

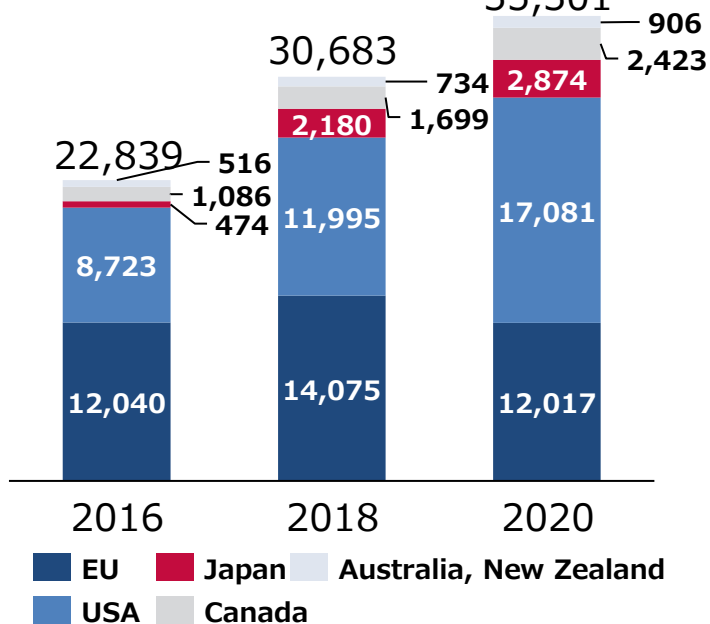
A way to steadily achieve carbon neutrality

October 5, 2021
Industrial Science and Technology
Policy and Environment Bureau

Trends in Sustainable Finance

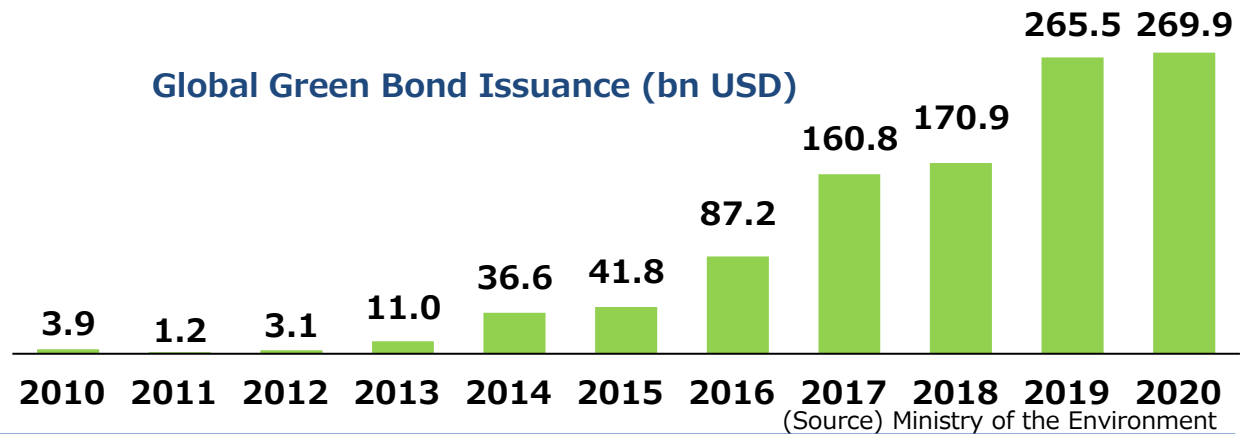
- Enormous investments are required to reduce CO2 worldwide toward the realization of the Paris Agreement. In addition to direct support from governments, the role of sustainable finance is important. With growing interests in ESG investment, total investment increased to \$35.3 trillion in 2020.
- Green bond issuance related to climate change has increased to \$269.9 billion. Currently, the use of proceeds are mainly in the energy and construction fields; the issuance in the industry sector with high CO2 emissions is still small.
- **Finance is an important policy issue for climate change countermeasures in various fields towards the realization of the 2050 Carbon Neutral Declaration.**

