies of sustainability-linked bonds

Schneider Electric

Schneider is a multinational company providing energy and automation digital products for efficiency and sustainability. It addresses buildings, homes, infrastructure and industries and data centers, by combining energy technologies, software, real-time automation and services.

Bond summary	
Country	France
Insurance Date	November 2020
Amount	EUR 650 million
Tenor	5 years 7 months (15 June 2026)
Coupon yield	0%, the interest rate is linked to three KPIs
Underwriters	BNP Paribas
Standards used	Sustainability-Linked Bond Principles
External review	Vigeo Eiris

Sustainability-linked bond framework

Selection of KPIs

- Saved and avoided CO_2 emissions to customers
- Gender diversity from hiring to front-line managers and leadership teams
- Number of underprivileged people trained in energy management

Calibration of SPT*

- 800 megatons saved and avoided CO_2 emissions to customers
- 50% women hiring, 40% women among front-line managers and 30% women in leadership teams
- 1 million people

Bond Characteristics

If target is not achieved by 31 December 2025, Schneider will pay each bond an amount equal to 0.50% of their nominal unit value ("premium payment amount")

Source: "Sustainability-Linked Financing Framework", Schneider, https://www.se.com/ww/en/assets/564/document/174194/schneider-electric-sustainability-linked-financing-framework.pdf, accessed on 15 April 2021

*Schneider commits to achieve at least 85% of the target above for each KPIs in average

Reporting

Reporting will be reported as part of Schneider sustainability impact on annual basis. The report will include information on performance of each KPI, verification assurance report relative to each KPI outlining their performance against each SPT and any additional relevant information

Verification

The score of each KPIs against SPTs will be externally verified by EY on an annual basis.

Case studies of gender bonds

Bank of Ayudhya

The Bank of Ayudhya, also known as "Krungsri", was established in 1945 and is one of Thailand's largest banks. Providing a wide range of financial services in banking, consumer finance, investment, asset management to individuals, SMEs and large corporations, it operates 698 branches nationwide. This is the first private-sector gender social bond in Asia-Pacific, and Thailand's first social bond.

Bond summary	
Country	Thailand
Insurance Date	August 2019
Amount	USD 220 million
Tenor	7 years (2026)
Coupon yield	Floating interest indexed to six-month USD LIBOR plus 1.015 percent
Underwriters	MUFG Securities Asia Limited
Investors	International Finance Corporation – 68%, Deutsche Investitions und Entwicklungsgesellschaft (DEG) – 32%
Standards used	Social Bond Principles, ASEAN Social Bond Standards
External review	Second party opinion by Sustainalytics

Social bond framework

Use of proceeds

Proceeds will be used in alignment with the Social Bond Principles, and eligible categories include (i) generating employment through microfinance for women and financing for women-owned SMEs; (ii) socio-economic advancement and empowerment through providing financing for low-income and disadvantaged female groups. The framework also excludes a number of activities such as production or trade in weapons, alcoholic beverages, tobacco, etc.

Process for project evaluation and selection

Krungsri's Women Bond Sub Committee, which consists of representatives from Global Markets Department, Risk Department, Retail and Consumer Banking Department, and Finance Department under the CFO Office, will oversee the project evaluation and selection process. After the initial assessment of eligible assets by SME Banking and Retail & Consumer Banking Divisions, the evaluation and selection of shortlisted assets will be conducted by the Krungsri's Women Bond Sub-Committee based on the eligibility criteria.

Source: "Krungsri Women Bond Framework", Sustainalytics, https://www.krungsri.com/bank/getmedia/c1283b73-0e9a-4547-b26e-ba2ec1a0eee7/krungsri-second-party-opinion.aspx, accessed on 29 October 2020.

SUSTAINABLE BOND ISSUANCE GUIDE

Management of proceeds

Proceeds will be managed on a quarterly basis by Krungsri's Strategic Assets and Liabilities Management Department. Net proceeds will be deposited into Krungsri's liquidity management account and earmarked for allocation to eligible assets. Unallocated funds will be invested in short-term money market investments and government bonds.

Reporting

Annual reports will be published on Krungsri's website. Allocation reporting will consist of information on the total amount of allocated and unallocated proceeds and total number of projects financed. Impact reporting will include information on the year-on-year percentage change in the aggregate value of facilities to women that meet the aforementioned eligibility criteria and number of clients that meet the eligibility criteria.

