

## The Meiji Group's TCFD Initiatives

The business of the Meiji Group is based on the abundant gifts of nature. We therefore believe that it is our responsibility to live in harmony with the global environment and nature. In recent years, however, the sustainability of the global environment has been in jeopardy. We recognize that climate change will have a significant medium- to long-term impact on our business activities and is an important management issue for the Group. International frameworks such as the Paris Agreement and the Sustainable Development Goals (SDGs) are also calling for increased efforts to address climate change. To contribute to these international efforts, we are implementing climate change initiatives to help achieve a decarbonized society.

In 2019, the Meiji Group agreed to join the Task Force on Climate-Related Financial Disclosures (TCFD), established by the Financial Stability Board.\*1 We also joined the TCFD Consortium that Japan's Ministry of Economy, Trade and Industry, Ministry of the Environment, and Financial Services Agency launched as a collaborative platform for supporting companies, financial institutions, and other organizations, and accordingly started analyses and disclosures based on the TCFD framework.

We outline our TCFD initiatives below.

### ■Governance System

Important sustainability activities of the Meiji Group as a whole are discussed by the Executive Committee, supervised by the Board of Directors, and then reflected in management. We also established a Chief Sustainability Officer (CSO) position as the senior manager responsible for sustainability to further strengthen Group-wide sustainability activities.

The Group Sustainability Committee, which is chaired by the President and Representative Director of Meiji Holdings, meets twice a year, and the Group Sustainability Secretariat Committee, which comprises sustainability-related divisions of Meiji Holdings and its Group companies Meiji, Meiji Seika Pharma and KM Biologics, meets monthly. At the meetings, they discuss a range of topics, including initiatives toward addressing social issues and the overall progress of sustainability activities. We analyze climate change-related risks and opportunities, as well as responses to them. The Group TCFD Committee (which met seven times in FY2021) examines those matters. The results are discussed by the Executive Committee and reported to the Board of Directors, which is responsible for supervision. With the Meiji Holdings Risk Management Department participating in the Group TCFD Meeting, we have also established a system to identify and respond to climate change impacts as serious risks to the entire Group.

#### Climate Change-related Group Sustainability Promotion System



### ■Strategy

We recognize that climate change-related risks and opportunities constitute a significant management issue for the Meiji Group. We have thus established materiality and key performance indicators (KPIs) including "Reduce CO<sub>2</sub> emission volume" and "Secure water resources" and are promoting initiatives to continue living in harmony with nature based on our 2023 Medium-Term Business Plan (short-term basis), Meiji Group Sustainability 2026 Vision (medium-term basis), and our long-term environmental vision, the Meiji Green Engagement for 2050 (long-term basis).

#### <Takeaways from our FY2021 Achievements>

- Analyzed the entire supplier chain and calculated the financial impact on the Meiji Group
- Established three scenarios (1.5-degree, 2-degree, and 4-degree) based on Representative Concentration Pathway (RCP) 2.6, RCP4.5, RCP6.0, and RCP8.5 of the Intergovernmental

Panel on Climate Change (IPCC), and scenarios including NZE, SDS, APS, and STEPS proposed by the International Energy Agency (IEA). Currently examining countermeasures for and analyzing medium- to long-term climate change-related risks and opportunities, setting 2030 and 2050 as base years

- Enhanced our analysis of the impact that climate change has on raw materials (expanded the scope of raw materials and added water risk effect analysis)
- Further examined climate change-related opportunities
- Strengthened countermeasures (e.g., adoption of internal carbon pricing and development of transition plans) to achieve the Meiji Green Engagement for 2050

From the results of our analyses on major impacts under the 1.5-degree, 2-degree, and 4-degree scenarios, below we describe the results for the 1.5-degree and 4-degree scenarios that involve major impacts.

