

The Meiji Group's TCFD Initiatives

The Group's business 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.

Information on climate change is presented based on the framework of the Task Force on Climate-Related Financial Disclosures (TCFD).

(1) Governance and Risk Management

The Group Sustainability Secretariat Committee, which is chaired by the Chief Sustainability Officer (CSO), meets monthly, and the Group is reinforcing its initiatives to address social issues, including climate change, so that we can carry out our sustainability strategies. In addition, the Group Sustainability Committee, which is chaired by the President and Representative Director of Meiji Holdings, meets twice each year to report on the overall progress of sustainability initiatives and deliberate on new measures. Climate change in particular is positioned as a key issue. Regarding governance, the Group TCFD Committee (which met six times in FY2022) analyzes risks and opportunities arising from climate change and deliberates on countermeasures. The results are discussed by the Executive Committee and reflected in management.

Risk management is carried out Group-wide so that we can accurately address risks that will have a significant impact on corporate activities. Within risk management, we position climate change as a key management risk. Recognizing that climate change-related risks and opportunities change with the times, the Group TCFD Committee also conducts quantitative analysis and evaluations using scenario analysis in line with the TCFD recommendations and identifies high-priority major impacts. Based on this, the Committee investigates countermeasures aligned with risk management flows. The Meiji Holdings Risk Management Department also participates in the Group TCFD Committee, and based on an understanding the effects of climate change pose major risks to the Group as a whole, we have established systems that can respond to those risks.



(2) 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 CO₂ 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 FY2022 Achievements>

- Analyzed the Group’s entire supply chain and calculated the financial impact on the Group
- Established three scenarios (1.5-degrees, 2-degrees, and 4-degrees) and currently analyzing medium- to long-term climate change-related risks and opportunities, setting 2030 (medium term) and 2050 (long term) as base years and examining countermeasures (in line with the previous fiscal year)
- 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)
- Strengthened countermeasures (e.g. adoption of internal carbon pricing and development of transition plans) to achieve the Meiji Green Engagement for 2050
- Implemented specified measures for the countermeasures formulated in the previous fiscal year
- Identified opportunities arising from climate change and ranked them by priority along a time axis

The Meiji Group is taking action to reduce GHG emissions based on the GHG management hierarchy established by the IEMA.

- Eliminate:** Transition to business structures that do not emit greenhouse gases throughout the lifecycle across business models and the business portfolio
- Reduce:** Reduce energy use and GHG emissions by increasing the efficiency of manufacturing processes and transportation and taking other measures
- Substitute:** Switch to energy and procured materials with lower GHG emissions by using renewable energy, procuring low-carbon materials, and other means
- Compensate:** Compensate for GHG emissions that cannot be reduced using offsets such as purchases of carbon credits

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
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)	

Impacts on the Group Under the 1.5-Degree Scenario (Transition Risks)

Change related to climate change	Major and specific impacts	Impact on the 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

Impacts on the Group Under the 4-Degree Scenario (Physical Risks)

Change related to climate change	Major and specific impacts	Impact on the 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 an 8 billion yen cost increase, as current technologies offer no prospect for eliminating CO₂ 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
Amount of carbon pricing borne when no countermeasures are taken	5.1	5.9
Amount of carbon pricing reduced through countermeasure	-1.4	-1.9
Amount of emissions allowances purchased to eliminate CO ₂ emissions	-	4.0
Total	3.7	8.0

* The amount of the impact from the introduction of the carbon pricing under the 1.5-degree scenario was calculated based on the NZE scenario carbon prices (for 2030 and 2050) announced in the World Energy Outlook (WEO) 2021 of the International Energy Agency (IEA).