Trends of Sustainability Investment
(bn USD)

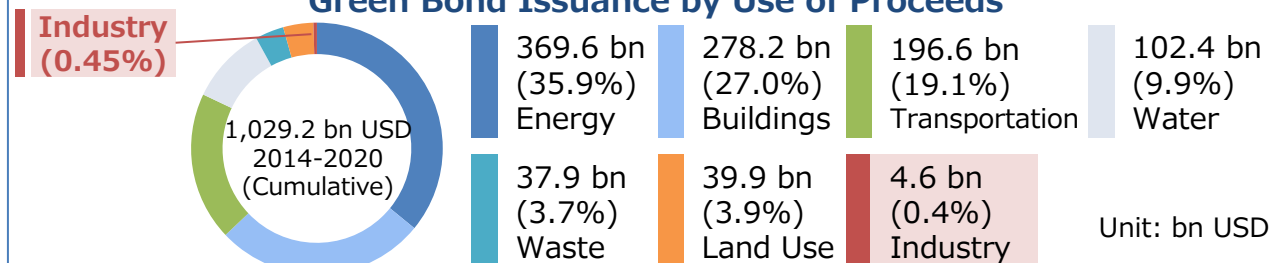


(Source) Global Sustainable Investment Alliance 2020

Global Green Bond Issuance (bn USD)