2019/20 Allocation and impact report

The allocation and impact report, published on Krungsri's website includes information on the amount that has been allocated, the projects and impacts.

As of end December 2019, the first amount of proceeds from the social bond was allocated in accordance to Krungsri's framework.

Business Banking (SME-BB) loans in 2019

THB 39,677 million
SME loan outstanding

THB 16,306 million
New loans booked

84,909
Employees

Krungsri Women SME Bond

THB 19,016 million
Loans Outstanding-WSME bond

THB 7,558 million
New loans booked

20,700
Employees

Source: "Krungsri Women SME Bond", Krungsri, https://www.krungsri.com/en/investor-relations/sustainable-finance/gender-bond, accessed on 29 October 2020.

Case studies of gender bonds

QBE Insurance Group's Gender Equality bond

QBE Insurance Group is a general insurance and reinsurance company, offering commercial, personal and specialty products and risk management solutions to customers. QBE is listed on the Australian Securities Exchange (ASX) and headquartered in Sydney, Australia, employing more than 11,700 people in over 27 countries.

Bond summary	
Country	Australia
Insurance Date	November 2017
Amount	USD 400 million, issued in a G3 currency—US dollars, Euro and Yen
Tenor	Perpetual bond, callable after 7.5 years
Coupon yield	5.25%
Investors	Various institutional investors mainly from Asia (51%), but also from Europe and Middle East (37%) and US (12%)
Standards used	Social Bond Principles
External review	Sustainalytics

Gender bond framework

Use of proceeds

Finance or refinance investments in qualifying bonds rated based on gender equality in leadership criteria. Funds raised are invested in bonds issued by companies that have policies of supporting workplace gender equality.

Process for project evaluation and selection

Each bond from an eligible company which is earmarked to support the Gender Equality Bond is presented by the "Portfolio Manager, Impact and Responsible Investment" to the QBE Gender Equality Bond Committee, who makes the final decision on investment. The committee consist of QBE Group Non-Executive Director, the QBE Group Treasurer, the QBE Group Head of Diversity and Inclusion and the QBE Group Chief Investment Officer.

Management of proceeds

QBE tracks the Use of Proceeds of any Gender Equality Bond(s) via its internal information systems. Each QBE Gender Equality Bond will be booked under an earmarked position which is set up for each Gender Equality Bond specifically in the appropriate internal system.

Source: "QBE Gender Equality Bond Framework 2018", QBE, https://www.qbe.com/investor-relations/debt-investor-centre/debt-investor-centre/social-bonds, accessed on 29 October 2020

Reporting

The annual reporting will include the following points:

- The cost of the investment(s)
- Aggregate amounts of funds allocated to each of the Eligibility Criteria together with a description of the types of projects being financed / refinanced;
- The remaining balance of any unallocated Gender Equality Bond proceeds at the reporting period end
- Confirmation that the Use of Proceeds of any Gender Equality Bond (s) issued conforms with the QBE Gender Equality Bond Framework

2019 Annual Progress Report

The report contains information on the allocation of proceeds and impact indicators

Gender bond portfolio	Description	Gender indicators	Amount allocated
Australia and New Zealand Banking Group	ANZ is an Australian multinational banking and financial services company headquartered in Melbourne, Australia. It is the second largest bank by assets and third largest bank by market capitalisation in Australia	• 37.5% women on the board • 32.5% women in management • Equileap ranking: 63 • Equileap score: 60	USD 232.8 million
Commonwealth Bank of Australia	CBA is an Australian multinational bank with businesses across New Zealand, Asia, the United States and the United Kingdom.	• 50% women on the board • 45% women in management • Equileap ranking: 40 • Equileap score: 63	USD 70.7 million
Westpac	Westpac Banking Corporation is an Australian bank and financial services provider headquartered in Sydney, Australia.	• 36% women on the board • 50% women in management • Equileap ranking: 13 • Equileap score: 68	USD 139.7 million
Total			**USD 443.2 million**

Note: Equileap 1 is a global leader in researching gender balance and gender equality in public companies. The ranking orders the Top 100 companies and gives them an overall grade based on how well they scored against various data points

Source: "2019 Gender Equality Bond Progress Report", QBE, https://www.qbe.com/-/media/group/debt%20investor%20documents/social%20bonds/gender%20bonds/2019%20gender%20equality%20bond%20progress%20report.pdf, accessed on 29 October 2020

