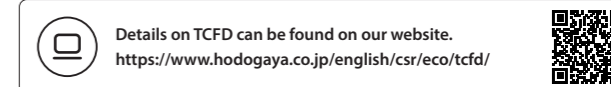


Disclosure of Information Related to Climate Change Based on TCFD



Basic approach

The Hodogaya Chemical Group will actively move forward based on the idea of balancing the pursuit of economic value and solutions to social issues and providing value to all stakeholders to fulfil its responsibilities related to creating a sustainable world/society as given in the VISION (Target Corporate Image) appearing in the Mid-term Management Plan SPEED 25/30, which started from FY2021.

As a chemical company, Hodogaya Chemical is resolutely confronting climate change in accordance with the guidance by the TCFD, while proactively striving for information disclosure.



Governance and Risk Management

The Sustainability Development Committee is a committee organization that actively promotes responsibility toward the realization of a sustainable earth and society in accordance with the Management Philosophy and Corporate Action Guidelines. We established the Global Environment Subcommittee, which promotes activities related to preservation and improvement of the global environment, and the TCFD Subcommittee, which promotes disclosure activities in response to guidance from the TCFD, in addition to the conventional RC/QM Subcommittee.

The Risk Management Committee discusses Companywide risk recognition, evaluation and mitigation measures. The Risk Management Committee also discuss environmental risks, such as

climate-related risks, opportunities and countermeasures recognized by the TCFD Subcommittee.

The content of discussions in each committee and subcommittee is submitted and reported to the Board of Directors and Management Committee.



Strategies and Risk Analysis

In pursuing the Mid-term Management Plan SPEED 25/30 business strategy of developing a new portfolio, we expect production volume to increase. We have classified the risks projected from a

long-term perspective, looking ahead to 2030, into TCFD risk categories, are proceeding with climate scenario analysis, and from the results of our analysis, we are promoting new initiatives and opportunities for transition risks and physical risks.

Scenario Analysis

Risks and Opportunities		Risks	Opportunities	Measures	Impact on business
Transitional risk 1.5°C scenario	Policy/Regulation	• Strengthening energy-related laws and regulations • CO ₂ reduction	○	• Promoting energy saving • Use of renewable energy • Review of manufacturing process	Increase in energy costs and raw material procurement costs due to the introduction of a carbon tax, etc.
	Technology	Strengthening environment management	○	Strengthen the internal structure by leveraging the knowledge gained thus far	Increased cost burden for maintenance and improvement of management system
	Market	Creation of new technologies for environmental friendliness	○	• Strengthen R&D to meet demands • Strengthen production technology capabilities by reviewing manufacturing processes, etc.	[Risk] Increase in R&D and manufacturing costs [Opportunity] Maintain and expand market share by providing products and services that meet demand
	Reputation	Eco-friendly market formation	○	Revise and strengthen business strategies by deepening market and customer needs, and improve R&D and manufacturing technology capabilities corresponding to them	[Risk] Increase in R&D and manufacturing costs [Opportunity] Maintain and expand market share by providing products and services that meet demand
Physical risk 4°C scenario	Chronic	Stakeholders making environment as important matters	○	Enhancing dialogue with local communities, personnel, and shareholders and securing a system	—
	Acute	Rise in average temperature	○	Labor saving and automation of manufacturing equipment	[Risks and Opportunities] Response to market changes, especially in the agrochemicals business
		Increase in earthquakes, typhoons, and floods	○	Promote multiple purchases, strengthen BCP	Shutting down of factories and inability to procure raw materials

Major business opportunities in transition

Segment	Opportunities
Functional Colorants Segment	• Aluminum coloring dyes Expand sales by developing eco-friendly products • Bio business Expansion from materials for PCR diagnostic kits to medical use
Specialty Polymers Segment	• PTG (urethane materials) Promoting green chemistry through biotechnology
Basic Chemicals Segment	• Hydrogen Expanding business opportunities due to the advent of the hydrogen society
Agro-Science Segment	• Hydrogen peroxide and derivatives Expanding applications to the field of agricultural materials

Targets and Indicators

The Hodogaya Chemical Group has set the following non-financial targets (climate change-related) in its Mid-term Management Plan SPEED 25/30.