・ 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

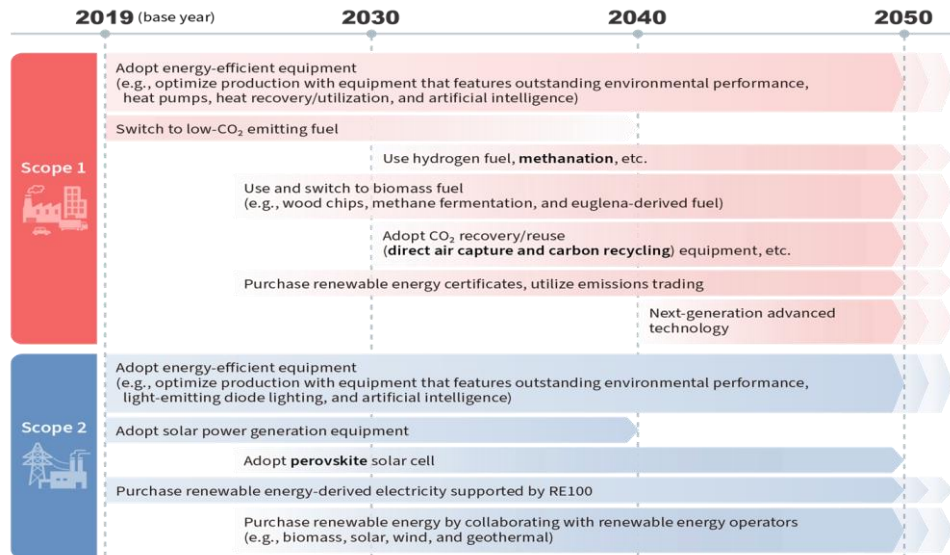
Detail of initiative	2030	2050
Amount increased with rise in electricity unit price	3.0	8.8
Amount reduced through energy-saving and creation activities, etc.	-1.7	-7.1
Amount increased with purchase of renewable energy-derived electricity	0.7	1.1
Total	2.0	2.8

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-CO₂), preparing to ensure a smooth transition after the full-scale introduction of carbon pricing.

*The amount of the impact from the amount of purchased electricity under the 1.5-degree scenario was calculated based SDS scenario information from the Research Institute of Innovative Technology for the Earth (RITE) and the World Energy Outlook (WEO) 2081 of the International Energy Agency (IEA).

Below is an outline of the Company's transition plan.

We will actively implement measures and adopt new technologies to achieve a carbon-neutral society by 2050, as set forth in our long-term environmental vision.

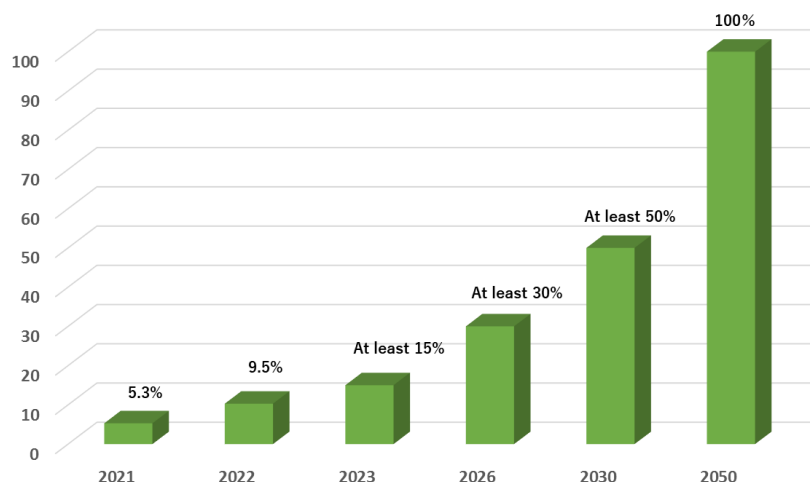


*Scope 1: Direct greenhouse gas emissions by the reporting company itself (from fuel consumption and industrial processes)

Scope 2: Indirect emissions from the use of electricity, heat, or steam supplied by others.

The Group has implemented various measures, including the adoption of solar power generation equipment and energy-efficient equipment at our factories and other facilities, as well as the purchase of renewable energy-derived electricity supported by RE100. As a result of promoting these measures in line with the transition plan, in FY2022, renewable energy accounted for 9.5% of total electricity used. The Group is taking further action with a target of reaching 100% by 2050.

Percentage of total electricity use from renewable energy



• 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.

