

Sustainability

Reporting in Line with the TCFD Recommendations

In October 2018, Mitsubishi Chemical Group Corporation announced its support for the final recommendations prepared by the Task Force on Climate-related Financial Disclosures (TCFD)*.

The Mitsubishi Chemical Group is working to enhance its climate change-related measures in areas such as environmental impact reduction, driving energy-saving activities, promoting renewable energy use, and adding to the range of products that contribute to GHG emissions reduction. Through these measures and progressive enhancement of information disclosure, we are targeting increase in our corporate value.

* The TCFD is a body established by the Financial Stability Board in 2015. In June 2017, it announced the final recommendations concerning disclosure of information to encourage companies to voluntarily disclose to investors the impacts of climate change-related risks and business opportunities on corporate finances.

[📄 The report in line with the TCFD recommendations](#)

Governance

At MCG, we have identified GHG reduction, environmental impact reduction, and circular economy as the material issues (▶ Page 70) to be addressed in our medium-term management plan, *APTSIS 25*. In parallel, we have set management indicators and targets (▶ Page 79) to measure progress with these initiatives to mitigate and adapt to climate change. Monitoring of progress toward the target values takes place with the involvement of the MCG president and other members of the management team.

Director remuneration

The performance-based evaluation of the remuneration of corporate executive officers and executive officers is determined based on the degree of achievement of the targets for each fiscal year. In addition to economic benefit and capital efficiency, the evaluation considers indices relating to improvement in sustainability and other factors, including GHG emissions reduction. For detailed information, please see the Securities Report.

For reference:

Corporate Governance: Director remuneration (▶ Pages 58–61)

Strategy and risk management

Transition plan

In December 2021, MCG announced a new management policy entitled “Forging the future.” The policy includes a plan for the transition to carbon neutrality in line with the basic policy for the realization of carbon neutrality that had been announced in October of the same year.

The plan sets the new targets of a 29% reduction in GHG emissions by fiscal 2030 compared to fiscal 2019, and a further reduction to net zero in 2050 to achieve carbon neutrality. It also sets out a concrete roadmap. Going forward, our portfolio management will include a carbon-neutral perspective, which will enable us to remain competitive in a society that is in transition to carbon neutrality.

For reference:

New Management Policy, “Forging the future” (▶ Pages 23–29)

Business opportunities and risks from perceived social issues

In the formulation of its medium- to long-term basic management strategy KAITEKI Vision 30 (KV30), the MCG Group identified the business opportunities and risks arising from the challenges facing society in the period up to 2030. As part of this, KV30 gives a quantitative evaluation of the risks envisaged if the social issues are left unmanaged (▶ Page 78).

A climate change-related risk that we recognize as having a particularly large impact is a decrease in product demand and profitability due to factors such as an increased carbon tax burden and regulation of the usage of plastic products.

Meanwhile, to prepare for major natural disasters, in addition to taking steps to minimize damage and ensure business continuity, we will work to realize a safe and secure society by presenting solutions that contribute to disaster prevention and mitigation.

For reference:

Sustainability: Overview of material issues (▶ Page 70)

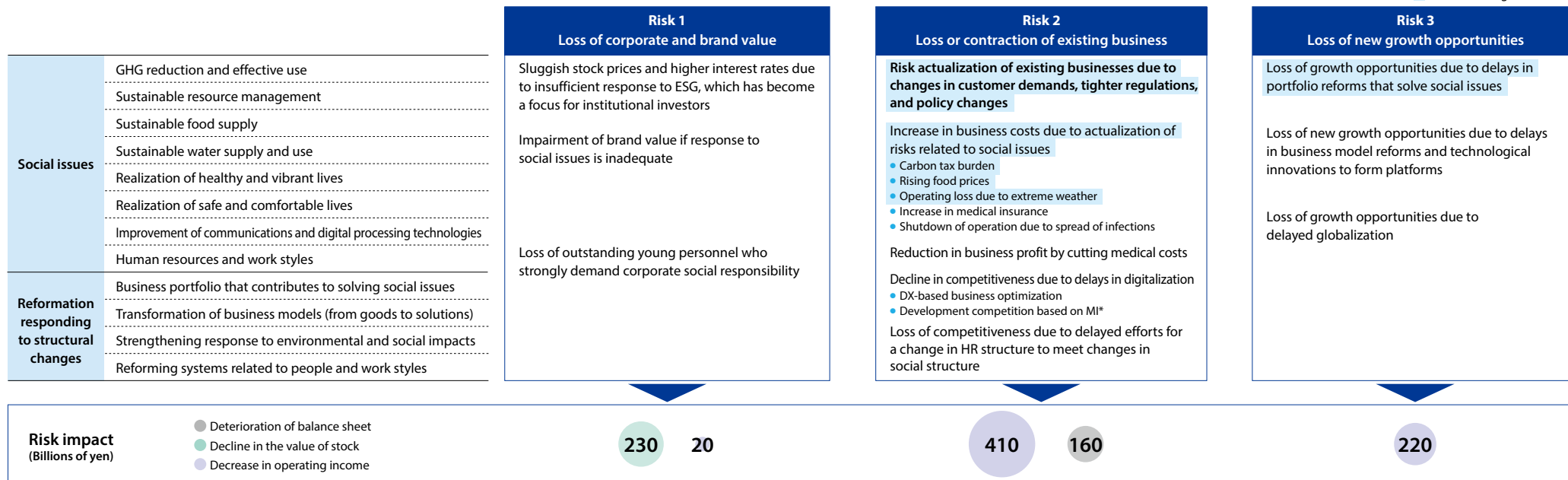
Risk management: Measures against major risks (▶ Page 66)

