

# Climate Change

## Policy Responses to Climate Change-Related Matters

Policy

In addition to responding to climate change through initiatives such as the Sustainable Development Goals (SDGs) and ratification of the Paris Agreement at the United Nations, the response of companies to the recent increase in frequency and severity of natural disasters has also become an urgent challenge for the sustainability of society.

Based on our Materiality—“Secure sustainable supply of essential products”, “Enhance quality of life” and “Create an eco-friendly society”—Mitsui & Co. contributes to the development of economies and societies in many countries and regions around the world, as well as to the provision of solutions to global challenges such as climate change. We believe that pursuing a balanced approach to both of these objectives from a long-term perspective through our global and wide-ranging business activities will indeed constitute a sustainable growth strategy for our company.

In December 2018, Mitsui declared its support for the Task Force on Climate-related Financial Disclosures (TCFD). We will continue to seek ways of actively disclosing information in accordance with the recommendations of the TCFD.

## Governance System for Climate Change Response

System

Mitsui regards responding to climate change as one of our most important management challenges. Our response is deliberated upon and decided by the Sustainability Committee, an organization under the control of the Corporate Management Committee. The content of these deliberations is reported regularly to the Corporate Management Committee and the Board of Directors and utilized for promoting sustainability management at Mitsui. Particularly important matters are debated and decided by both bodies. Climate change-related discussions were held a total of 28 times in the three-year period from the fiscal year ended March 2018 to the fiscal year ended March 2020.

### Major Climate Change-Related Topics Discussed/Reported at the Sustainability Committee over the Past Three Years

FY2018	FY2019	FY2020
<ul style="list-style-type: none"> <li>• Policy deliberations for coal-related business initiatives</li> <li>• Report on latest trends in climate change issues</li> <li>• Discussion on information disclosure policy for environment-related data</li> <li>• Deliberations on enhanced disclosures of non-financial information in consideration of the external environment</li> </ul>	<ul style="list-style-type: none"> <li>• Deliberations on enhanced disclosures of non-financial information</li> <li>• Discussion on reviewing the Materiality</li> <li>• Report on external environment in relation to climate change</li> <li>• Discussion on declaration of support for TCFD</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on climate change scenario analyses</li> <li>• Discussion on key priorities established in relation to sustainability</li> <li>• Discussion on the introduction of internal carbon pricing system</li> <li>• Discussion on establishment of GHG-related targets</li> </ul>

## Strategy and Risk Management for Climate Change Response

Policy

System

### Major risks and opportunities associated with climate change

Mitsui is engaged in a wide range of business in various countries and regions around the world, and we view the diverse risks and opportunities presented by climate change as important factors that we must take into account when formulating our business strategies. In each business field, we have identified the internal and external business environments and defined the risks and opportunities surrounding each business.

 Integrated Report 2020 (P.044 Principal Climate Change Risks and Opportunities)

 P.113 ESG-Related Risk Management

### Business impact assessments and countermeasures associated with transition risks

We have selected business fields considered to possess significant financial and non-financial impacts in related to transition risks\*, used multiple climate change scenarios to carry out impact assessments for each business, and investigated countermeasures based on the results.

### Business fields selected for scenario analyses in FY2020

We selected the following business fields in consideration of GHG emissions from the perspective of the whole supply chain:

- Oil and gas development business, and LNG business
- Coal business
- Thermal power generation business

### Selected scenarios

We have used the following scenarios taken from World Energy Outlook, which is published by the internationally recognized International Energy Agency (IEA):

- New Policies Scenario (NPS): scenario under which countries extend the current policies to 2040, based on greenhouse gas reduction plans submitted by each country to the United Nations
- Sustainable Development Scenario (SDS): scenarios needed to uphold the Paris Agreement, which seeks to keep global warming within 2.0°C of the pre-Industrial Revolution level

\* “Transition risks” refer to risks caused by changes in policy/legal regulations, technology development, market trends, market evaluation, etc.