***The amount of impact from the introduction of the carbon pricing under the 1.5-degree scenario was calculated based on the NZE scenario carbon prices (for 2030 and 2050) announced in the World Energy Outlook (WEO) 2021 of the International Energy Agency (IEA).**

In addition, we consider the reduction of not only CO₂ emissions but also greenhouse gas (GHG) emissions in general, such as methane from the dairy industry, to be an important issue with respect to major raw materials. In order to reduce GHG emissions, we have established a transition plan for Scope 3, focusing on dairy. In order to effectively reduce GHG emissions, we began by calculating the carbon footprint (CFP) of milk to identify the processes with the highest GHG emissions throughout the lifecycle, and then developed and initiated measures to reduce emissions in those processes. In addition, we will consider measures for other raw materials and engage with suppliers to reduce their GHG emissions, thereby facilitating emissions reductions at suppliers and, ultimately, throughout the supply chain.

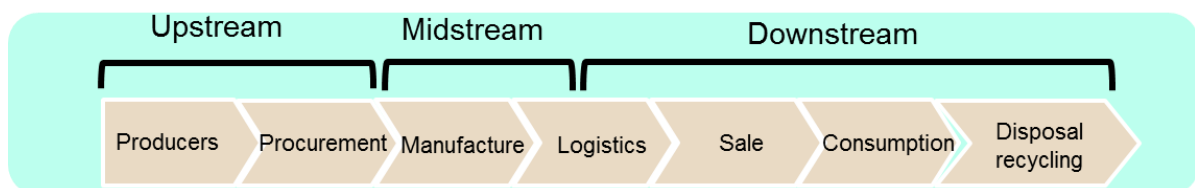
Below is an outline of the transition plan for the supply chain (Scope 3). Details of the corresponding measures for 1 to 4 in the figure are provided below.



*Scope 3: Indirect emissions from the supply chain other than Scope 1 and Scope 2, generated in the supply chain in business activities from the procurement of raw materials including goods and services to manufacture, sale, use, and disposal.

Countermeasure 1: Calculation of Milk Carbon Footprint (CFP)

To establish a calculation formula for milk, we began by calculating GHG emissions for "Meiji Organic Milk" throughout its lifecycle (from milk procurement to manufacture, consumption and disposal) based on actual data collected from several dairy farms and other sources. From this, we learned that the upstream segment accounts for more than 90% of emissions, and therefore, we are taking action to reduce emissions in cooperation with producers and suppliers.



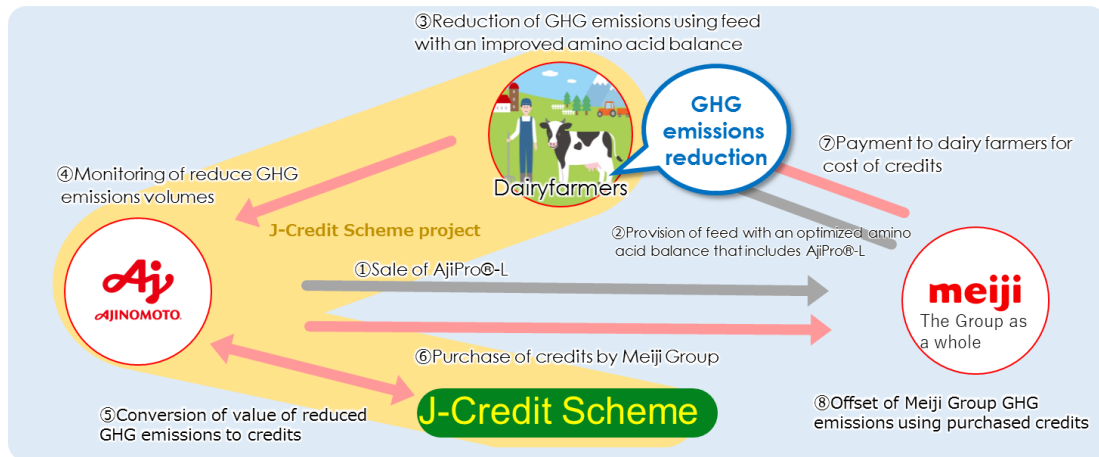
Percentage of total of GHG emissions

Product Name	Unit	Emissions by Supply Chain Segment			Total Emissions
		Upstream	Midstream	Downstream	
Meiji Organic Milk	Percentage of Total	90.7%	5.8%	3.4%	100%

