



Environment



Contents

062	Environmental Activity Goals and Results
064	Climate Change Mitigation and Adaptation
065	Disclosure in Line with TCFD Recommendations
076	Contribute to Recycling Resources
076	Circular System for Carbon Resource
080	Resource Saving and Waste Reduction
083	Sustainable Use of Natural Capital
084	Disclosure in Line with TNFD Recommendations
087	Effective Use of Water Resources
089	Conserving Soil Environment
090	Protecting the Atmospheric Environment
092	Appropriate Chemical Substance Management
095	Environmental Activities: Supplementary Data

Contributing to the SDGs through Environmental Activities





Environmental Activity Goals and Results

Goal achieved or steadily progressing: ○ Goal not achieved: △

	Items	Boundary	Goals	Fiscal 2024 Results	Evaluation	Pages
Climate Change Mitigation and Adaptation	Greenhouse gas emissions Scope 1+2* ¹	Sumitomo Chemical Group Consolidated	Reduce 36% compared to fiscal 2020 levels by 2030 (Reduced 50% compared to fiscal 2013 levels)	Reduced 25% relative to fiscal 2020 (Reduced 42% relative to fiscal 2013)	○	Pages 064-075
	Scope 3* ²	Sumitomo Chemical Group Consolidated* ³	Reduce 14% relative to fiscal 2020 for categories 1 and 3* ⁴ by fiscal 2030	Reduced 26% relative to fiscal 2020	○	
	Unit energy consumption* ⁵	Sumitomo Chemical Group Consolidated	Improve more than 3% over the three years of the Corporate Business Plan (using fiscal 2021 as the base year for fiscal 2022–2024).	Improved 15% relative to fiscal 2021	○	
	Unit energy consumption in the logistics division	Sumitomo Chemical and Group companies in Japan* ⁶	Improve over 1% per year on average over five years	Worsened by an annual average of 0.5% over five years	△	

Note: Further details on goals based on the Act on the Rational Use of Energy and results are provided in the supplementary data (page 101).

*1 Scope 1: Direct greenhouse gas emissions from operators themselves (fuel burning and industrial processes), Scope 2: Indirect emissions from purchases of power and heat from outside the factory

*2 Scope 3: Emissions from the manufacturing and transportation of purchased raw materials

*3 Calculated for Sumitomo Chemical and Group companies listed on stock indices in Japan (Sumitomo Pharma Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; and Tanaka Chemical Corporation).

*4 Category 1: Purchased goods and services, Category 3: Fuel and energy activities not included in Scopes 1 or 2

*5 Energy consumption divided by consolidated net sales

*6 Within the scope of specified shippers according to the definition stipulated under the Act on the Rational Use of Energy

Goal achieved or steadily progressing: ○ Goal not achieved: △

	Items	Boundary	Fiscal 2024 Goals	Fiscal 2024 Results	Evaluation	Fiscal 2025 Goals	Pages
Contribute to Recycling Resources	The amount of recycled plastics utilized in manufacturing processes	Sumitomo Chemical and Group companies in Japan/ Overseas	200k tons/year by 2030	Approximately 11,440 tons	—	200k tons/year by 2030	Pages 076-082
	Promoting the waste recycling and reuse	Sumitomo Chemical and Group companies in Japan	Improve the waste recycling and reuse rate* ⁷ by 5% or more relative to fiscal 2020 by fiscal 2025.	Worsened 18% relative to fiscal 2020	△	Improve the waste recycling and reuse rate by 5% or more relative to fiscal 2020 by fiscal 2025.	
		Group companies overseas	Improve the waste recycling and reuse rate* ⁷ by 5% or more relative to fiscal 2020 by fiscal 2025.	Improved 6% relative to fiscal 2023	○	Improve the waste recycling and reuse rate by 5% or more relative to fiscal 2023 by fiscal 2025.	
	Reduce the amount of waste sent to landfills	Sumitomo Chemical and Group companies in Japan	Maintain waste volume at below fiscal 2020 levels to fiscal 2024	Reduced by 20% relative to fiscal 2020	○	Maintain waste volume at below fiscal 2020 levels to fiscal 2025	

*7 Waste recycling and reuse rate: (amount internally and externally reused + Amount of internally and externally recovered heat) / Waste emissions

Goal achieved or steadily progressing: ○

Goal not achieved: △

Items		Boundary	Fiscal 2024 Goals	Fiscal 2024 Results	Evaluation	Fiscal 2025 Goals	Pages
Sustainable Use of Natural Capital	Severe environmental accidents	Sumitomo Chemical and Group companies in Japan	0	0	○	0	Pages 083-094
	Effective use of water resources	Sumitomo Chemical	Promote effective and efficient use of water resources	Reduced usage 4.1% relative to fiscal 2023	○	Promote effective and efficient use of water resources	
		Group companies overseas	Improve unit water consumption by at least 1% on average by fiscal 2025 (FY2020 level as baseline)	Improved 28.2% relative to fiscal 2020	○	Improve unit water consumption by at least 1% on average by fiscal 2025 (FY2020 level as baseline)	
	Prevention of soil and groundwater contamination	Sumitomo Chemical and Group companies in Japan	Keep hazardous materials strictly within Company premises*1	0	○	Keep hazardous materials strictly within Company premises: Controlled on the premises.	
	Addressing fluorocarbons	Sumitomo Chemical and Group companies in Japan	- Eliminate the use of refrigeration units that use CFCs as coolants by fiscal 2025 - Eliminate the use of refrigeration units that use HCFCs as coolants by fiscal 2045	Systematically replaced refrigeration units that use CFCs and HCFCs as coolants	○	Plan equipment upgrades to eliminate all use of CFC and HCFC coolants in refrigeration units by fiscal 2025 and fiscal 2045, respectively	
	Prevention of air and water pollution	Sumitomo Chemical	Meet voluntary management criteria*2	0	○	Meet voluntary management criteria	
	Addressing PRTR	Sumitomo Chemical and Group companies in Japan	Keep total emissions from Group companies in Japan below the fiscal 2015 level	Reduced 25.4% relative to fiscal 2015	○	Keep total emissions from Group companies in Japan below the fiscal 2015 level	
	Reduction of VOC emissions	Sumitomo Chemical	Maintain VOC emissions reductions at 30% relative to fiscal 2000	Reduced emissions by 71% relative to fiscal 2000	○	Maintain VOC emissions reductions at 30% relative to fiscal 2000	
	Conservation of biodiversity	Sumitomo Chemical	Ensure compliance with "The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity"	Participated in biodiversity conservation initiatives through the nature symbiosis website promoted by the Ministry of the Environment	○	Ensure compliance with "The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity"	

*1 Keep hazardous materials strictly within Company premises: Controlled on the premises.

*2 Voluntary management targets that are stricter than the mandated levels and criteria of relevant laws and regulations, including agreements reached with local authorities.

► Environmental Data

Sumitomo Chemical's manufacturing sites and the production plants of major consolidated subsidiaries (21 companies in Japan and 32 companies overseas)
Principal consolidated Group companies, which account for up to 99.8% of Sumitomo Chemical's consolidated net sales for "Energy consumption and greenhouse gas emissions" (page 069).

Sumitomo Chemical

Sumitomo Chemical: All production sites of Sumitomo Chemical Co., Ltd.

Sumitomo Chemical (all worksites):

All production and non-production sites of Sumitomo Chemical Co., Ltd.

Group Companies in Japan

Sumika-Kakoushi Co., Ltd.; Sumika Plastech Co., Ltd.; Nippon A&L Inc.; Sumika Kowa Tech Co., Ltd.; Asahi Chemical Co., Ltd.; Ceratec Co., Ltd.; Sumika Assembly Techno Co., Ltd.; Sumika Agro Manufacturing Co., Ltd.; SC Environmental Science Co., Ltd.; Sumika Agrotech Co., Ltd.; Nihon Medi-Physics Co., Ltd.; Sumitomo Joint Electric Power Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; Tanaka Chemical Corporation; Sumitomo Pharma Co., Ltd.; SN Kasei Co., Ltd.; Sumika Polycarbonate Ltd.; Sanritz Corporation; Sumika High-Purity Gas Co., Ltd.