<Target scope of analysis>

Business segment	Food	Pharmaceutical
Company	Meiji Co., Ltd.	Meiji Seika Pharma Co., Ltd. KM Biologics Co., Ltd.
Scope of financial impact calculation	Meiji Group as a whole	
Target raw material	Major raw materials [Dairy, cocoa, palm oil, sugar, timber (paper), eggs]	
Analysis base years	Current, 2030 (medium term) and 2050 (long term)	

<Effect on the Meiji Group under the 1.5-degree scenario (transition risks)>

Change related to climate change	Major and specific impacts	Impact on Meiji Group		
		Relevant supplier chain	Amount of impact (Unit: Billion yen)	
			2030	2050
Reinforcement of the government's environmental regulations	Increase in amount of carbon pricing burden	Manufacturing	3.7	8.0
		Sourcing Logistics	20.1	27.7
Expansion of investment in power facilities for widespread renewable energy use	Increase in amount of electricity purchased	Manufacturing	2.0	2.8

<Effect on the Meiji Group under the 4-degree scenario (physical risks)>

Change related to climate change	Major and specific impacts	Impact on Meiji Group		
		Relevant supplier chain	Amount of impact	
			2030	2050
Increase in severity and frequency of typhoons, torrential rains, etc.	Opportunity losses from flood damage	Manufacturing Logistics	Approximately 300 million yen per base	
Change in growth environment of raw materials resulting from temperature rise and water risks	Increase in raw material sourcing costs	Sourcing	-	-

□Major Impacts and Specific Effects

<1.5-degree scenario>

•Effect of introducing carbon pricing (the company)

We estimate a 3.7 billion yen cost increase in 2030, while reducing costs by 1.4 billion yen by undertaking energy-saving and creation activities and purchasing renewable energy-derived electricity. In 2050, we expect to see a 1.9 billion yen reduction by strengthening transition plan-aligned countermeasures (e.g., active adoption of new technology and next-generation energy). We are, however, estimating a 8 billion yen cost increase, as current technologies offer no prospect for eliminating CO<sub>2</sub> emissions, and to achieve this, we will need to purchase emissions allowances at a cost of 4 billion yen.

Unit: billion yen

Detail of initiative	2030	2050
(1) Amount of carbon pricing borne when no countermeasures are taken	5.1	5.9
(2) Amount of carbon pricing reduced through countermeasure	-1.4	-1.9
(3) Amount of emissions allowances purchased to eliminate CO <sub>2</sub> emissions	-	4.0
Total	3.7	8.0

•Effect of purchased electricity amount (the company)

In 2030, we plan to reduce costs by 1.7 billion yen through energy-saving and energy-creation activities, but anticipate a cost increase of 2.0 billion yen due to the extra cost of electricity derived from renewable energy. Similarly, we expect a 2.8 billion yen cost increase in 2050.

Unit: billion yen

Detail of initiative	2030	2050
(1) Amount increased with rise in electricity unit price	3.0	8.8
(2) Amount reduced through energy-saving and creation activities, etc.	-1.7	-7.1
(3) Amount increased with purchase of renewable energy-derived electricity	0.7	1.1
Total	2.0	2.8

We devised a transition plan that covers the active introduction of new technology and next-generation energy in addition to our current undertakings (e.g., energy-saving and creation activities and purchase of renewable energy-derived electricity). We also adopted an internal carbon pricing system in FY2021 (5,000 yen per 1 t-CO<sub>2</sub>), preparing to ensure a smooth transition after the full-scale introduction of carbon pricing.

Below is an outline of the transition plan.