Countermeasure 2: Creation of a Business Model to Reduce N₂O from Manure

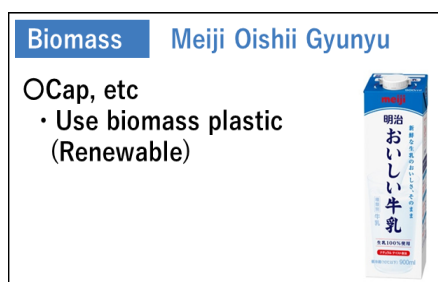
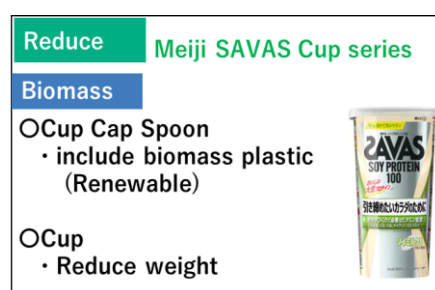
Dairy farmers, Ajinomoto Co., Inc., and the Group played central roles in the creation of a business model. We used AjiPro®-L, an Ajinomoto product, to curtail excess nitrogen in feed and thereby reduce N₂O emissions from manure while maintaining milk production volume by improving the amino acid balance in the feed.

Under the model we created, the dairy farmers and Ajinomoto use the J-Credit Scheme to convert the N₂O reductions into credits, and by purchasing those credits, we are providing economic support to the dairy farmers.



Countermeasure 3: Reduction of Packaging Material Use

Reducing the use of plastic made from oil, which is the main raw material in packaging material, leads to reductions in GHG emissions. We are taking action regarding packaging materials with even greater consideration for the environment based on 3R + Renewable. Specific measures are described below.



3R's: Reduce, Reuse, Recycle

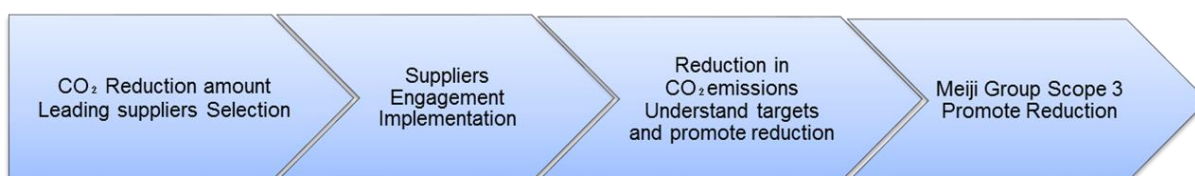
Plastic Usage Targets and Trends

Year	FY2017 base year	FY2019 (Result)	FY2020 (Result)	FY2021 (Result)	FY2030 (Target)
Result (t)	30,807	27,777	27,265	25,878	23,107
Reduction (t)	—	3,030	3,542	4,929	7,700
Reduction (%)	—	9.8	11.5	16.0	25.0

Countermeasure 4: Supplier Engagement

Reductions of CO₂ emissions by suppliers reduce the Company's Scope 3 emissions. Therefore, we will promote emissions reductions by engaging with suppliers with high CO₂ reduction amounts and sharing information on target values and best practices.

CO₂Reduction through Supplier Engagement



<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 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 analyze flood risks based on information in the pessimistic scenarios (RCP 8.5, SSP3) from Aqueduct Floods.

Flood risk countermeasures

- Conduct GAP analysis of risk assessment results in cooperation with local authorities at high-risk sites to understand the actual situation
- Conduct detailed surveys of business sites with particularly high priority and investigate and implement physical countermeasures in anticipation of the flood area and flood depth

Examples of countermeasures: Installation of box walls (temporary water barriers) and waterproof walls

• 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 the future.
- 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.

*The impacts on procurement of major raw materials under the 4-degree scenario were calculated based on future yield predictions in the GAEZv4 database (RCP8.5) released by the FAO and a literature survey.