**Analysis Results**

- Oil and gas development businesses and LNG businesses

Evaluation of the impact on existing businesses	Countermeasures
<p>With reference to short-term market levels and the outlooks of multiple third-party organizations, Brent Crude is expected to trend between \$30 and \$80 per barrel in the medium to long-term. Even under the SDS, which is a more conservative scenario than the NPS, the Company's highly cost-competitive assets are expected to maintain their advantages to a certain extent.</p>	<p>While facing the dual challenges of the need to realize increased volume and improved quality, renewable energy is expanding steadily. Meanwhile, fossil fuel will remain an indispensable energy source for the time being. We will strengthen the cost-competitiveness of new business projects while considering the carbon costs. At the same time, we will focus efforts on gas and LNG projects, which have comparatively low environmental burdens.</p>

- Coal businesses

Evaluation of the impact on existing businesses	Countermeasures
<p>The SDS is premised on further spread of the electric furnace method and on substitutes for coking coal being realized through innovative steel technologies, which have yet to be established. Ongoing verification of the possibility of realizing new steel technologies and of their impact is required.</p>	<p>We will pay close attention to trends in new technologies and to progress in relation to the Electrical Arc Furnace and the policies of respective countries. At the same time, over the medium-to-long term a steady increase in demand for high-quality coking coal centered on India and Southeast Asia is expected. While providing stable supplies to customers, we will strengthen our competitiveness.</p>

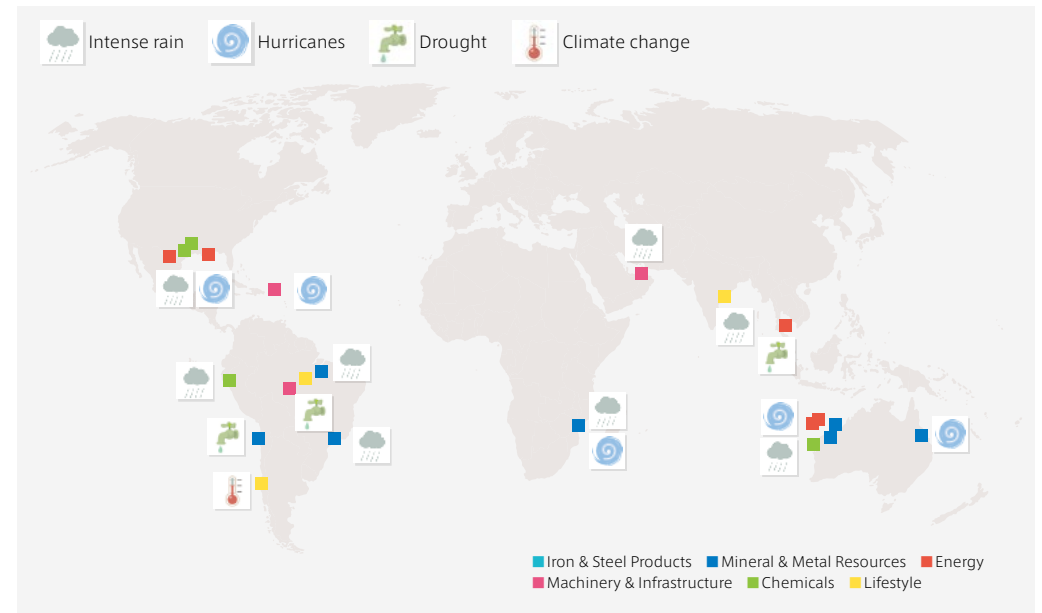
- Thermal power generation businesses

Evaluation of the impact on existing businesses	Countermeasures
<p>Even based on the SDS, the impact on existing businesses will be limited as businesses contracted under long-term power purchase agreements—in which a consideration is paid for generation capacity rather than for generation volume—account for the majority (96% as of March 31, 2020) of the Company's power generation business portfolio.</p>	<p>In stages, we intend to lower coal-fired thermal power as a percentage of our equity share of power generation capacity and increase the percentage of renewable energy, including hydropower, to 30% by 2030.</p>

**Major physical risks and countermeasures**

Under the NPS scenario, the physical risks\* would be relatively higher because the target agreed under the Paris agreement to keep global warming within 2.0°C of the pre-Industrial Revolution level would not be met. Mitsui has carried out a survey of the impact of physical risks over the past five years on important investment assets, as well as an analysis based on the RCP (Representative Concentration Pathway) used by the IPCC (Intergovernmental Panel on Climate Change).

\* "Physical risks" refer to the risk of physical damage caused by increases in natural disasters and abnormal weather arising from climate change.