Overseas Group Companies

The Polyolefin Company (Singapore) Pte.Ltd., Sumika Polymer Compounds Dalian Co., Ltd., Sumika Polymer Compounds (Thailand) Co., Ltd., Zhuhai Sumika Polymer Compounds Co., Ltd., Sumitomo Chemical Asia Pte Ltd (MMA&S-SBR), Sumika Polymer Compounds UK Co., Ltd., Sumika Polymer Compounds France Co., Ltd., Sumika Polymer North America LLC, Sumika Polymer Compounds Turkey Co., Ltd., Sumika Polymer Compounds India Co., Ltd., Sumika Polymer Compounds Poland Co., Ltd., Sumitomo Chemical India Limited, Dalian Sumika Jingang Chemicals Co., Ltd., Dalian Sumika Chemphy Chemical Co., Ltd., Valent BioSciences LLC, McLaughlin Gormley King Company, Botanical Resources Australia Manufacturing Services Pty Ltd., Botanical Resources Australia Agricultural Services Pty Ltd., Sumitomo Chemical Brasil Indústria Química S.A., Sumitomo Chemical Chile S.A., Mycorrhizal Applications, Sumika Technology Co., Ltd., Sumika Huabei Electronic Materials (Beijing) Co., Ltd., Sumika Electronic Materials (Wuxi) Co., Ltd., Sumika Electronic Materials (Xi'an) Co., Ltd., Bara Chemical Co., Ltd., SSLM Co., Ltd., Dongwoo Fine-Chem Co., Ltd., Sumitomo Chemical Advanced Technologies LLC, Sumika Electronic Materials Vietnam Co., Ltd., Sumika Electronic Materials (Changzhou) Co., Ltd., XUYOU Electronic Materials (Wuxi) Co., Ltd.

Notes: Regarding affiliated companies and plants newly included in the boundary of environmental data reporting, results data are tabulated from the fiscal year when the survey was conducted as the Sumitomo Chemical Group

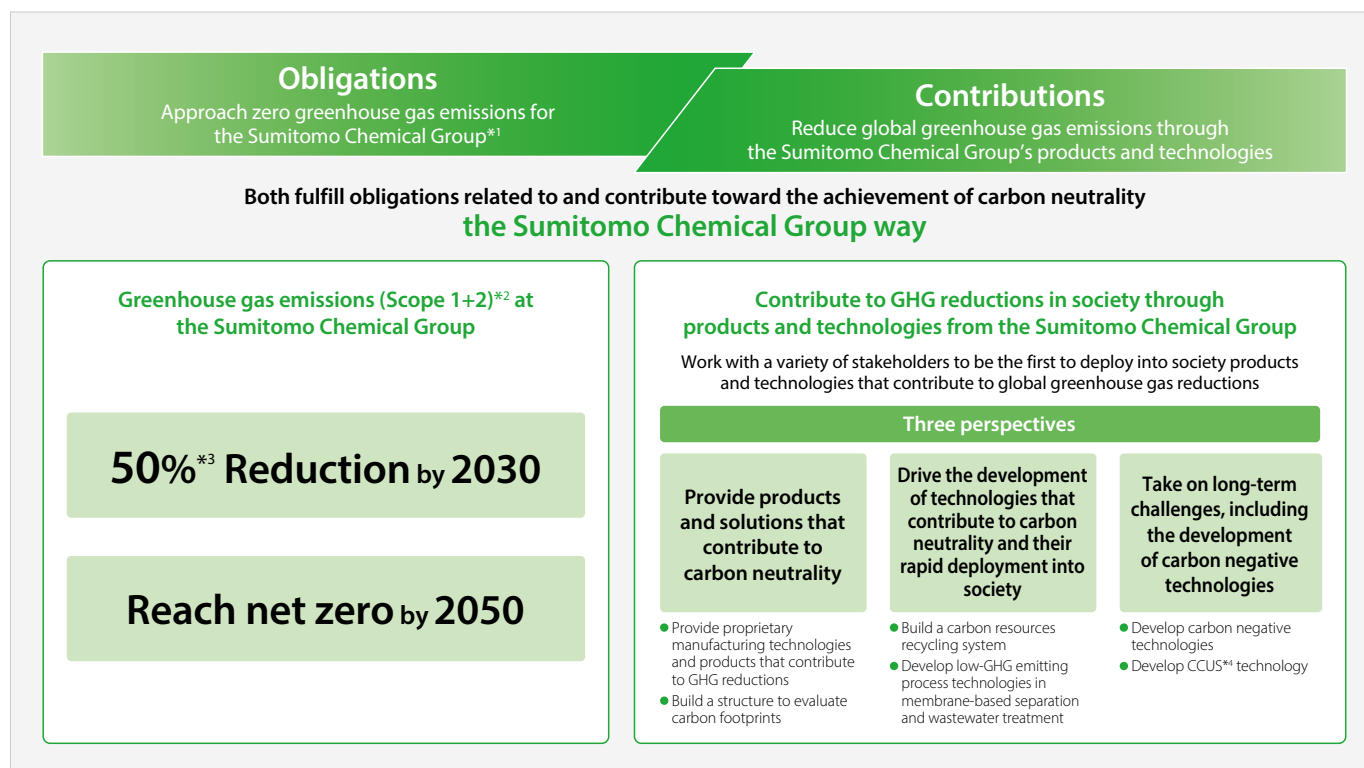
Climate Change Mitigation and Adaptation

Basic Stance

Sumitomo Chemical considers climate change a social issue on which chemical companies should take the lead. To swiftly address this problem, we are actively working to respond to risks and to seize opportunities by utilizing the technology we have cultivated to date. In addition, regarding disclosure related to climate change, we will continue gaining the trust of society by actively raising awareness of our initiatives using the framework of the TCFD recommendations.

Furthermore, with movements aimed at achieving carbon neutrality picking up steam in recent years, the chemical industry is being strongly called upon to create innovation and contribute to the achievement of carbon neutrality for society at large through its businesses. In December 2021, Sumitomo Chemical formulated and publicized its "grand design to achieve carbon neutrality," setting out a direction for its initiatives aimed at realizing carbon neutrality by 2050. In line with this, we will push ahead with initiatives that address both our obligation to bring our own greenhouse gas (GHG) emissions close to zero and the contribution we can make to promoting carbon neutrality for society as a whole through our technologies and products. To fulfill our obligation, we have committed ourselves to reducing our GHG emissions by 50% by 2030 (compared to the level of emissions in FY2013), and to achieving net zero GHG emissions by 2050. We will also contribute to the reduction of GHG emissions throughout society by engaging in external collaboration and otherwise facilitating innovation to develop products and technologies that serve this end, along with pursuing their social implementation, with the aim of helping communities around the world realize carbon neutrality.

■ Grand Design toward Achieving Carbon Neutrality



*1 Referring to Sumitomo Chemical Co., Ltd. and its consolidated subsidiaries in and outside Japan

*2 Scope 1: Greenhouse gases directly emitted by plants, such as in the use of fuels and in manufacturing products
Scope 2: Greenhouse gases emitted indirectly, such as through the purchase of electric power or steam from outside the Company's plants

*3 Compared to FY2013

*4 CCUS: Carbon dioxide Capture, Utilization and Storage



Disclosure in Line with TCFD Recommendations

Sumitomo Chemical expressed its support for the TCFD recommendations when they were published in June 2017. In line with the four recommended disclosure items, "Governance," "Risk Management," "Strategy," and "Metrics and Targets," the Group's efforts to address climate change issues are introduced on pages 065-075.

Governance

Sumitomo Chemical has established meetings and committees to deliberate important matters related to the management of the Group from a broad and diverse perspective in order to enhance its business execution and supervisory functions. Through these meetings and committees, the Company reports to the Board of Directors on issues related to the promotion of sustainability, including climate change.