Agricultural products procured as raw materials closely related not only to climate change, but also to the conservation of natural capital and biodiversity. We used the LEAP approach of the Taskforce on Nature-related Financial Disclosures (TNFD) to analyze the degree of reliance on nature for cacao beans, an important raw material for the Group.

Analysis of Nature-related Risks in Cacao Bean Production Regions

- Since cacao bean production relies heavily on nature, we investigated to ascertain the degree of reliance in key cacao bean production sites (13 locations). As a result, we learned that reliance is particularly high with respect to mitigating the effects of natural disasters and curtailing soil erosion. In addition, we identified sites that face risks relating to these two important items. In the future, we will take action to avoid reductions in yield while performing gap analysis and so on with production areas.
- Number of sites with extremely high risks relating to mitigating the effects of natural disasters: 2
- Number of sites with extremely high risks relating to curtailing soil erosion: 2

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.

• Product Measures

- ◇ Increase unit price through price revisions
- ◇ Promote high-value-added products by enhancing health and nutritional value and creating social value through sustainability
- ◇ Optimize portfolio by reviewing product strategies

Countermeasure	Specific Examples
Increase added-value of products (Reinforce health value and nutritional value)	• Meiji Mei Balance MICHITAS • Meiji Anti-Fat Yogurt
Increase added-value of products (Shift from the social value of sustainability to the economic value)	• Agroforestry Milk Chocolate • Meiji Organic Milk



Meiji Mei Balance MICHITAS



Meiji Anti-Fat Yogurt



Agroforestry Milk Chocolate



Meiji Organic Milk

- Raw material measures
 - ◇ Change formulations and use alternative ingredients
 - ◇ Optimize procurement countries/regions/suppliers
- Production/logistics measures
 - ◇ Improve productivity and purchasing and logistics efficiency through efficient production
- Cooperation with suppliers
 - ◇ Reduce procurement costs and risks by strengthening engagement

□ Measures to Address 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.

The process up to the creation of opportunities is described below.

- Members of the Group TCFD Committee secretariat conduct individual hearings of organizations relating to investigation of opportunities.
- The Group TCFD Committee deliberates on the direction of opportunities.
- Opportunities are quantitatively organized from perspectives including the relationship with (distance from) existing business, the possibility of responding using existing company assets, and feasibility.
- Business opportunities are identified by narrowing the points for acquisition of opportunities to those that are highly feasible.

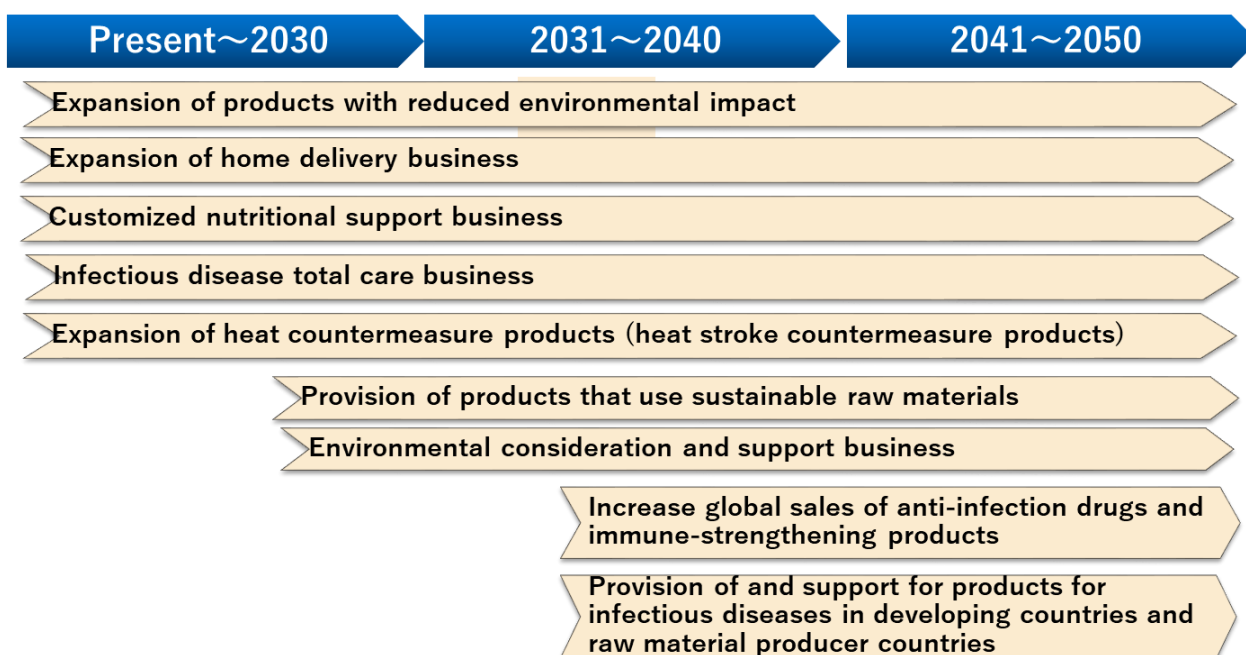
Going forward, the Group as a whole will explore the feasibility of each opportunity and take concrete action to achieve them.