Green Bond Issuance by Use of Proceeds

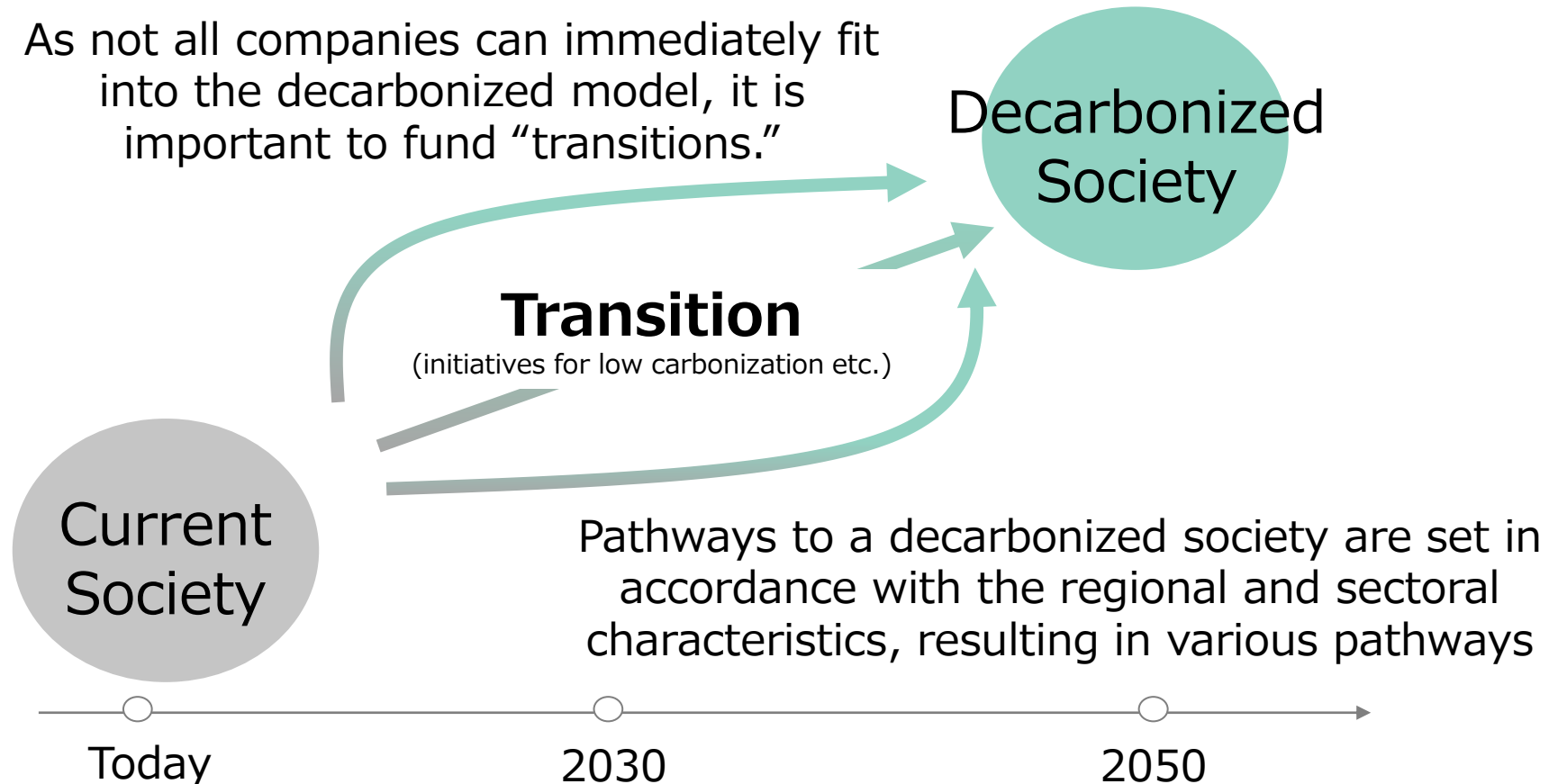


(Source) Climate Bond Initiative Database

The Importance of Climate Transition Finance

- In order to realize the Paris Agreement, in addition to “green” initiatives such as renewable energy, it is also necessary to think of “transitions” that will steadily realize low carbonization.
- As not all industries are able to instantly begin operating in a decarbonized manner, it is essential to fund “transition” efforts to steadily reduce CO2 by energy conservation and the use of lower emission energy.

As not all companies can immediately fit into the decarbonized model, it is important to fund “transitions.”



Overview of Policies in Climate Transition Finance

- The Government of Japan is focused on “transitions” including energy conservation and the use of lower emission energy to achieve decarbonization and is promoting “transition finance” to encourage funding “transitions.”
- In line with the Climate Transition Finance Handbook published by ICMA (International Capital Market Association) in Dec. 2020, the Financial Services Agency, Ministry of the Environment, and Ministry of Economy, Trade and Industry (METI) formulated the Basic Guidelines on Climate Transition Finance in labelling as “transition bonds” and “transition loans” in May 2021.
- In addition, as a reference for evaluating the eligibility of transitions, METI is formulating field-specific roadmaps for high CO₂-emitting industries with the goal of 2050 carbon neutrality.



Sector-specific roadmaps to indicate the pathway toward decarbonization for high-emission industries are under development

Basic Guidelines on Climate Transition Finance

- “Basic Guidelines” is a guide summarizing basic ideas that should be considered in labeling as transition finance.
- The Guidelines clarify that the “transition strategy” of the entire company for decarbonization is important in transition finance, not just focusing on the eligibility of the use of proceeds for transition.
- In addition, the Guidelines point out the need to show that a pathway to decarbonization is science-based.

Key points

- Comprehensive decision on a “transition strategy” of a company for decarbonization and reliability and transparency in implementation of such strategy.
- It is necessary to show that the transition strategy is science-based.
- In addition to scenarios widely recognized in the international community, including those by IEA, the Guidelines refer to NDCs of each country and sector-specific roadmaps that are aligned with the Paris Agreement.