Management Meetings:

Deliberation of important matters such as management strategies and capital investments, including agenda items and report items related to climate change response

Sustainability Promotion Committee:

Deliberations on important matters related to sustainability promotion

Responsible Care Committee:

Formulation of annual policies, mid-term plans, and specific measures to address climate change, as well as analysis and evaluation of performance

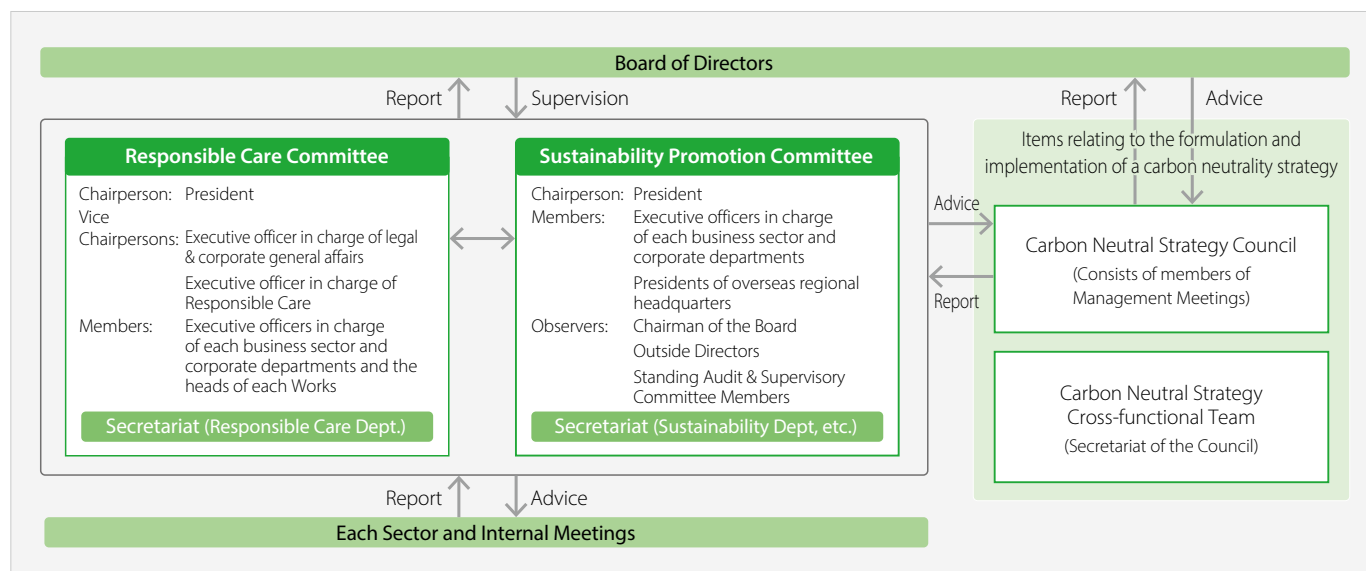
Carbon Neutral Strategy Council:

Deliberation and promotion of the grand design for achieving carbon neutrality by 2050

A wide range of specific issues related to energy and greenhouse gases (GHGs) are taken up for detailed discussion at Company-wide Science Based Targets (SBTs) GM Meetings, SBT Promotion Working Groups, Company-wide Energy Manager Meetings, Department Liaison Meetings on Global Warming, Group Company Information

Exchange Meetings, and other gatherings. Through the establishment of these various meetings, we have created a system capable of steadily and swiftly sharing important information in addition to managing energy and GHGs for Works, research laboratories, business sectors, and Group companies.

Structures for Responding to Climate Change



Meeting	Coordinator	Members	Content
Company-wide SBTs GM Meeting	Executive officer in charge of Responsible Care and Process & Production Technology & Safety Planning	General managers in charge of SBTs at individual worksites	Discussing various measures aimed at achieving SBTs
SBT Promotion Working Group	Process & Production Technology & Safety Planning Department general manager	Corporate Planning Office, Research Planning and Coordination Department, Process & Production Technology & Safety Planning Department, Responsible Care Department, and Environmental Burden Reduction Technology Development Group	Proposing various multi-faceted measures to achieve SBTs
Company-wide Energy Manager Meeting	Responsible Care general manager	Section managers in charge of Energy and GHGs at their worksites	Sharing and spreading information on initiatives at each worksite
Department Liaison Meeting on Global Warming	Responsible Care general manager	Section managers in charge of climate change action at the departmental and corporate levels	Sharing Company-wide policies and ESG issues
Group Company Information Exchange Meeting	Responsible Care general manager	Managers in charge of climate change action for Group companies	Sharing Group policies and issues and promoting best practices

Risk Management

To achieve sustainable growth, Sumitomo Chemical makes an effort to detect, at an early stage, various risks that may hinder the achievement of its business objectives, and takes proper measures. We focus on building and expanding our system relating to risk management so that we can promptly and properly address risks when they emerge.

Climate change issues are positioned as one of the Group's major medium- to long-term risks through, for example, an assessment from the perspective of the likelihood of their occurrence and impact, and are integrated into the Group's overall risk management process.

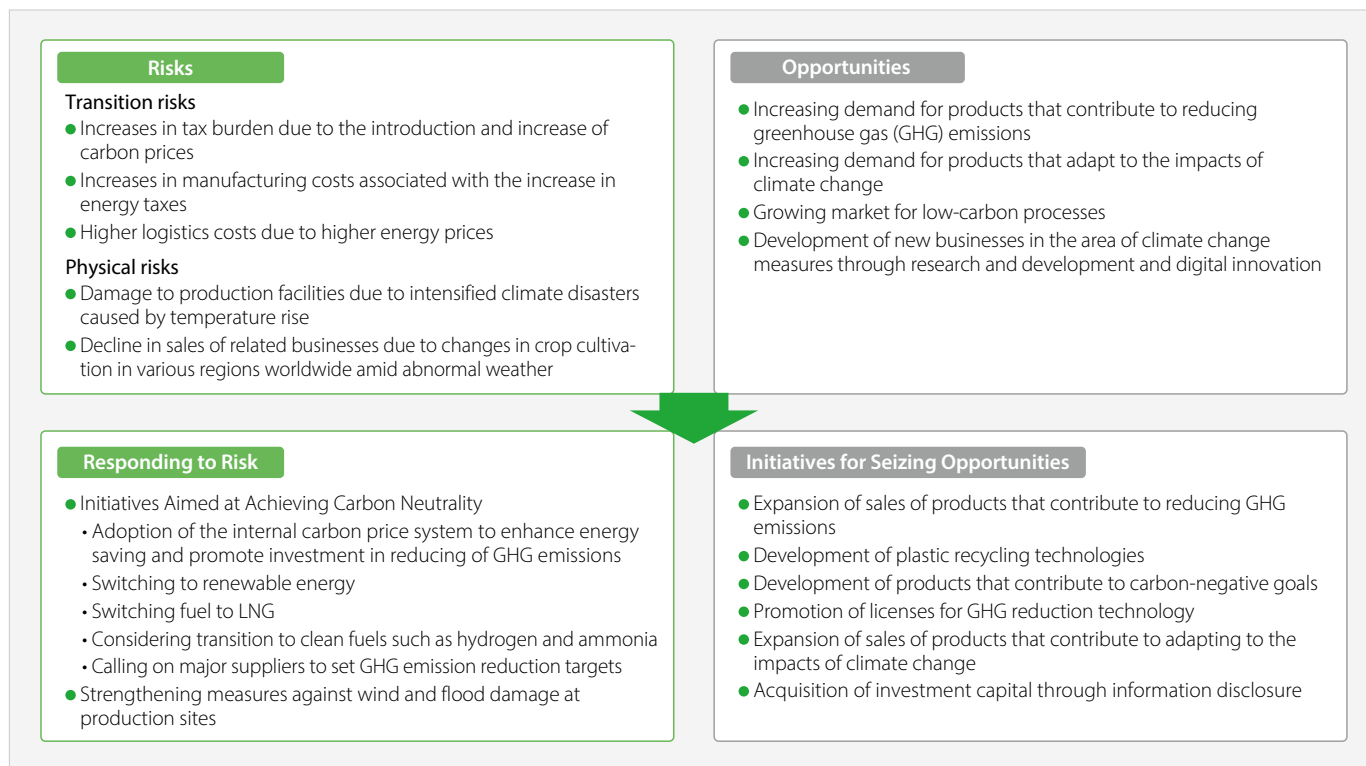
Specific Procedures

Each organization, including Group companies in Japan and overseas, conducts risk evaluations from the perspectives of probability of emergence (frequency) and financial impact in the event of emergence. The Internal Control Committee, which is chaired by the President, deliberates and identifies Company-wide material risks that need Group-wide initiatives, which may later be approved. The seriousness of each risk is determined by multiplying the probability of the individual risk by the financial or strategic impact on the Group's businesses.

Based on these processes, we have identified climate change-related risks and opportunities as detailed in the following table.

P.042 Risk Management

■ Risks and Opportunities



Strategy

In December 2021, Sumitomo Chemical formulated a grand design for achieving carbon neutrality by 2050. We will promote efforts to mitigate climate change from the perspectives of both "Obligation" (to bring the Group's GHG emissions close to zero) and "Contribution" (to reduce global GHG emissions through the Group's products and technologies).