SUSTAINABLE BOND ISSUANCE GUIDE

ANNEX D

SAMPLE DOCUMENTS FOR PRE- AND POST-ISSUANCE ASSURANCE

The following are sample documents for pre-issuance assurance:

General overview and sustainability governance

- Draft copy of issuer's Sustainable Bond Framework
- Summary of the issuer's bond size and tenor of bond, place of issuance etc.
- Terms of Reference and structure of issuer's Sustainability Bond Committee
- Summary of issuer's green or sustainability objectives, strategy, initiatives and targets, on which the assurer will base the assurance on the framework on

Use of proceeds

- Proposed list of eligible project(s) or asset (s) including description of project(s) or asset(s) broken down to respective eligible categories, proposed amount allocated and relevant supporting documents from issuer to show eligibility criteria has been met or fulfilled

Process for project evaluation and selection

- Minutes of meetings or email exchanges between relevant departments on projects selected including assessment against eligibility criteria as stated in the issuer's Sustainable Bond Framework
- Asset register including list of eligible project(s) or asset(s) that are aligned to the Framework
- Relevant environment, health and safety policies used to identify and manage potentially material environmental and social risks associated with the projects (if available)

Management of proceeds

- Documentation and policies on on-going monitoring of bond proceeds internal procedures
- Cash Investment Policy for use of unallocated proceeds (if applicable)

Reporting

- Draft of 1st issuer's Sustainable Bond Impact and Allocation Report (if available)
- Relevant calculation excel for impact reporting, including calculation methodologies and assumptions made to arrive at environmental impact performance (if available)

The following are sample documents for post-issuance assurance:

General overview and sustainability governance

- Issuer's Sustainable Bond Framework
- Summary of the issuer bond to be reported in the 1st Impact and Allocation Report – size and tenor of bond, place of issuance, date of issuance, etc.
- Terms of Reference and structure of issuer's Sustainable Bond Committee

Use of proceeds

- List of selected project(s) or asset (s) including description of project(s) or asset(s) broken down to respective eligible categories according to the bond standard used, amount allocated or to be allocated and relevant supporting documents from issuer to show eligibility criteria has been met or fulfilled

Process for project evaluation and selection

- Minutes of meetings or email exchanges between relevant departments on projects selected including assessment against eligibility criteria as stated in issuer's Sustainable Bond Framework
- Asset register, including list of eligible project(s) or asset(s) that are aligned to the Framework
- Relevant environment, health and safety policies used to identify and manage potentially material environmental and social risks associated with the projects (if available)

Management of proceeds

- Documentation and policies on on-going monitoring of bond proceeds internal procedures
- Cash Investment Policy for use of unallocated proceeds (if applicable)

Reporting

- Draft of 1st issuer's Sustainable Bond Impact and Allocation Report
- Relevant calculation excel for impact reporting, including calculation methodologies and assumptions made to arrive at environmental impact performance (if available)
- Any relevant evidence to support that the issuer's Sustainable Bond is in compliance with the reporting criteria

ANNEX E

GENDER INDICES AND RANKINGS

Gender indices and rankings	Description
Bloomberg Gender-Equality Index	The Bloomberg Gender-Equality Index tracks the financial performance of public companies committed to disclosing their efforts to support gender equality through policy development, representation and transparency.
Equileap Gender Equality Data and Ranking	It is a comprehensive set of ratings and raw data points that covers a variety of gender equality metrics. The database covers all main developed markets, including the MSCI World, Russell 1000, S&P 500 and STOXX 600 indices. It has assessed 3,500 companies in 23 countries.
World Economic Forum Global Gender Gap Index	Global Gender Gap Index measures the extent of gender-based gaps in countries among four key dimensions: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment. It benchmarks 153 countries and provides country rankings that allow for effective comparisons across and within regional peers.
Impax Global Women's Leadership Index	The Impax Global Women's Leadership Index is a broad-market index of the highest-rated companies in the world for advancing women's leadership, as rated by Impax Gender Analytics, and that meet threshold environmental, social and governance standards.