<u>2019 (base year)</u>	<u>2030</u>	<u>2040</u>	<u>2050</u>
Scope 1	<ul style="list-style-type: none"> <li>• Adopt energy-efficient equipment (e.g., optimize production with equipment that features outstanding environmental performance, heat pumps, heat recovery/utilization, and artificial intelligence)</li> </ul>		
	<ul style="list-style-type: none"> <li>• Switch to low-CO2 emitting fuel</li> </ul>		
	<ul style="list-style-type: none"> <li>• Use hydrogen fuel, methanation, etc.</li> </ul>		
	<ul style="list-style-type: none"> <li>• Use and switch to biomass fuel (e.g., wood chips, methane fermentation, and euglena-derived fuel)</li> </ul>		
	<ul style="list-style-type: none"> <li>• Adopt CO2 recovery/reuse (direct air capture and carbon recycling) equipment, etc.</li> </ul>		
Scope 2	<ul style="list-style-type: none"> <li>• Purchase renewable energy certificates, utilize emissions trading</li> </ul>		
	<ul style="list-style-type: none"> <li>• Next-generation advanced technology</li> </ul>		
	<ul style="list-style-type: none"> <li>• Adopt energy-efficient equipment (e.g., optimize production with equipment that features outstanding environmental performance, light-emitting diode lighting, and artificial intelligence)</li> </ul>		
	<ul style="list-style-type: none"> <li>• Adopt solar power generation equipment</li> </ul>		
	<ul style="list-style-type: none"> <li>• Adopt perovskite solar cell</li> </ul>		
	<ul style="list-style-type: none"> <li>• Purchase renewable energy-derived electricity supported by RE100</li> </ul>		
	<ul style="list-style-type: none"> <li>• Purchase renewable energy by collaborating with renewable energy operators (e.g., biomass, solar, wind, and geothermal)</li> </ul>		

•Effect of introducing carbon pricing (major raw material)

Based on the countermeasures overviewed below, we estimate a 20.1 billion yen increase in 2030 based on the carbon price in our major raw material sourcing countries. Likewise, we estimate a 27.7 billion yen increase in 2050.

- Promote study of low-carbon dairy farming and carbon credits
- Accelerate milk collection volume (productivity) enhancement through Meiji Dairy Advisory (MDA), the Meiji Group's unique program for providing support to dairy farmers
- Promote sourcing of dairy ingredients that support low-carbon dairy farming
- Promote reduction of greenhouse gas (GHG) emissions through stronger collaboration with suppliers
- Promote use of raw materials that contribute to reducing environmental impact (biomass plastics, recycled plastics, certified raw materials)
- Reduce packaging material usage

<4-degree scenario>

•Opportunity losses, such as site shutdowns, resulting from flood damage

The estimated amount of damage per flood is on the scale of 300 million yen, based on previous cases. We calculated this amount by referencing the damage (e.g., unsaleable products discarded as a result of distribution network disruption) the Meiji Group incurred as a result of floods caused by heavy rainfall. Twelve of our bases are expected to face opportunity losses from floods, taking into consideration results achieved by using Aqueduct (the World Resources Institute's open-source tools for global water risk evaluation) and the availability of alternative production bases.

We will identify the circumstances of high-risk bases by collaborating with them and analyzing gaps between risk evaluation results, and based on those results, take proper flood risk countermeasures upon factoring in the Business Continuity Plan. Countermeasures have already been taken at the Odawara Plant of Meiji Seika Pharma Co., Ltd. (e.g., introducing provisional water stops, installing new waterproof banks at its transformer substation, and introducing backup boards for outdoor air conditioner units).

• Impacts on sourcing of major raw materials

We expect climate change-based temperature rise and water risks to reduce crop yields and shift the unit prices of raw materials in raw material production areas. Below, we overview the results of our analysis on water risks (water stress, drought, and flood risk, which indicate a deterioration in the supply-and-demand balance of water) and changes in yields at raw material production areas.

Expected change in yields

- We expect reduced yields in cacao bean and sugar source countries
- In contrast, we expect to see relatively little impact both in 2030 and 2050 regarding the main areas from which the Meiji Group sources cocoa.
- We expect the impact on dairy to remain within a few percentage points both in 2030 and 2050. This impact, based on our expectation, is addressable by enhancing productivity (e.g., changing feedstuff mixes) and will pose no significant risk.