In addition, as part of our efforts to adapt to climate change, we are striving to provide solutions adapted to global environmental changes, in such areas as agriculture and infectious diseases, and to strengthen new product development.

Investments to Achieve Carbon Neutrality

Starting in FY2019, in order to contribute to the realization of carbon neutrality for society as a whole, we calculate economic indicators reflecting internal carbon pricing (10,000 yen per ton) when GHG emissions are expected to increase or decrease for individual investment projects, and make investment decisions.

Investment Scale

We expect to invest a total of approximately 200 billion yen between FY2013 and FY2030 in carbon neutral-related investments.

Scenario Analysis

Scenario analysis, with regard to climate change, is a method in which we consider multiple scenarios, predict the impact of climate change and changes in the business environment due to long-term policy trends, and study the potential impact of these changes on our business and management. Currently, Sumitomo Chemical analyzes risks and opportunities with respect to both a scenario in which a variety of measures are taken to limit average global temperature increase to 1.5°C above the pre-industrial revolution levels, and a scenario in which countermeasures are not taken and temperatures increase by 4°C, evaluating the impacts of the two scenarios on our businesses and future actions that need to be taken.



■ Summary of the Scenario Analysis

● In blue: positive impact ● In red: negative impact

Scenario	Risks and Opportunities	Anticipated Situation (Example)	Impact Assessment	Action
Common for All Scenarios*1	Increasing Demands for Disclosure of Information	- Expansion of ESG investment - Increased demands for disclosure of the results of life cycle assessment - Introduction of international information disclosure guidelines related to the environment and sustainability, such as the ISSB Standards, CSRD and ESRS - Mandatory disclosure of emissions across the entire supply chain (Scope 3)	- Increased opportunity to get access to ESG investment capital by enhancing information disclosure - Improved rating in stakeholder assessments with regard to the disclosure of the amount of GHG emissions reduction calculated by life cycle assessment - Increased cost of compliance	- Formulate and release our Grand Design for achieving carbon neutrality - Disclose the amount of avoided GHG emissions (Science-Based Contributions) - Promote wider use of the carbon footprint calculation tool (CFP-TOMO™) - Respond to trends in regulations and movements by related institutions
1.5°C Scenario (Reduced GHG Emissions)	Increased Demand for Products and Technologies Contributing to the Mitigation of Climate Change	- Increasing investment and growing market for products and technologies contributing to the reduction of GHG emissions and for products and technologies related to recycling Examples - Growing markets for EVs and fuel cell vehicles (2030 to 2050) - Growing markets for components and materials for high-efficiency communication, due to change in consumer behavior (including expansion of the sharing economy and more efficient logistics with the use of IT) - Shift to energy sources with low environmental impact - Expansion of CCUS*2 (2030 onward) - Expansion of the circular economy, with the aim of reducing GHG emissions derived from fossil fuels (2030 to 2050) - Growing markets for energy-saving homes and building materials	- Increased demand for SSS*3-designated products - Increasing need for technological development for future SSS-designated products Examples - Components and materials for EVs and fuel cell vehicles - Increased sophistication in IT devices, demand for display and semiconductor materials necessary to reduce energy consumption, demand for functional materials and battery materials that contribute to the spread of smart mobility - Technology that contributes to reducing GHG emissions - Products and technologies for CO2 recovery, on the back of the expansion of CCUS - Carbon negative technologies - Recycling-related products and technologies - Biologically derived products and technologies - Energy-saving construction materials, such as heat-storing materials - Delay in recouping development costs in line with lagging shift in social needs and markets	- Enhance development and production systems for such materials as those used in displays, semiconductors, functional materials, and battery materials - Enhance development and production systems for materials for next-generation power devices and high-efficiency communications - Develop a process for recycling lithium-ion batteries - Promote licensing of technologies that contribute to reducing GHG emissions (for example: the hydrochloric acid oxidation process and the propylene oxide-only process) - Develop technologies relating to CO2 recovery - Develop products that contribute to negative carbon emissions (for example: agricultural materials utilizing fungi, resins produced from microbes) - Develop plastic recycling technology and build a recycling chain in cooperation with waste management companies, then deploy them in society Examples - Mechanical recycling of vehicles - MMA chemical recycling - Develop technology for biologically derived products and stoke demand for certified products - Develop technology for and expand sales of heat storage material products - Promote the feedstock shift to green ammonia - Active development of a brand to visualize environmental value (Meguri™) - Advocacy activities for systems related to the use of products that mitigate environmental burden
	Increased Regulation on GHG Emissions	- Higher carbon prices (in developed countries, USD 140/ton for 2030, USD 250/ton for 2050)*4 - Introduction of economic measures, including carbon taxes, carbon levies, and emissions trading systems, for green transformation (GX) systems - Stronger requirements for GHG emissions reductions and making energy-saving performance mandatory - Phased abolishment of subsidies for fossil fuels (in India and Southeast Asia, etc.) - Accelerating transition to a circular society and increased regulation - Increase in calls to promote use of renewable energy from customers	- Increased operational costs due to higher energy taxes including carbon prices (Assuming volume of GHG emissions in fiscal 2050 is about 5.55 million tons/year (Scope 1+2), the same level as in fiscal 2024, and a carbon price between 22,000–39,000 yen per ton of CO2, our expense burden will increase by about 130-220 billion yen per year.) - Lower utilization of high-energy consumption production facilities - Increase in utility expenses due to an increased proportion of renewable energy	- Consider carbon-neutral petrochemical complexes and ports - Switch to highly efficient equipment by actively utilizing government subsidies - Switch to renewable energy - Switch fuel to LNG - Rationalization research for manufacturing processes - Develop technologies to capture, separate, and utilize GHG, and deploy them in society - Promote the deployment of GHG emission removal equipment - Consider transition to clean fuels such as hydrogen and ammonia
	Increased Cost of Raw Materials	- More use of resources from circular systems and progress in the transition to lower environmental impact processes - Increased costs due to more use of recycled materials - Increase in calls for green procurement	- More difficult to procure raw materials - Lower profitability of the existing businesses	- Diversify raw material sources - Evaluate the use of recycled raw materials - Evaluate self-manufacture of raw materials with unstable supply - Shift to a local production, local consumption model (for products where raw material procurement costs make up a relatively high proportion of the price) - Optimization of business structure through corporate cooperation

*1 Common for all scenarios: Situations that can be expected in both the 1.5°C scenario (reduced GHG emissions) and the 4°C scenario (business as usual)

*2 CCUS: Carbon dioxide Capture, Utilization and Storage *3 Sumika Sustainable Solutions *4 Assumptions based on World Energy Outlook 2024



● In blue: positive impact ● In red: negative impact

Scenario	Risks and Opportunities	Anticipated Situation (Example)	Impact Assessment	Action
4°C Scenario (Business as Usual)	Increased Demand for Products and Technologies Adaptable to Climate Change	- Growing market for crops resistant to environmental changes such as temperature rise and drought - Spread of infectious diseases due to the impact of climate change	- Increased demand for SSS-designated products - Increased need for technological development for future SSS-designated products - Examples - Biorationals and soil amendments - Agrochemical products adaptable to the change in crop growth - Agents for prevention and treatment of infectious diseases	- Develop products such as biorationals - Provide solutions that respond to global changes in the environment for agriculture and infectious diseases - Enhance sales and marketing structures and new product development structures with an eye on changes in demand in targeted markets
	Intensified Climate Disasters due to Temperature Rise	- More impact on plant operations - Expanded impacts on product storage and logistics - Rising sea level, damage from storm surges and floods, and heat waves - Damage to farmland due to droughts and soil degradation	- Facilities located on seashores and river banks cease operations - Decreased cost competitiveness of plants due to increased costs for measures to be prepared for disasters - Decreased demand due to lower agricultural productivity	- Manage and respond to risks from a business continuity planning perspective - Expand and diversify the regions in which we do business

Metrics and Targets (Risk)

As a metric for climate-related risks, we are the first diversified chemical company in the world to utilize GHG emission reduction targets certified as Science Based Targets (SBT). Our Group's*¹ GHG emissions (Scope 1 + 2) reduction target for 2030 is 50%*², and has been certified under SBT's Well Below 2.0°C standard. Until 2030, we aim to achieve this goal by utilizing the best available technology (BAT) in the manufacturing process at existing plants and by making thorough energy conservation and fuel switching in the manufacturing process.