- Reduction of CO₂ emissions
- Reduction of energy intensity
- Industrial waste volume reduction

These are examined by the Global Environment Subcommittee, discussed by the Sustainability Development Committee, and progress is confirmed by the Board of Directors and Management Committee.

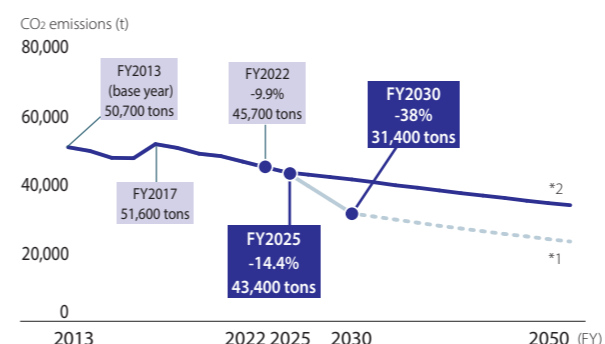
Non-financial Targets

	FY2021 results	FY2022 results	FY2025 management targets
CO ₂ emissions (CO ₂ emission intensity)	49,200 t-CO ₂ (1.176 tons/net sales million JPY)	45,700 t-CO ₂ (1.055 tons/net sales million JPY)	43,400 t-CO ₂ (0.868 tons/net sales million JPY)
Reduction of energy intensity	0.698 kl/net sales million JPY	0.636 kl/net sales million JPY	0.606 kl/net sales million JPY
Reduction of industrial waste volumes	2,746 t	3,477 t	Less than the amount generated in the previous year

Responding to Climate Change

Most of the greenhouse gases (GHG) emitted by Hodogaya Chemical are energy-derived CO₂. GHG emissions in FY2022 are approximately 46,000 t-CO₂ (Scope 1*¹ + Scope 2*²). As production is expected to increase in the future, we will address climate change from both mitigation and adaptation perspectives and from a long-term perspective looking toward FY2030.

CO₂ emissions trend



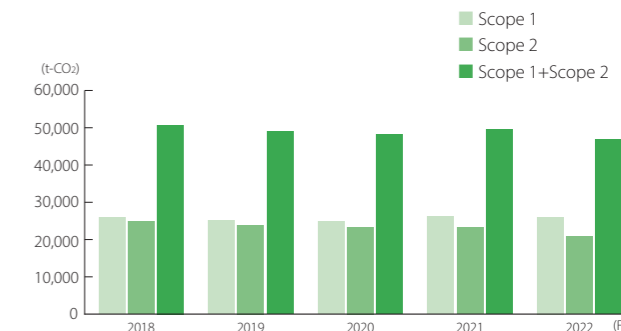
*1 The dotted line after FY2030 is an unconfirmed value.
*2 The solid line after FY2025 is the expected decrease of 1% from the previous year.

To promote CO₂ reduction, we began introducing Internal Carbon Pricing (ICP) in FY2021, which allows us to price our own carbon emission.

We have created a system that can support investment as a response to climate change toward a low-carbon society.

*1 Scope 1: Direct emissions
*2 Scope 2: Energy-originated indirect emissions

CO₂ emissions



Roadmap for Reducing CO₂ Emissions

		2030 Toward achieving future goals	2050 Development of hydrogen society and challenge to carbon neutrality
Promotion of technological innovation	Process	• Efforts to save energy — Promotion of high efficiency through process improvement — Promotion of waste heat recovery (heat pump)	• Study of hydrogen plant CO ₂ recovery and use • External procurement of green hydrogen
	Steam boiler	• Efforts to save energy — Active use of waste heat	• Improvement of electrification rate of heat source • External procurement of green hydrogen • Fuel conversion (LNG → hydrogen) — Hydrogen-fired boilers introduced at all plants • Introduction of cogeneration (hydrogen mixture → hydrogen-only combustion)
Expansion of use of renewable energy	Electricity	• Efforts to create energy — Introduction of renewable energy • Efforts to save energy — Promotion of high efficiency • Gradual switch to CO ₂ -free power sources using renewable energy	
Utilizing the ICP system	—	• Promoting ICP system • Continue switching to LED lighting equipment • Continue to introduce top-runner equipment	
Daily improvement through energy saving	—	• Reduction of heat loss through appropriate management of heat insulating materials and traps • Efficient operation	