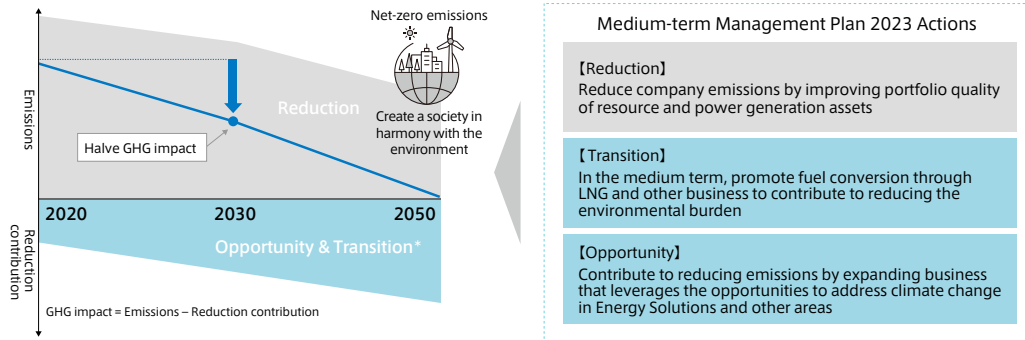


The major physical risks facing assets owned by Mitsui include the potential for localized storms, particularly strong tropical hurricanes and cyclones arising in the Atlantic and South Pacific, which could cause negative impacts on operations in our mineral and metal resources projects. Furthermore, in cases of severe damage to production plants or facilities or infrastructure, such as the roads, railways, and ports used for shipments, there is a risk that production or shipments could be suspended for long periods until these facilities are restored. On top of Mitsui's own investments, in cases when Mitsui suppliers suffered significant damage, there is the risk of the overall supply chain failing, including failures to receive supplies of raw materials. Mitsui implements measures such as taking out insurance coverage, establishing crisis management policies, and upgrading facilities as necessary. Furthermore, we are also considering the establishment of a system to assess whether each of these measures is the best possible risk mitigation measure.

## Aiming for Net-zero Emissions in 2050

Policy Activity

Mitsui has set out the goal of net-zero emissions as our Vision for 2050. By 2030, we aim to halve our GHG impact versus 2020 as the path to achieving the Vision.



\* For Transition, we only assume reduction contribution attributable to the company in the future

## Medium-Term Management Plan

GHG impact is calculated by deducting the Opportunity & Transition reduction contribution from our GHG emissions. The aim is to halve our GHG impact by 2030 compared to 2020.

In order to achieve this goal, we are promoting the following three measures – “Reduction,” “Transition,” and “Opportunity”.

## Introduction of Internal Carbon Pricing System

At Mitsui, we introduced the internal carbon pricing system in April 2020 in order to increase the medium to long-term resilience of businesses emitting large volumes of GHG, and to encourage the development of projects that are effective at reducing GHG emissions. Regarding new business projects, in projects with potential risks or opportunities from GHG regulations, etc., we have added analysis of the potential impact of a 2°C scenario to the project screening factors, as well as the reasonableness of countermeasures in the event these risks are realized. We will also use the internal carbon pricing system for assessing risks in existing projects.

## Enhancing GHG Emissions Disclosures

Mitsui has carried out GHG emissions surveys domestically since the fiscal year ended March 2006 and in overseas since the fiscal year ended March 2009. Until now we have disclosed Scope 1 and Scope 2 of GHG emissions under the GHG Protocol\* control standards. Since the fiscal year ended March 2020, we have disclosed Scope 3, Category 15 (indirect emissions associated with investments) that is estimated GHG emissions from i) energy, mineral and metal resources, and thermal power generation projects not included in Scope 1 and 2, and from ii) other affiliated company businesses. We have enhanced the scope of disclosures to promote continuous reviews of our portfolio considering our risk tolerance to climate change. This also takes into account Mitsui’s strategy of using our wide range of business activities to take on the challenge of new opportunities in an agile way.

In the fiscal year ended March 2020, our GHG emissions at the Head Office, all offices in Japan and subsidiaries were 0.75 million tons, whereas GHG emissions at un-incorporated joint ventures in mineral and metal and energy resources fields totaled 3.07 million tons. In total, our emissions came to 3.82 million tons. GHG emissions under Scope 3, Category 15 investments came to 32 million tons.

\* GHG Protocol is a GHG emissions calculation and reporting standard formulated through an initiative led by the WRI (World Resources Institute) and the WBCSD (World Business Council for Sustainable Development).