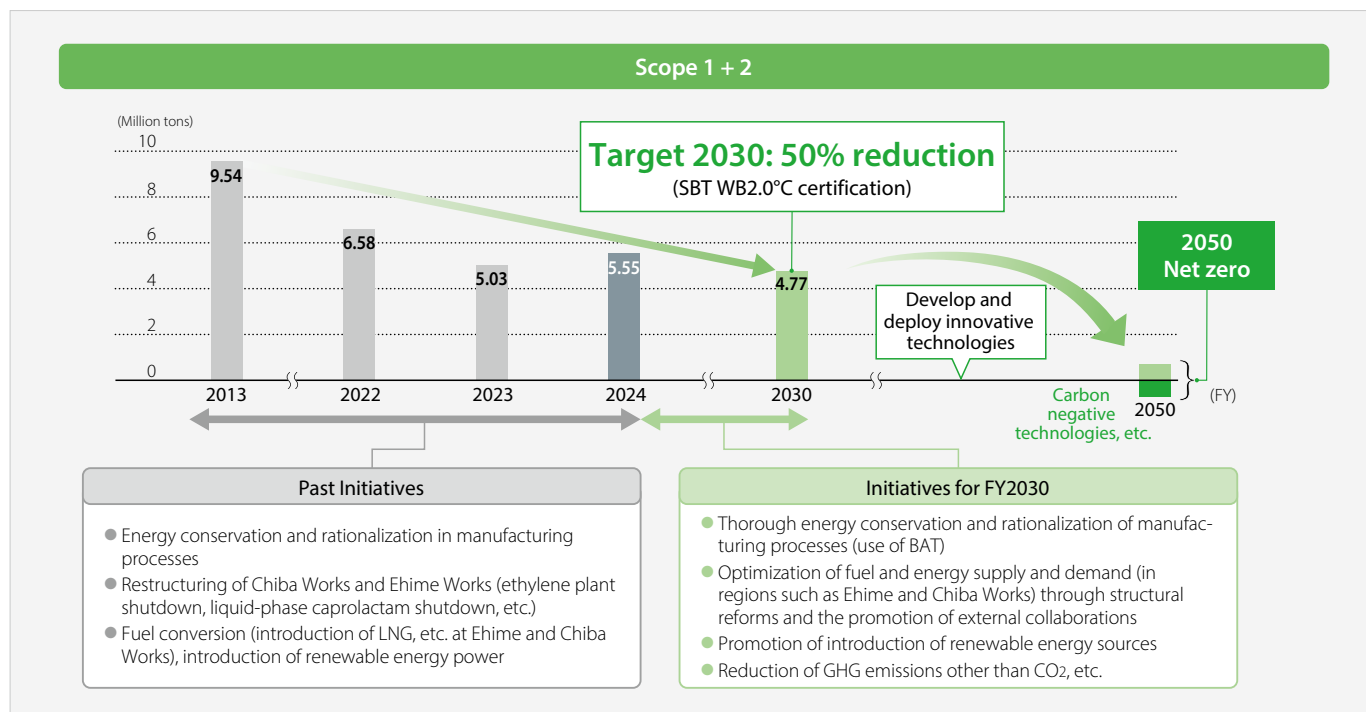
On the other hand, to reach net-zero emissions by 2050, it will be difficult to respond only with existing technologies, and innovative technologies such as carbon-negative emissions and CCUS*³ will be necessary. We will continue to study the development of them and their early implementation.

*1 Sumitomo Chemical + domestic and overseas consolidated subsidiaries

*2 Compared to FY2013

*3 Capture, effective utilization, and storage of CO₂ emitted from plants, etc.

GHG Emissions Trends and Reduction Targets (Scope 1+2)





★: Assured by an independent assurance provider

FY2024 Energy Consumption and Greenhouse Gas Emissions

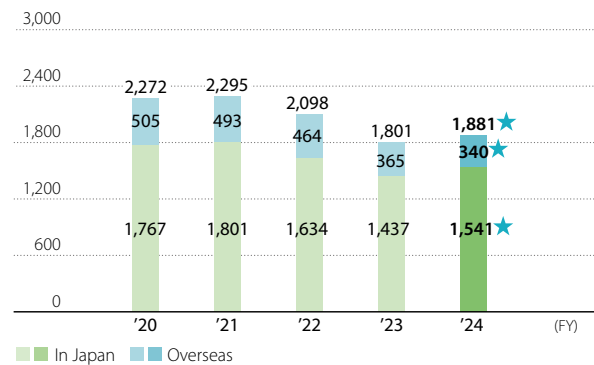
The Group's greenhouse gas emissions for fiscal 2017 onward are calculated with reference to the GHG Protocol (refer to page 173 "Calculation Standards for Environmental and Social Data Indicators"). The boundary of calculation has been expanded to include principal consolidated Group companies, which account for up to 99.8% of consolidated net sales.

Greenhouse Gas Emissions ★(Thousand tons of CO₂e)

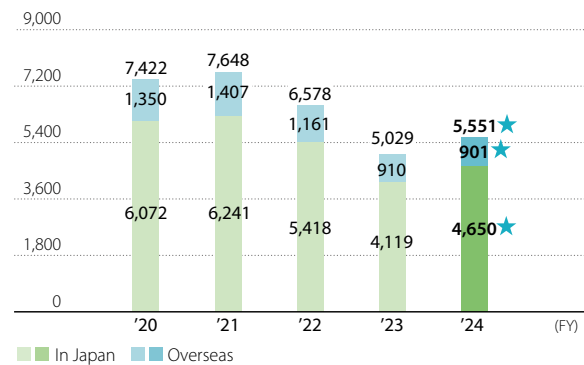
	Sumitomo Chemical and Group Companies in Japan	Overseas Group Companies	Total
Scope 1	4,529	306	4,836
Scope 2	121	595	715
Total	4,650	901	5,551

Note: Biomass-derived emissions were 0 thousand tons of CO₂e**Energy Consumption (GHG Protocol standards)**

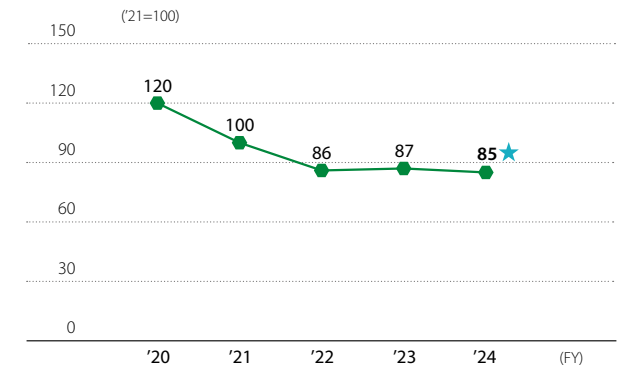
(Thousand kl of crude oil)



Note: • In line with the GHG Protocol standards, we now include the amount of energy consumed in the production of power and steam sold to external parties by Sumitomo Chemical Group.

Greenhouse Gas Emissions (GHG Protocol standards)(Thousand tons of CO₂e)

Note: • Having adopted the GHG Protocol standards for our GHG emission disclosures, we now include the following data: CO₂ emissions from energy sold to external parties by the Group; CO₂ emissions from energy use attributable to Sumitomo Chemical's non-production sites; CO₂ emissions from non-energy sources not included in the scope of the Act on Promotion of Global Warming Countermeasures.

Unit Energy Consumption Index (GHG Protocol standards)

Notes: • The figures are indexed to energy consumption (GJ) per unit of sales
• Improve more than 3% over the three years of the Corporate Business Plan (using fiscal 2021 as the base year for fiscal 2022–2024).

★: Assured by an independent assurance provider

GHG Emission Reduction Targets (Scope 3)

Scope 3

Reduce GHG emissions (Scope 3: Categories 1 and 3) of major Group companies

by 14% from the FY2020 level by FY2030 (SBT WB2.0°C certification)

Supplier Engagement Initiatives

We are promoting climate actions through dialogue with our suppliers, and at the same time setting reduction targets for indirect GHG emissions (Scope 3) across the supply chain by 2030, together with reduction targets for GHG emissions from our business activities (Scope 1 and 2). Through these initiatives, we have renewed our certification under the Science Based Targets (SBT) initiative at the “well-below 2°C” level. As one example, we explain our group’s efforts to achieve carbon neutrality to our key domestic suppliers annually while requesting their cooperation in reducing GHG emissions. In recognition of these efforts, the company has been selected as a “Supplier Engagement Leader,” the highest rating in the Supplier Engagement Rating conducted by CDP, an international NGO, for six consecutive years.

