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 fulfill 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

Strategies and Risk Analysis

Scenario 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 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.

	Board of Directors		
	President		
	Management Committee		
Sustainability Development Committ			
	RC & QM Subcommittee		
	Global Environment Subcommittee		
	TCFD Subcommittee		
	Risk Management Committee		
	Crisis Management Committee		

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.

Risks and Opportunities		Risks	Opportu- nities	Measures	Impact on business	
Transitional risk 1.5°C scenario	Policy/ Regulation	 Strengthening energy- related laws and regulations CO2 reduction 	0		 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.
		Strengthening environment management	0		Strengthen the internal structure by leveraging the knowledge gained thus far	Increased cost burden for maintenance and improvement of management system
	Technology	Creation of new technologies for environmental friendliness	0	0	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
	Market	Eco-friendly market formation	0	0	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
	Reputation	Stakeholders making environment as important matters	0	0	Enhancing dialogue with local communities, personnel, and shareholders and securing a system	-
Physical risk 4°C scenario	Chronic	Rise in average temperature	0	0	Labor saving and automation of manufacturing equipment	[Risks and Opportunities] Response to market changes, especially in the agrochemicals business
	Acute	Increase in earthquakes, typhoons, and floods	0		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 Medium-term Management Plan SPEED 25/30:

- Reduction of carbon dioxide emissions (achieve FY2025 target) Reduction of energy intensity (achieve FY2025 target)
- Reduction of industrial waste volumes (achieve less than the previous fiscal year's generation)

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

Responding to Climate Change

Most of the greenhouse gases (GHG) emitted by Hodogaya Chemical are carbon dioxide*1. The GHG emissions for FY2023 are 35,600 t-CO2 (Scope 1*2 + Scope 2*3). In anticipation of increased production volumes in the future, we will address climate change from both mitigation and adaptation perspectives with a long-term view towards FY2030.



*2 Reduction targets for FY2030 are based on government-announced reduction targets by industry.

Roadmap for Reducing CO₂ Emissions

		2030 Toward achieving future goals			
Promotion of technological innovation	Process	Efforts to save energy Promotion of high efficiency through proce improvement Promotion of waste heat recovery (heat pur			
	Steam	• Efforts to save energy • Improvement — Active use of waste heat electrification			
Emissions from own production activities (Scope 1)	boiler	heat source			
Expansion of use of		Efforts to create energy			
renewable energy	Electricity	Introduction of renewable energy Efforts to save energy			
Externally purchased energy (Scope 2)	,	 Promotion of high efficiency Gradual switch to CO₂-free power sources usi renewable energy 			
Utilizing the ICP		Promoting ICP system			
system	_	Continue switching to LED lighting equipment Continue to introduce top-runner equipment Deduction of heat less through engagement			
Daily improvement through energy saving		Reduction of heat loss through appropriate management of heat insulating materials and Efficient operation			





Non-financial Targets

	FY2022 results	FY2023 results	FY2025 management targets
CO ₂ emissions (CO ₂ emission intensity)	45,700 t-CO ₂ (1.055 tons/net sales million JPY)	35,600 t-CO ₂ (0.805t tons/net sales million JPY)	43,400 t-CO ₂ (0.868 tons/net sales million JPY)
Reduction of energy intensity	0.636 kl/net sales million JPY	0.495 kl/net sales million JPY	0.606 kl/net sales million JPY
Reduction of industrial waste volumes	3,477t	2,523t	Less than the amount generated in the previous year

* The CO₂ emission intensity and energy intensity for FY2023 are affected by changes in product compositio

To promote the reduction of carbon dioxide emissions, we have also started implementing ICP (Internal Carbon Pricing), which assigns a price to carbon emissions, from FY2022.

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

- *1 Non-energy-originated CO₂ emissions are not included *2 Scope 1: Direct emissions

*3 Scope 2: Energy-originated indirect emissions



iety and challenge to carbor Study of hydrogen External procurement of green hydroger plant CO₂ recovery and use np) External procurement of green hydrogen of Fuel conversion (LNG → hydrogen) rate of Hydrogen-fired boilers introduced at all plants Introduction of cogeneration (hydrogen mixture → hydrogen-only combustion)

traps