Expected water risks

- We expect low water stress and water shortage risks in most areas, with some exceptions.
- We expect flood risks to rise in most areas, and thus believe that we need to examine improvement measures upon confirming the flood risk of each production area.

As a result of these impacts, we expect the sourcing costs for major raw materials to increase. We will endeavor to reduce these costs through the following initiatives.

(1) Product-related measures

- ◇ Add value to products by boosting their health and nutritional value and creating social value from a sustainability perspective
- ◇ Optimize our portfolio by reviewing product strategies
- ◇ Raise unit prices through price revisions

(2) Raw material-related measures

- ◇ Modify formulations and use alternative materials
- ◇ Optimize source countries, area, and suppliers

(3) Production- and distribution-related measures

- ◇ Enhance productivity through efficient production and streamline processes between material procurement and product completion

(4) Collaboration with suppliers

- ◇ Strengthen engagement to reduce sourcing costs and risks

## □Measures to Opportunities

We believe that the direct impact of climate change will alter society and daily lives, thereby creating new needs and opportunities. The Meiji Group expects to obtain opportunities including those mentioned below by leveraging our current operating bases and adopting new resources. Going forward, we will explore the feasibility of each opportunity on a Group-wide basis and promote concrete efforts to realize them.

Direct impact of climate change	Impact of climate change on society and daily life
<ul style="list-style-type: none"> <li>• Rise in average temperature</li> <li>• Intensification of disasters</li> <li>• Changes in precipitation patterns</li> <li>• Harm to biodiversity</li> <li>• Reduction of crop yields</li> <li>• Rise in sea level</li> <li>• Permafrost thawing etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in lifestyles resulting from temperature rise (e.g., self-restraint on going out and moving between locations, staying at home, thirst-quenching, heat stroke)</li> <li>• Rise in food and energy prices, changes in producer expenditures</li> <li>• Stricter GHG emission restrictions, manifestation of water risks (water shortages, deterioration of water quality)</li> <li>• Promotion of environmental load-reducing lifestyles (e.g., reduction of waste and discarded unsaleable products, energy-saving, and ethical consumption)</li> <li>• Permanent overwhelming on medical institutions and increased awareness of infectious disease prevention</li> <li>• Increased awareness of disaster countermeasures</li> <li>• Intensified malnutrition in developing countries</li> </ul>

Keys to gaining opportunities	Needs expected to grow	Opportunities for the Meiji Group
Responses to changes in lifestyles (e.g., staying at home)	<ul style="list-style-type: none"> <li>• Thirst-quenching and heat stroke countermeasures as a result of temperature rise</li> <li>• Products and systems to complete daily activities inside one's home</li> <li>• Maintenance of health through improved nutritional balance</li> </ul>	<ul style="list-style-type: none"> <li>• Expand heat protection products</li> <li>• Expand home delivery businesses</li> <li>• Customized nutrition-supporting businesses</li> </ul>
Responses to growing environmental awareness	<ul style="list-style-type: none"> <li>• Products with low environmental impact (e.g., vegetable-derived products, cell culture, circular agriculture)</li> <li>• Products and lifestyles that involve fewer discarded products and reduced energy use</li> <li>• Sustainable sourcing of raw materials</li> </ul>	<ul style="list-style-type: none"> <li>• Expand environmental impact-reducing products</li> <li>• Eco-friendly and environment-supporting businesses</li> <li>• Expand products that use sustainable raw materials</li> </ul>

Responses to emerging and re-emerging infectious diseases	<ul style="list-style-type: none"> <li>• Habituation of infectious disease prevention behaviors (e.g., gargling, hand-washing, mask-wearing, and boosting the immune system)</li> <li>• Self-medication for infectious diseases</li> <li>• Countermeasures against infectious diseases in developing countries</li> </ul>	<ul style="list-style-type: none"> <li>• Globally expand infectious disease drugs and products to boost the immune system</li> <li>• Business for comprehensive infectious disease treatment (e.g., natural immunity, acquired immunity, and pharmaceuticals)</li> <li>• Supply infectious disease products to developing countries and raw material-producing countries and provide support</li> </ul>
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### ■Risk Management

The Meiji Group is promoting group-wide risk management to ensure that it can accurately respond to risks that could severely impact our business activities by treating climate change as a priority risk for management.