Element

1

**Strategy and
Governance**



Element

2

Materiality



Element

3

**Science-based
Strategies**



Element

4

Transparency

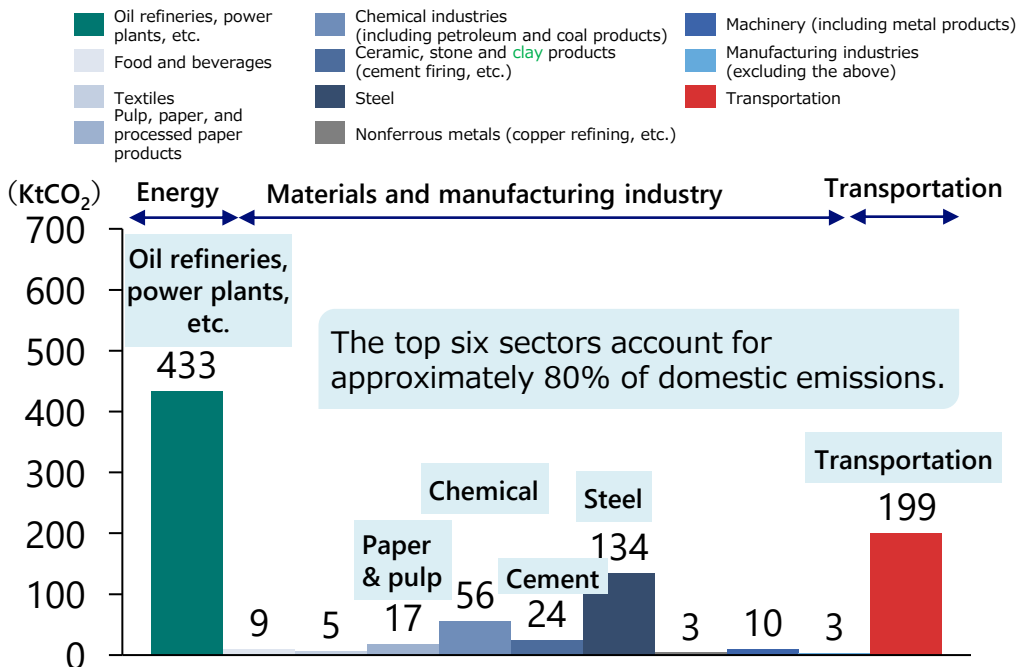


Roadmaps –Selection of Targeted Sectors

- The targeted sectors for roadmaps are selected because (1) they are industries with high CO₂ emissions, and (2) alternative methods to achieve zero CO₂ emissions are not technically and economically available today and thus there is a high importance of transition etc.
- In this fiscal year, METI will formulate roadmaps in 7 sectors: steel, chemicals, cement, paper and pulp, electricity, gas, and petroleum.

CO₂ Emissions by Domestic Sector

(Before Distribution) (FY2019 Preliminary Data)



Source: Based on the data from Greenhouse Gas Inventory Office of the National Institute for Environmental Studies
(Greenhouse Gas Emissions Data for Japan (FY1990-2019), Greenhouse Gas Inventory Office, National Institute for Environmental Studies)

*Tertiary industries, households, and emissions not originating from energy sources are not included.

Sectors where roadmaps may be needed due to high emissions

Energy

Electricity

Gas

Petroleum

Materials

Steel

Cement

Chemical

Paper & pulp

Transportation

Automobiles

Ships*

Aviation*

*Under the jurisdiction of the Ministry of Land, Infrastructure, Transport and Tourism (roadmap for shipping has been formulated)



Consider the interests of businesses

Scope of each field is considered based on the utilization needs of businesses etc.

Positioning of Sector-specific Roadmaps

- Sector-specific roadmaps are positioned as an Annex to the Basic Guidelines as a reference for evaluating the eligibility of a company' transition strategy.
- Specifically, we plan to present an emission trajectory with a technology roadmap for the realization of carbon neutrality by 2050.
- Currently, a technology roadmap for steel is being formulated.

<Policies for Formulating Sector-specific Roadmaps >

Item	Summary
Objective	<ul style="list-style-type: none">• Fundraisers - To serve as references in formulating transition strategies for corporations who are considering transition financing.• Financial institutions, etc. - To serve as resources when evaluating the eligibility of fundraisers' efforts and strategies.
Premises	<ul style="list-style-type: none">• <u>Contribute to the enhancement of Japan's industrial policies and global competitiveness</u> by aligning with NDCs, long-term strategies, the Green Growth Strategy, the Energy Master Plan, R&D and public implementation plan at the Green Innovation Fund, and other various policies.
Content	<ul style="list-style-type: none">• Vision of realizing carbon neutrality by 2050 in line with the Paris Agreement (decarbonization in each field)• Technology roadmaps (technology overview and options) *, etc.
Notes	<ul style="list-style-type: none">• In a precise sense, sector-specific roadmaps will be a roadmaps of a industry group. If corporations change their current business or add a new business, they can refer to the sector which the corporations started.• <u>Present various options based on the regional and industrial characteristics of Japan and the information available at this time, since there are uncertainties regarding the development trends of new technologies, environmental friendliness, economic efficiency, etc.</u>