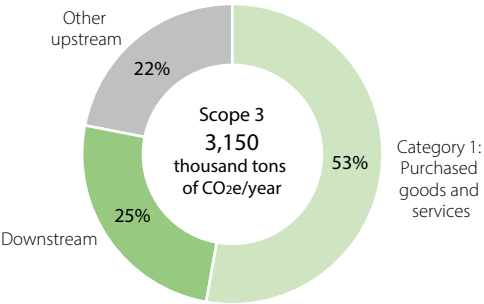


Status of Scope 3 GHG Emissions

(Thousand tons of CO2e/year)

Category	Emissions				
	FY2020	FY2021	FY2022	FY2023	FY2024
1. Purchased goods and services	2,346	2,441	2,261	1,858	1,661★
2. Capital goods	164	141	146	186	216
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)	585	559	550	512	488★
4. Upstream transportation and distribution	53	55	53	50	48★
5. Waste generated in operations	41	58	37	33	27★
6. Business travel	2	3	7	6	5
7. Employee commuting	11	9	9	9	10
8. Upstream leased assets	<1	<1	<1	<1	<1
9. Downstream transportation and distribution	<1	<1	<1	<1	<1
10. Processing of sold products	—	—	—	—	—
11. Use of sold products	42	45	34	24	23★
12. End-of-life treatment of sold products	806	788	772	662	666
13. Downstream leased assets	—	—	—	—	—
14. Franchises	—	—	—	—	—
15. Investments	—	—	—	—	—

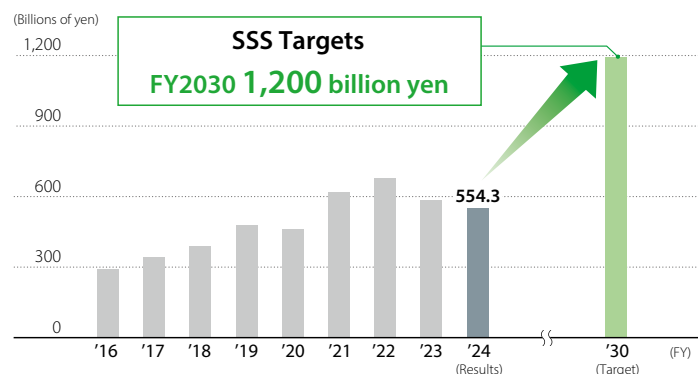
- Notes:
- For Scope 3 data, indirect greenhouse gas emissions from business activities throughout the supply chain are calculated separately by category and then added together.
 - Calculated for Sumitomo Chemical and Group companies listed on stock indices in Japan (Sumitomo Pharma Co., Ltd.; Koei Chemical Co., Ltd.; Taoka Chemical Co., Ltd.; and Tanaka Chemical Corporation).
 - Category 4 does not include Taoka Chemical Co., Ltd., but includes Nippon A&L Inc.
 - Category 11 figures are N2O converted into CO2



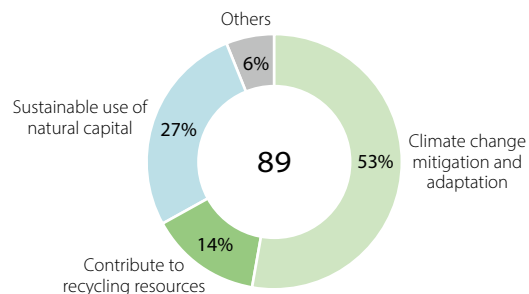
Metrics and Targets (Opportunities)

Sumika Sustainable Solutions (SSS) is used as a metric for climate-related opportunities. SSS is an initiative in which we designate those of our Group's products and technologies that contribute to the fields of climate change mitigation and adaptation, contribute to recycling resources, and sustainable use of natural capital in order to promote their development and spread. The sales revenue from certified products for FY2024 reached 554.3 billion yen. We will continue to advance our efforts towards achieving the FY2030 target of 1.2 trillion yen.

Sumika Sustainable Solutions' Sales Revenue Targets



Percentage of products and technologies in each certified field (FY2024)



Note: Number of SSS designated products and technologies 89

Science Based Contributions (SBC) Avoided GHG emissions through products and technologies

In order to more clearly demonstrate the contribution of our products and technologies to carbon neutrality (CN), we have established a new indicator, Science Based Contributions. By calculating and visualizing the contribution to avoided greenhouse gas (GHG) emissions, we will accelerate our efforts to achieve CN for society as a whole through our products and technologies. The SBC quantitatively and scientifically calculates the amount of GHG reductions achieved in society through the use of SSS designated products and technologies that we have sold and provided. The figures are calculated based on the product CFP and sales volume of the subject products and the production capacity of the licensed plants, etc. The calculation method is validated by external experts. We will strive to promote understanding of the contribution of our products and technologies to society through active disclosure of information to our stakeholders using the SBC, and promote efforts to realize CN around the world.

SBC results		FY2023	7.1 million tons	FY2024	6.6 million tons
Item	Beneficiaries	FY2023 (million tons)	FY2024 (million tons)		
SSS Technology	Propylene oxide (PO)-only process, Hydrochloric acid oxidation process	Licensees	2.7	2.9	
SSS End Products	Methionine, Flumioxazin, etc.	Users	4.4	3.7	
SSS Materials & Components	Components for Secondary Batteries and aircraft, etc.	Users	Not applicable (under consideration)		

Calculation Method	
SSS Technology	- PO-only process is compared to the average of other PO manufacturing processes, such as the chlorine process, and hydrochloric acid oxidation process is compared to the salt electrolysis process. - Calculation of reduction contribution by licensees.
SSS Products	- Methionine is compared to feed without additives. The contribution to the reduction of N₂O in poultry waste was calculated.* - Regarding the Flumioxazin, contributions to emissions reduction achieved by no-till farming in the U.S. were calculated by comparing no-till farming for soybean cultivation with the conventional farming method.

* In addition to the SBC, we conduct assessments of some products using the Life-cycle Impact assessment Method based on Endpoint modeling (LIME).

Contributing through Business — Sumika Sustainable Solutions (SSS)

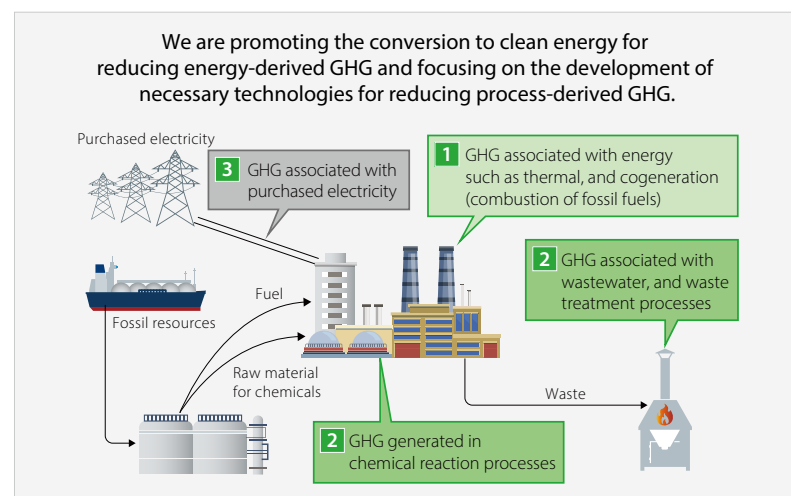
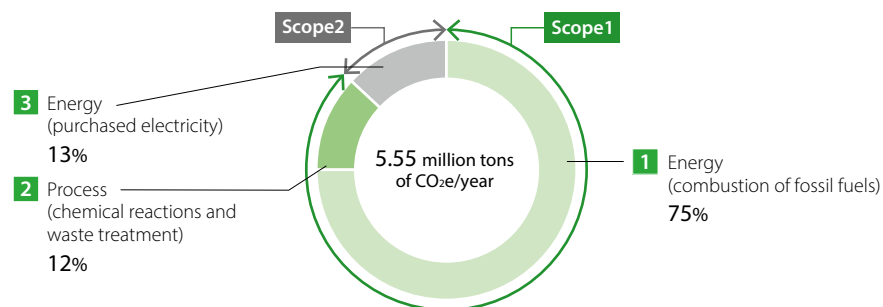
<https://www.sumitomo-chem.co.jp/english/sustainability/management/promotion/sss/>

Specific Initiatives for “Obligation”

Major Sources of GHG Emissions from Chemical Plants

The chemical industry is an industry in which raw materials are converted into products through chemical reactions that are driven by electricity, heat from steam, and other forms of energy. In FY2024, 75% of our GHG emissions came from **1** Energy (combustion of fossil fuels), 12% from **2** Process (chemical reactions and waste treatment), and 13% from **3** Energy (purchased electricity). We aim to reduce GHG emissions by focusing on the conversion to clean energy for energy-derived GHG and on the development of necessary technologies for process-derived GHG.