The Board of Directors supervises climate change-related risks based on our governance system after the Group TCFD Committee, in which the Risk Management Department participates, reviews the risks, and the results of the review are examined by the Executive Committee and reported to the Board of Directors. With the participation of the Risk Management Department, we established a system that can be integrated with risk management for the entire Group.

Recognizing that climate change-related risks and opportunities change with the times, we also conduct quantitative analysis and evaluation with TCFD recommendations-aligned scenario analysis, identify high-priority major impacts, and examine countermeasures based on risk management flows. We then discuss the examined results in the Executive Committee, report them to the Board of Directors, which performs supervision, and properly reflect the results in management.

## ■Metrics and Targets (Including Progress)

The Meiji Group established materiality and KPIs by formulating the Meiji Group Sustainability 2026 Vision and our long-term environmental vision, the Meiji Green Engagement for 2050. Given that responses for climate change-related risks and opportunities (e.g., activities to reduce environmental impacts and raw material sourcing) entail diverse action, we have established the following KPIs and manage their progress accordingly. We regularly check the progress made on each KPI, work systematically to achieve the indicators, and evaluate the results as part of the Meiji ROESG<sup>®\*1</sup> indicators and reflect them in the remuneration of directors and corporate auditors.

KPIs associated with climate change-related risks and opportunities

Major impacts	Category	KPIs		
		Sustainability 2026 Vision	Long-term environmental vision	Progress in FYE 3/2022 *2, 3
Introduction of carbon pricing	CO <sub>2</sub> emission volume	Reduce company-wide CO <sub>2</sub> emissions (Scope 1 and 2) by at least 50% by FYE 3/2031 and at least 30% for Scope 3 (compared to FYE 3/2020)	Reduce company-wide CO <sub>2</sub> and other greenhouse gas emissions to nearly zero in the whole supplier chain by 2050	Scope 1 and 2: Reduced 13.7% Scope 3: Reduced 0.9%
	Renewable energy usage	Expand renewable energy usage to make up at least 50% of total company-wide usage by FYE 3/2031	Achieve 100% share of renewable energy in total power usage at each site by 2050	5.3%
	Plastic usage	Reduce domestic plastic usage (e.g., packaging) by at least 25% by FYE 3/2031 (compared to FYE 3/2018)	Minimize use of new natural capital for packaging, utilizing recyclable resources	Reduced 11.7%*4
Water sourcing cost	Water consumption volume	Reduce company-wide water consumption volume per unit of sales by at least 20% by FYE 3/2031 (compared to FYE 3/2018)	Reduce company-wide water consumption volume per unit of sales by 50% by 2050, compared to FYE 3/2018	Reduced 8.4%*5
Sustainable sourcing of major raw material	Cocoa	Increase procurement ratio of sustainable cocoa beans to 100% by FYE 3/2027	-	42%
	Palm oil	Switch 100% to RSPO-certified palm oil by FYE 3/2024	-	84%
	Timber (paper)	Switch 100% to eco-friendly paper by FYE 3/2024	-	98%
	Raw milk	Conduct MDA activities to provide management-related support to dairy farmers at least 400 times a year and at least 2,150 times in total by FYE 3/2024	-	475 times/year Cumulative total: 1,423

\*1 The ROESG performance indicator was created and registered as a trademark by Professor Kunio Ito of Hitotsubashi University.



- \*2 Figures are pre-third-party-certification calculations and are subject to change.
- \*3 Described here are the reduction rates (%) compared to the base year.
- \*4 Plastic usage reduction results for FYE 3/2021.
- \*5 We calculated our progress in water consumption volume based on sales prior to applying the Accounting Standard for Revenue Recognition.