* In formulating the technology roadmap, also refer to internationally recognized scenarios/roadmaps that are science-based and aligned with the Paris Agreement.

Formulation of Roadmaps and Model Projects

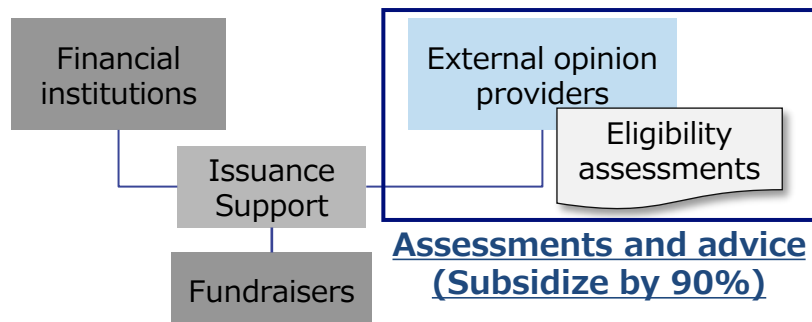
- To promote transition finance, METI certifies projects that meet the Basic Guidelines and roadmaps as model projects.
- In addition, for certified model projects, the cost for the third party assessments will be subsidized at the maximum of 90%.

Model Project Overview

Transition Finance Model Projects (started in June)

- Support for accumulating case studies and reducing additional funding costs to promote transition finance

- ① Applications for finance case studies that are aligned with the Basic Guidelines, creation and collection of good practices, and compilation of case studies
- ② Subsidize 90% of cost for external opinion providers for model cases



Development of Roadmaps

Committee for the Development of Roadmaps to Promote Transition Finance in the area of Economy, Trade and Industry (started in August)

- The committee, which formulates roadmaps, is held at METI
- Participation of technology and environmental experts and industry representatives
- Seven sectors: steel, chemical, cement, paper and pulp, electricity, gas, and petroleum



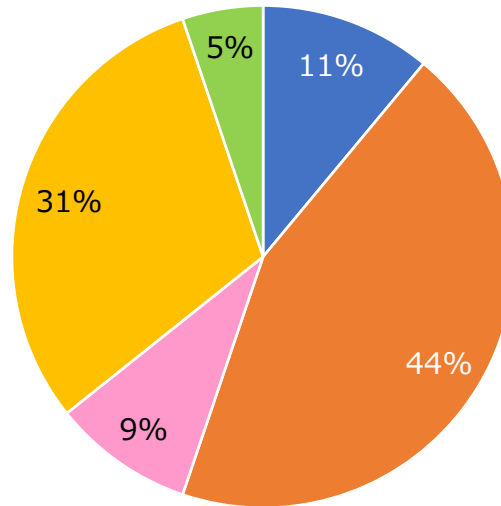
Confirm compatibility and modelability based on the roadmaps

Corporate Interests in Transition Finance

–TCFD Consortium Questionnaire 2021–

- According to a questionnaire to companies (non-financial institutions), **more than half of the companies** answered that they were "interested in transition finance", which indicates a **high level of interest**. The responding companies that are interested mainly belong to high-emission industries.
- There is a growing trend toward transition finance to support companies moving toward decarbonization. What is your company's view on transition finance? (select one)

Non-financial institutions (154 respondents)