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Evaluation of risk in the case of social issues, including climate change-related issues, being left unmanaged (identified in KV30)

Climate change-related risk



* Materials informatics: AI-based method to design new materials and explore alternative materials rapidly and efficiently.

Overview of risk based on scenario analysis (focusing on risks with a heavy impact)

Risks recognized	Outline of risk based on the scenario*	Impact on MCG	Response to potential risk
Regulation of usage of plastic-products	Decreased demand for virgin petrochemical products due to an increase in the plastic collection rate	Reduced demand for petrochemical products	Focus on businesses that contribute to achieving carbon neutrality
Rise in carbon price	Increase in operating costs due to a carbon price rise	Rise in operating costs	GHG emissions reduction in line with the basic policy for realizing carbon neutrality
Operating loss due to extreme weather	Increased impact on manufacturing sites due to increased flood risk in Asia	Shut-down of plant operations in coastal areas due to disaster	Measures to prepare for major natural disasters to minimize damage and ensure business continuity

* Based on the World Energy Outlook (WEO) Sustainable Development Scenario (SDS) and other sources:

The SDS scenario is one outlined by the International Energy Agency (IEA) in line with the Paris Agreement target, where the global mean temperature rise compared to pre-industrial levels is kept to well below 2°C, with efforts to reduce it to 1.5°C.

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Business opportunities

As set out in our new management policy, we will also devote resources to businesses that contribute to realizing carbon neutrality based on portfolio management with a focus on growth, performance, and sustainability.

We will progressively expand the business scale and strengthen the profitability of specific focus businesses that offer climate change-related business opportunities, including lighter mobility materials, vehicle-mounted battery materials, bioplastics, and carbon fiber and composite materials.

Impact of business opportunities and risks from perceived social issues

- In fiscal 2022, the target year of *Step 1* of the medium-term management plan *APTSIS 25*, we aim to raise to 12% the proportion of sales revenue from products that contribute to the circular economy or mitigate and adapt to climate change.
- We estimate risk associated with social issues and structural change in 2030 at around ¥1 trillion.

For reference:

New Management Policy, "Forging the future" (▶ Pages 23–29)
Overview of Business Domains (Performance Products Domain) (▶ Pages 87–89)

Process of risk identification, evaluation, and management

Portfolio management

As announced in the new management policy, MCG has designated carbon neutrality as a selection criterion for its focus businesses. Incorporating a carbon-neutral perspective, our portfolio management will focus on growth markets where we have a competitive advantage.

For reference:

Portfolio for the New Management Policy "Forging the future" (▶ Pages 24–26)

Risk management

We will strive to avoid the occurrence of major risks and minimize losses when they occur under our risk management system.

In addition, we have begun studying the introduction of Enterprise Risk Management (ERM), which comprehensively manages risk relating to Group business activities that are linked to significant issues identified from the perspective of material issues, and promotes minimization of loss and appropriate risk acceptance from a Company-wide standpoint.

For reference:

Risk Management (▶ Pages 65–67)

Metrics and targets

Metrics and targets to assess risks and opportunities

The management indices (MOS Indices) set to measure progress with material issues include the GHG emissions reduction rate and the percentage of sales revenue from products that contribute to the circular economy or mitigate and adapt to climate change.

We have also established medium-term targets and will measure progress year by year (▶ Page 77, "Strategy and risk management"). As indicated under Strategy, the GHG emissions reduction targets have been changed to targets for the realization of carbon neutrality.

For reference:

Risk Management (▶ Pages 65–67)
Sustainability Indices (▶ Pages 71–74)

Scope 1, 2, 3 GHG emissions

Please see GHG emissions in "Non-Financial Highlights" for the performance in fiscal 2021. We have received independent assurance for GHG emissions, and are working to disclose highly reliable information.

For reference:

Non-Financial Highlights (▶ Page 97)
Environmental Data / Independent Assurance Report (▶ Pages 107, 109)