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

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"> • Thirst-quenching and heat stroke countermeasures as a result of temperature rise • Products and systems to complete daily activities inside one's home • Maintenance of health through improved nutritional balance 	<ul style="list-style-type: none"> • Expand heat protection products • Expand home delivery businesses • Customized nutrition- supporting businesses
Responses to growing environmental awareness	<ul style="list-style-type: none"> • Products with low environmental impact (e.g., vegetable-derived products, cell culture, circular agriculture) • Products and lifestyles that involve fewer discarded products and reduced energy use • Sustainable sourcing of raw materials 	<ul style="list-style-type: none"> • Expand environmental impact-reducing products • Eco-friendly and environment-supporting businesses • Expand products that use sustainable raw materials
Responses to emerging and re-emerging infectious diseases	<ul style="list-style-type: none"> • Habituation of infectious disease prevention behaviors (e.g., gargling, hand-washing, mask-wearing, and boosting the immune system) • Self-medication for infectious diseases • Countermeasures against infectious diseases in developing countries 	<ul style="list-style-type: none"> • Globally expand infectious disease drugs and products to boost the immune system • Business for comprehensive infectious disease treatment (e.g., natural immunity, acquired immunity, and pharmaceuticals) • Supply infectious disease products to developing countries and raw material- producing countries and provide support

In addition, we prioritized these nine business opportunities along a time axis, from those that are currently being worked on to those we will work on in the medium to long term.

<Timeline for Acquisition of Business Opportunities>



(3) 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® *1 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 3/2023 * 2
Introduction of carbon pricing	CO ₂ emission volume	Reduce company-wide CO ₂ 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 ₂ and other greenhouse gas emissions to nearly zero in the whole supplier chain by 2050	Scope 1 , 2 14.7% Scope 3 :7.0% * 2 , 3
	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	9.5%
	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	16.0% * 2 , 4
Water sourcing cost	Water consumption volume	Reduce company-wide water consumption volume per unit of sales by at least 15% by FYE 3/2031 (compared to FYE 3/2021)	Reduce company-wide water consumption volume per unit of sales by 50% by 2050, compared to FYE 3/2021	13.3% * 2
Sustainable sourcing of major raw material	Cocoa	Increase procurement ratio of sustainable cocoa beans to 100% by FYE 3/2027	-	62.6%
	Palm oil	Switch 100% to RSPO- certified palm oil by FYE 3/2024	-	90.4%
	Timber (paper)	Switch 100% to eco- friendly paper by FYE 3/2024	-	98.2%
	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	-	477 times/year Cumulative total: 1,900

*1 ROESG® is a registered trademark for a management indicator developed by Kunio Ito, a professor at Hitotsubashi University.

*2 Described here are the reduction rates (%) compared to the base year. Figures are pre-third-party-certification calculations and are subject to change.

*3 Scope 3 comprises indirect CO₂ emissions from the supply chain other than Scope 1 and Scope 2.

*4 Plastic usage reduction results for FYE 3/2022.