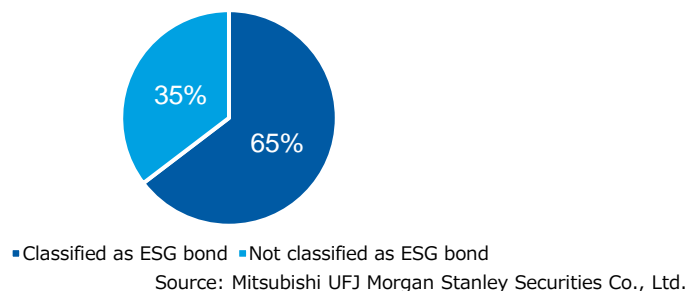
- a. No particular interest
- b. Interested and would consider in the future
- c. Interested and specifically considered
- d. Insufficient information to make judgment
- e. Other

Trends in Transition Finance of Financial Institutions

- Approximately 70% of central and local investors in Japan evaluate transition bonds as targets for ESG investment.
- METI has already certified 3 projects as model projects. Model project No. 1 was the first transition bond issue in Japan, which had **10-fold oversubscription**, proving its attractiveness to the market.

■ ESG applicability of Transition Bond

Central investors + Local investors (n=99)



■ Arrangement of Transition Bond

Model Project No. 1 Nippon Yusen Kabushiki Kaisha Transition Bond

Issue amount	20 billion yen (periods of 5 and 10 years)
Issue date	July 2021
Arranger	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

■ Arrangement of Transition Loan





Model Project No. 2 Mitsui O.S.K. Line Ltd. Transition Loan

Arrangement date	September 2021 (Loan amount is not disclosed)
Arrangers	Development Bank of Japan Inc., Sumitomo Mitsui Trust Bank, Limited, and Sumitomo Mitsui Banking Corporation

Model Project No. 3 Kawasaki Kisen Kaisha, Ltd. Transition Linked Loan

Loan amount	Approximately 110 billion yen
Arrangement date	September 2021
Arranger	Mizuho Bank Ltd.

[Reference] Financial support measures by METI

	Budget	Aimed at	Applicable to	Overview	Objectives/targets
Climate Innovation Finance Promotion Scheme 	300 million yen (New)	Promoting finance by developing new financial products	Industries with high GHG emissions	<ul style="list-style-type: none"> Public offering of model cases, evaluation of eligibility for transition finance (supporting 90% of evaluation costs), information dissemination, etc. Creating a roadmap by industry 	Establishing 30 transition issuance schemes by FY 2023
Interest subsidy scheme to promote transitions to the carbon neutrality 	200 million yen (New)	Realization of long-term business plan	Businesses with ambitious goals for carbon neutrality AND with certified (*1) long-term business plan of 10 years or more	<ul style="list-style-type: none"> Interest subsidy system for loans provided by designated financial institutions 	Support for loan of 200 billion yen in total in FY 2021 (1 trillion yen in 3 years)
Compensation scheme to promote introduction of advanced low-carbon equipment 	3.76 billion yen	Promoting investment in advanced, low-carbon equipment	Operating lease with a large effect of inducing capital investment	<ul style="list-style-type: none"> Government supplements asset risks that are difficult for leasing companies to take on their own 	Inducing advanced low-carbon capital investment of 150 billion yen or more
Green Innovation Fund 	2.0 trillion yen	Dissemination of new innovative technologies	Businesses that show commitment to the target with a specific period	<ul style="list-style-type: none"> 10 years of support for the ambitious R&D 	<ul style="list-style-type: none"> Inducing R&D and capital investment by private companies Achieving a virtuous cycle of economy and environment by attracting global ESG funds to domestic businesses

	Period	Aimed at	Applicable to	Overview
Investment promotion tax system for carbon neutrality	End of FY 2023	Accelerating investment in decarbonization by private companies	<ul style="list-style-type: none"> Production equipment for products with a large decarbonization effect Equipment that achieves both decarbonization of production processes and increased added value 	Up to 10% tax credit or 50% special depreciation will be newly applied to the introduction of equipment (* 2)

* 1 A new certification system will be established under the Industrial Competitiveness Enhancement Act.

* 2 The maximum investment amount is 50 billion yen. The deduction amount is up to 20% of corporate tax in total with the DX investment promotion tax system.