GHG Emissions in FY2024



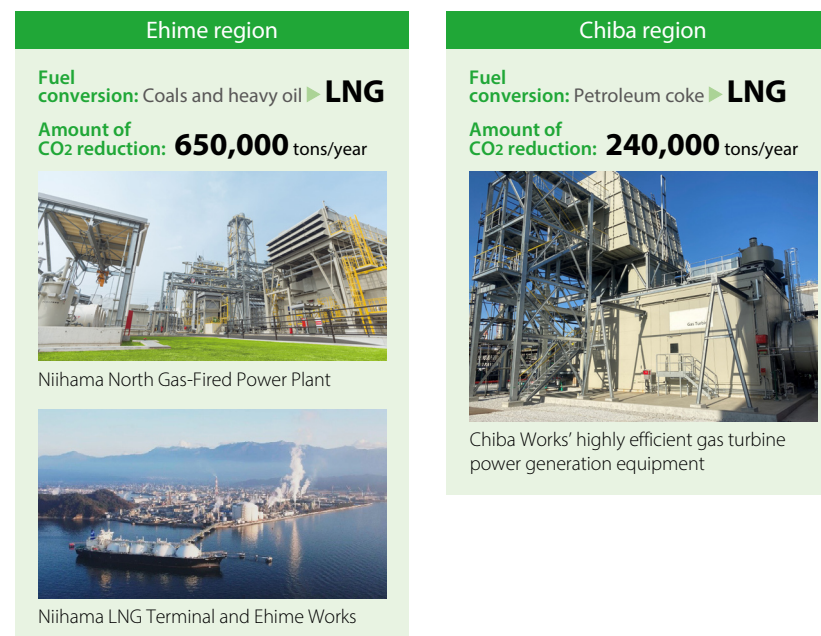
1 Reduction of GHG Emissions from Energy (combustion of fossil fuels): Fuel Conversion

Sumitomo Chemical is working to reduce the Group's GHG emissions as an SBT-certified company. At plants in Japan, we are introducing highly efficient gas turbine generators and decommissioning a number of existing boilers. Aiming to reduce carbon emissions, we are switching from using conventional high CO₂-emission fuels like coal, petroleum coke, and heavy oil to using low CO₂ emission intensity fuels like liquefied natural gas (LNG).

In March 2022, at Ehime Works, Niihama LNG Co., Ltd.* began operating the Niihama LNG Station, which supplies LNG instead of conventional coal or heavy oil. In November 2022, Sumitomo Joint Electric Power Co., Ltd. started operations of the Niihama North Gas-Fired Power Plant, a facility it constructed that uses LNG. These efforts will result in a 650,000-ton annual reduction in CO₂ emissions. In January 2024, we began operating highly efficient gas turbine power generation equipment at Chiba Works that uses LNG instead of the existing petroleum coke. With the construction of this equipment, we will reduce annual CO₂ emissions by over 240,000 tons (equivalent to around 20% of the CO₂ emitted by Chiba Works). It will also enable the supply of power to neighboring Group companies as we work hard to reduce GHG emissions across the entire Group.

* Funded by Tokyo Gas Engineering Solutions Corporation, Shikoku Electric Power Co., Inc., Shikoku Gas Co., Ltd., Sumitomo Joint Electric Power Co., Ltd., and Sumitomo Chemical

Fuel Conversion and CO₂ Emissions Reduction



In addition, the following initiatives are being implemented with respect to the conversion from LNG to cleaner fuels.

Transition to Clean Fuels

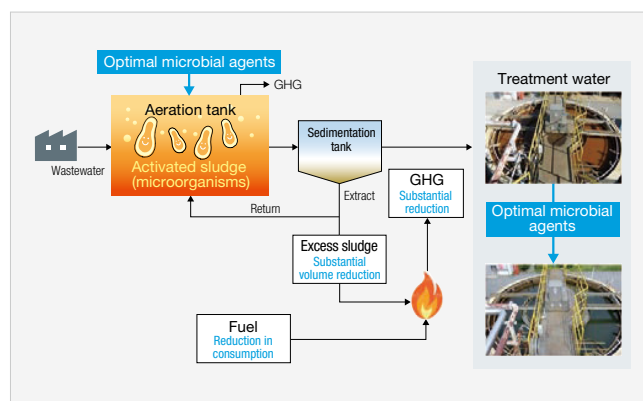
Hydrogen and ammonia are gaining attention as clean fuels that do not emit CO₂ during combustion, with ammonia also being recognized as a hydrogen carrier. We are continuing to secure a stable supply of ammonia, and focusing on clean ammonia by the most effective use of the existing large tanks in the Niihama area of Ehime Prefecture. We are also participating in regional collaboration initiatives to build a supply chain for ammonia and hydrogen for future fuel applications.

P.075 Climate Change Mitigation and Adaptation: Initiatives through Regional Collaboration

We will continue to study the possibility of making each power generation facility cleaner (zero GHG emissions) based on the development status of ammonia and hydrogen combustion technologies, biomass fuel market trends, and regional collaboration efforts.

2 Reduction of GHG Emissions from process (chemical reaction and waste treatment): Innovation in Wastewater Treatment Technology

Sumitomo Chemical is promoting biotechnological wastewater treatment. Wastewater treatment is an essential initiative to prevent water pollution and promote the recycling and reuse of water resources, however there was the issue that it requires a lot of energy and causes GHG emission when incinerating excess sludge. To address this issue, we have improved wastewater treatment capacity while reducing the amount of sludge generated, GHG emissions associated with wastewater treatment, and fuel consumption through the use of optimal microbial agents.



3 Reduction of GHG Emissions from Energy (purchased electricity): Use of renewable energy

From November 2021, Sumitomo Chemical's Oita Works switched its purchased electric power to 100% renewable energy-derived power, reducing GHG emissions from the Works by around 20%. In addition, at the same Works, we switched the fuel used on site from heavy oil to the low CO₂ emission intensity city gas and are working to optimize the plant operation conditions, achieving a GHG reduction of around 10%. Through these efforts, we realized a total reduction in GHG emissions of around 30% compared to fiscal 2013 at the Works.

Initiatives Aimed at Reducing GHG Emissions at Each Worksite

Each Sumitomo Chemical worksite helps reduce GHG emissions, including in the following ways: installing the latest highly efficient equipment; introducing rationalization and energy-saving measures in production processes; switching to lower-carbon fuels and other forms of energy; installing LED lighting; and soliciting employee suggestions on how to further improve our energy-saving efforts. Furthermore, regarding cleanrooms and other facilities that are highly specialized and difficult to manage, we have launched initiatives in cooperation with experts. Information on the state of these activities is exchanged at Company-wide Energy Manager Meetings, at which representatives from each worksite gather in one location to work on reducing the GHG emissions of the Company as a whole.

Chiba Works: Introduction of EV Bus

At Chiba Works, we introduced EV bus for commutes and for moving between plants. The purpose is to help reduce CO₂ emissions and raise awareness of carbon neutrality among employees. The body of the bus is wrapped in a design that was solicited from employees. In the near term, we plan to use renewable energy when charging the bus and, going forward, intend to use it for more than just transportation. For example, it can be used as emergency power source at times of natural disaster as well as for a wide range of other applications.