P.49 Environmental Performance Data

## Making Mitsui’s Electricity Use Carbon Neutral in All of Our Business Locations in Japan

As a specific measure aimed to achieve net-zero emissions in our Vision for 2050, since July 2020 Mitsui has made its electricity use carbon neutral at its Head Office and all business locations in Japan. Specifically, the electricity used at the Head Office to which we moved in May satisfied the RE 100 requirements\* (achieving 100% RE). Most of the electricity is procured from the Fukushima Natural Gas Power Plant (Shinchi Town, Soma, Fukushima Prefecture), in which Mitsui has invested. The electricity we use satisfies the RE100 requirements by applying renewable energy-derived credits created at a biomass plant of Mitsui’s affiliated company Konan Utility Co., Ltd. (“Konan Utility”) to the electricity used in the Head Office building. For the electricity used in other business locations in Japan, including all offices and training centers, we have applied credits created at Konan Utility and our company-owned forest, “Mitsui’s Forests”, allowing us to switch to practically zero-CO<sub>2</sub> electricity.

\* RE 100 is an international initiative that aims to encourage procurement of 100% renewable energy for the energy consumed in business activities. The RE 100 requirements define the electricity that can be recorded under the initiative as renewable energy, taking into account institutional differences among various countries.

**Environment-Related Business**

Policy

Our Medium-Term Management Plan and environmental policy call for action on climate change. Our business activities are directed toward both economic development and response to climate change; therefore we engage in renewable energy projects, modal shift projects, and the expansion of other business initiatives as well as diffusion of technology that contribute to the reduction of CO<sub>2</sub> emissions and improvement in energy consumption efficiency.

**Renewable Energy Projects**

Activity

We are developing our renewable energy business and expanding our capacity in this area as part of our electric power generation business. As of March 31, 2020, renewable energy, including hydroelectric power, accounted for approximately 14% of Mitsui's total power generating capacity of 11.1GW, and we are aiming to increase the share held by renewable energy to 30% by 2030.

Type	Country	Generation capacity (gross)
Centralized solar power generation	Japan	330MW
	Mexico	104MW
	Jordan	52MW
	Thailand	22MW
Distributed solar power generation	UAE	103MW
	India	32MW
	China	26MW
	Brazil	36MW
	U.S.	78MW
Solar thermal power generation	Spain	51MW
Wind power generation	Japan	69MW
	Australia	165MW
	Mexico	324MW
	Argentina	97MW
Biomass power generation	Japan	8MW
Run-of-river hydroelectric power generation	Brazil	3,750MW
	Spain	84MW
Hydropower generation	Laos	1,900MW
	Indonesia	10MW
Geothermal power generation	Japan	7MW



Bii Stinu Wind Project (Oaxaca, Mexico)



Solar Power Generation Business (Tottori Yonago Solar Park)

**Modal Shift**

Activity

In addition to the railway leasing business that we have been engaging in over many years, we have also been actively launching and operating various railway projects, thereby developing and improving social infrastructure while promoting modal shift to contribute to green logistics. Of the rail networks in whose operation Mitsui participate as of March 31, 2020, the freight railroad network has a total route length of 10,700 kilometers, and the passenger network has a total route length of 2,810 kilometers.

Main business	Country/Region	Project size
Freight wagon leasing business	U.S.	Four global bases (U.S., Brazil, Europe, Russia): approx. 15,300 Freight wagons, approx. 340 Locomotives
	Russia	
Freight wagon rental business	Brazil	
Locomotive leasing business	Europe	
Freight wagon transportation business	Brazil	Operating a railway network of approx. 10,700 km, and port terminals
Passenger railway transportation business	Rio de Janeiro suburban railway	Transportation record: Approx. 590,000 passengers per day (December 2019)
	Rio de Janeiro Light Rail Train	Transportation record: Approx. 110,000 passengers per day (December 2019)
	São Paulo metro line no. 4	Transportation record: Approx. 700,000 passengers per day (December 2019)
	East Anglia	Transportation record: Approx. 250,000 passengers per day (December 2019)
	West Midlands	Transportation record: Approx. 200,000 passengers per day (December 2019)
Car sharing business	Singapore	Fleet of cars: Approx. 230

**Reducing Power Consumption in an Office Building through BEMS-Based Power Use Visualization**

A building energy management system (BEMS) has been installed in the Bussan Building, a rental office building owned by Mitsui's subsidiary, Mitsui & Co. Real Estate, in Nishi-Shinbashi, Minato-ku, Tokyo. This system visualizes energy use and helps to reduce total and peak power consumption based on the obtained information, such as by preventing unnecessary operation of equipment and adjusting operating hours. In the fiscal year ended March 2020, these measures helped to reduce power consumption in the building by around 19% compared with the previous fiscal year.