Source: Bloomberg and Equileap website;" Global Gender Gap Report 2020", World Economic Forum, 2020;

"Impax Global Women's Leadership Index", Impax Asset Management, https://impaxam.com/assets/pdfs/pax-ellevate-fund/index-fact-sheet.pdf?pwm=5187, accessed on 12 April 2021

Glossary

Term	Fullform
ACMF	ASEAN Capital Markets Forum
AFMGM	ASEAN Finance Ministers' and Central Bank Governors' Meeting
Allocated bond	Where the proceeds from the bond will be spent in full to specific and pre-identified projects
ANZ	Australian and New Zealand Banking Group
ASEAN	Association of Southeast Asian Nations
ASEAN GBS	ASEAN Green Bond Standards
ASX	Australian Securities Exchange
AUM	Assets Under Management
AXA	AXA Investment Managers
BAAC	Bank for Agriculture and Agricultural Cooperatives
BELS	Building-Energy-efficiency Labeling System
BPS	Basis points
BRI	PT Bank Rakyat Indonesia (Persero) Tbk
BTSG	BTS Group
CAFC	Climate Action Finance Committee
CAFF	Climate Action Finance Framework
CAFT	Customer Automated Funds Transfer
CAPCO	Castle Peak Power Company Limited
CASBEE	Comprehensive Assessment System for Built Environment Efficiency
CBA	Commonwealth Bank of Australia
CBI	Climate Bonds Initiative
CBS	Climate Bond Standard
CGD	Comptroller General Department
CHP	Combined Heat and Power
CIBC	Canadian Imperial Bank of Commerce
CLP Power	CLP Power Hong Kong Limited
CO_2	Carbon Dioxide
COP21	Conference of the Parties (21st meeting)
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ESG	Environmental, Social and Governance
ESIA	Environment and Social Impact Assessment
CCGT	Combined Cycle Gas Turbine
FIs	Financial Institutions
FPO	Fiscal Policy Office
GBA	Gross Building Area
GBP	Green Bond Principles

Term	Fullform
GDP	Gross Domestic Product
GFL	Green Finance for Latin America and the Caribbean
GHG	Greenhouse Gases
GJ	Gigajoules
GW	Gigawatt
GWh	Gigawatt hours
HSBC	The Hong Kong and Shanghai Banking Corporation
ICMA	International Capital Market Association
ICT	Information and Communication Technology
IDR	Industrial Development Revenue
IE	Impact enterprises
ISIN	International Securities Identification Number
KG	Kilogram
KM	Kilometer
KPIs	Key Performance Indicators
KUR	The Kredit Usaha Rakyat
kWh	Kilowatt hours
LCEP	Low Carbon Energy Programme
LEED	Leadership in Energy and Environmental Design
LMA	Loan Market Association
M&A	Mergers and Acquisitions
m^2	Square meter
m^3	Cubic meter
MRT	Mass Rail Transit
MSMEs	Micro, small and medium enterprises
MW	Megawatt
MWh	Megawatt Hours
NHA	National Housing Authority
NOx	Nitrogen Oxides
OCC	Office of the Comptroller of the Currency
PDMO	The Public Debt Management Office
PISA-test	Programme for International Student Assessment
QBE	QBE Insurance Group Limited
RE	Renewable Energy
RSP	Respirable Suspended Particulates
SBC	A dedicated cross-departmental sustainability bond committee
SBP	Social Bond Principles
SBS	Social Bond Standards
SBWG	Sustainable Bond Working Group
SDGs	Sustainable Development Goals

SUSTAINABLE BOND ISSUANCE GUIDE

Term	Fullform
SEC	Securities and Exchange Commission Thailand
SIT	"Strategic Innovative Therapies" are defined as non-generic therapies commercialized by Novartis' "Innovative Medicines" division and approved by a competent member of the Executive Committee of Novartis based on factors including, but not limited to: (i) patient impact, e.g. the treatment addresses a significant global disease burden, (ii) commercial viability, e.g. the treatments represents a sustainable commercial opportunity, and (iii) innovative standing, e.g. the treatment is either comparable or exceeds the existing standard of care
SLB	Sustainability-Linked bonds
SLBP	Sustainability-Linked Bond Principles
SLN	Sustainability-Linked notes
SMEs	Small and Medium-sized Enterprises
SO_2	Sulfur Dioxide
SPO	Second Party Opinion
SPTs	Sustainability Performance Targets
SRI	Socially Responsible Investment
SBWG	Sustainable Bond Working Group
tCO_2e	Metric ton of carbon dioxide equivalent
TJ	Terajoules
Unallocated bond	Where the proceeds from the bond will be spent within a defined timeframe to fund a range of projects or assets that are not necessarily all identified at the time of issuance, with the process to select eligible projects outlined in the bond framework
UNOPS	United Nations Office for Project Services

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