The Bussan Building owned by Mitsui & Co. Real Estate

**Other Environment-Related Business**

Activity

**Reducing Energy Consumption through Optimized Operation and Management of Air Conditioning Systems in Commercial Buildings**

Through Air as a Service, Ltd. ("AaaS"), a company established by Mitsui and Daikin Airtechnology and Engineering Co., Ltd., we are offering a subscription-type service\* that provides users with comfortable, air-conditioned spaces for a fixed monthly subscription fee.

AaaS installs and owns air-conditioning equipment instead of the owners of facilities. It provides optimal management of its equipment in each facility by combining an IoT system capable of remotely monitoring the operational status of each air conditioner on a 24-hour, 365-day basis with technologies for analyzing data acquired through this system. The system visualizes the operational status of equipment and reduces energy usage and costs by eliminating unnecessary operation. This results in the reduction of power consumption by around 20% compared with levels before the introduction of the system. In addition, AaaS maximizes equipment life by reliably monitoring operating hours and loads and undertaking preventive maintenance. Mitsui will continue to work through AaaS to support the improvement of energy efficiency in office buildings and commercial facilities.

\* With a subscription-type service, the user acquires the right to use equipment instead of purchasing it outright and pays charges based on the period of use.

**Creation of comfortable interior environments in facilities**

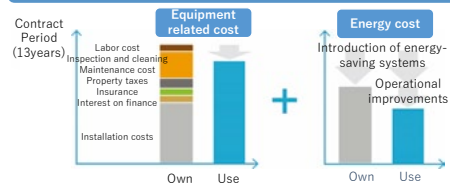


Equipment owned by AaaS

Simply using air conditioning functions without being required to carry out any troublesome maintenance and other operations

Image of service

**Life cycle cost reductions**



Lower life cycle costs compared with ownership by utilizing big data relating to air conditioning equipment

**Provision of Power Supply Optimization Capabilities Using a Stationary Energy Storage System Based on Electric Vehicle (EV) Batteries**

Mitsui, in partnership with Renault S.A.S ("Renault"), Fonds de Modernisation Ecologique des Transports (an infrastructure fund managed by Demeter Partners of France), and The Mobility House AG ("TMH"), has established a joint project company, Tokai 2 GmbH ("Tokai2"), with the aim of providing power supply optimization capabilities in Germany using a stationary energy storage system based on electric



Containerized Battery Storage

vehicle (EV) batteries. Tokai2 will develop a stationary storage system with a total power output of 20 MW by installing containerized Renault EV batteries at multiple sites. Tokai2 will provide frequency containment reserve services to the German power grid using battery management systems developed by TMH. The company aims to increase the number of battery installation sites so as to also provide services to power users and generators.

**Forest Carbon Sinks, Emissions Trading Business**

Mitsui has invested and participated in New Forests Pty Limited ("New Forests") of Australia, which has been engaging in the forestry asset management business in Oceania, Asia, and North America (forestry funds under management totaling approximately ¥380 billion and assets covering approximately 760,000 hectares). New Forests manages forest assets that store the equivalent of 130 million tons of carbon dioxide (tCO<sub>2</sub>e) and earned carbon credits amounting to 2.4 million tCO<sub>2</sub>e in 2019. Mitsui is committed to the supply of sustainable forest resources and will continue to contribute to the prevention of global warming through the forest fund business that creates forest carbon sinks and generates emission rights.



A forest plantation managed by New Forests in Australia

**Our Company-Owned Forests, "Mitsui's Forests," Absorb and Fixate 160,000 Tons of Carbon Dioxide Annually**

It is estimated that the carbon dioxide absorbed and fixated by Mitsui's Forests amounts to approximately 160,000 tons per year, and CO<sub>2</sub> accumulation has reached approximately 10 million tons\*<sup>1</sup>. We contribute to the mitigation of climate change risk through sustainable forest management. The public value of Mitsui's Forests is estimated to be approximately 200 billion yen\*<sup>2</sup>.



\*<sup>1</sup> This calculation is based on the Tier 2 approach in Chapter 4, "Forest Land," in Volume 4 of the "2019 Refinement to the 2006 IPCC Guidelines on National Greenhouse Gas Inventories." The calculation was based on the Tier 1 approach in the 2006 IPCC Guidelines in the past, but we changed the calculation method from the fiscal year ending March 31, 2021 in view of accuracy and refinement.  
\*<sup>2</sup> This calculation is based on "Comprehensive Assessment of Biodiversity and Ecosystem Services" published by the Ministry of Environment.

**Our Stories: Create an eco-friendly society**

P.25 **Creating Community-Based Biomass Power Generation Business for the Post-Carbon Society**