EV bus

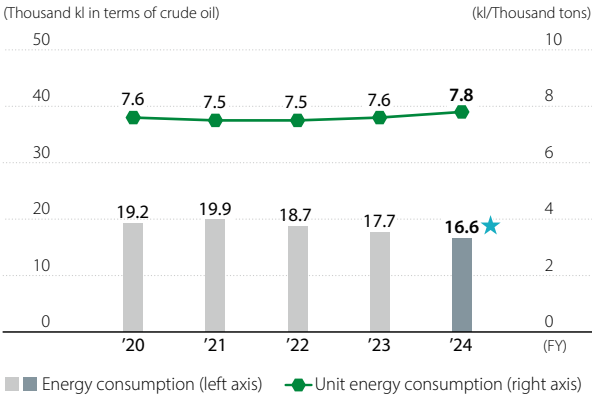
★: Assured by an independent assurance provider

Logistics Initiatives

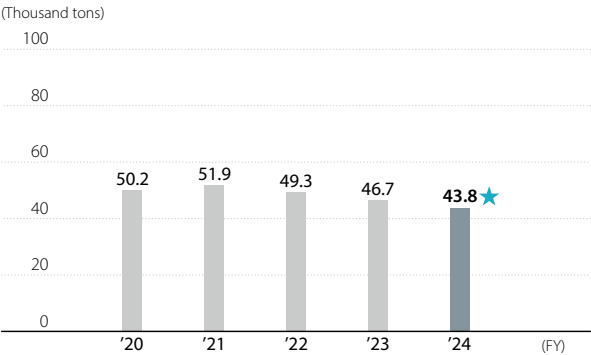
Sumitomo Chemical continues to promote modal shift, or transportation by more efficient and environmentally friendly modes, such as rail and ship instead of trucks. In fiscal 2024, the overall volume of cargo transported fell year on year, and, as a result, energy consumption (crude oil equivalent) and carbon dioxide emissions decreased. However, unit energy consumption increased 1.4% overall due to a decrease in the share of coastal transportation. This was an average 0.5% deterioration over the past five years. We will continue aiming to improve unit energy consumption by our target of 1% or more.

Reduction of Environmental Impact in Logistics Operations (Sumitomo Chemical and a Group company in Japan)

Energy Consumption and Unit Energy Consumption



CO2 Emissions



Note: Calculated for Sumitomo Chemical and a Group company in Japan (specified consigner Nippon A&L Inc.)

Specific Initiatives for “Contribution”

Establishment of Carbon Resource Recycling System

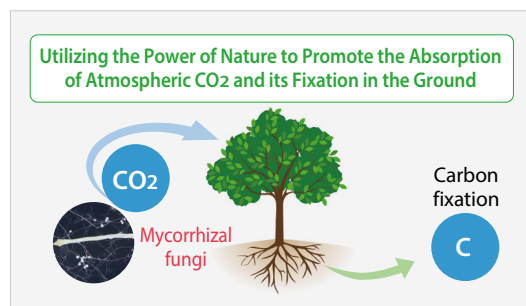
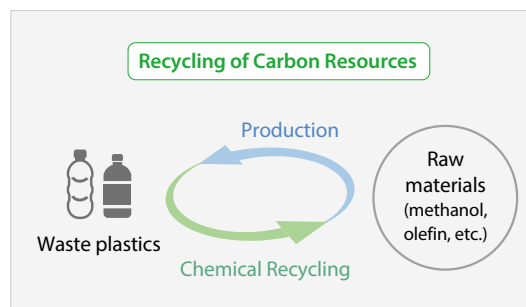
We are developing chemical recycling technologies to convert garbage and waste plastics into basic raw materials for chemicals, such as methanol, ethanol, and olefins, and to use them as raw materials for new plastics.

P.076 Contribute to Recycling Resources

Challenges to Carbon Negative Emissions

We are developing a technology whereby attaching useful micro-organisms existing in soil to the roots of plants and allowing them to coexist, we not only promote the absorption of CO₂ by plants through photosynthesis, we also fix CO₂ in the ground in the form of carbon compounds. This will enable ordinary fields, forests, and other natural spaces to absorb and fix even greater amounts of CO₂, contributing a net negative amount of carbon to the atmosphere.

P.093 Sustainable Use of Natural Capital



External Cooperation Initiatives

Dissemination efforts of Carbon Footprint of Products (CFP)* calculation tool

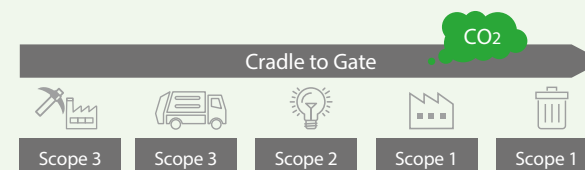
Although the evaluation of product CFP is essential to reduce GHG emissions in society, it is not easy to analyze the CFP of chemical products due to the complexity of their manufacturing processes. In response, we have developed our own automated calculation tool and calculated the CFP of approximately 20,000 products. We provide the tool free of charge to other companies. It is now used by many companies via collaboration with the Japan Chemical Industry Association. Additionally, we are considering expanding the use of CFP-TOMO™ for assessing environmental impacts other than GHG emissions, such as water.

* Greenhouse gas emissions from each stage of the product lifecycle, from procurement of raw materials to manufacturing, use, and disposal, expressed in terms of CO₂ emissions.

Our original calculation tool speeds up the calculation of CFP for our products

Created the original automatic CFP calculation tool

- Built based on commercially available software (Microsoft Access/Excel)
- Prepared multiple calculation models accounting for the characteristics of chemical manufacturing processes (co-products, by-product fuels, steam generation, etc.) (Choose from the pull-down menu of models and execute calculation)
- Can easily calculate carbon footprint for each stage (intermediates or final product). E.g., raw material to Intermediate A to Intermediate B ... to final product.



External Cooperation Initiatives

Initiatives through Regional Collaboration

Since there are limits to what individual companies can do to achieve carbon neutrality, it is necessary to accelerate regional collaboration with external parties such as companies outside our group and government agencies. In addition to participating in the Keiyo Coastal Industrial Complex Council on Carbon Neutrality, which was established in November 2022 mainly in Chiba Prefecture, we are also studying ways to achieve carbon neutrality, such as securing biomass feedstock and recovering

waste, in cooperation with Maruzen Petrochemical Co. Ltd. and Mitsui Chemicals, Inc. In the Shikoku and Setouchi region, we are collaborating on efforts to construct a clean ammonia supply chain by participating in “the Council for Utilizing Namikata Terminal as a Hub for Introducing Fuel Ammonia”, which was launched primarily by Mitsubishi Corporation and Shikoku Electric Power Company.

Contribute to Recycling Resources

For sustainable use of resources, we need to reduce the consumption of natural resources while at the same time efficiently circulating the resources we have. In addition to waste management and effective use of resources at our offices and Works, Sumitomo Chemical is working on the development and social implementation of carbon recycling technologies for plastics and other resources.

Circular System for Carbon Resource

Basic Stance

To realize a circular system for carbon resources including plastics, we are working to reduce, reuse, and recycle (mechanical recycling, chemical recycling) products at each stage of the plastic value chain. These efforts also extend beyond the plastic value chain. We are working to develop technology that utilizes the carbon contained in organic matter as a renewable resource, as well as to develop plastic products that use that carbon as a raw material.

In addition, the Group formulated the Sumitomo Chemical Group Basic Policy Towards a Circular System for Plastics in 2020 to work towards building a circular system for plastics and resolving plastic waste problems.

Sumitomo Chemical Group Basic Policy Towards a Circular System for Plastics

https://www.sumitomo-chem.co.jp/english/news/files/docs/20200601e_policy.pdf

Management System

We are actively promoting research and development on chemical recycling technologies within research groups dedicated to reducing environmental impact at the Essential & Green Materials Research Laboratory. In addition to chemical recycling of plastics, we have also been developing technologies and products that contribute to the circulation of various carbon resources, such as the appropriate utilization of biomass feedstocks.

In pursuit of practical, socially beneficial applications, we are working to commercialize chemical and plastic products that utilize this revolutionary technology, especially through the Business Development Office for Circular Carbon Economy.

Targets and Results

Sumitomo Chemical has identified "contribution to recycling resources" as one of our material issues to be addressed as management priorities, and we have set the amount of recycled plastic resources used in the manufacturing process as a KPI for this purpose. We are working to replace 200k tons/year of plastic used in our manufacturing process with recycled resources by 2030.

KPI: The amount of recycled plastics utilized in manufacturing processes	
Target	200k tons/year by 2030
Result	FY2024 Approximately 11,440 tons

Examples of Initiatives

Development of the Meguri™ brand

Meguri™ is a brand of plastic products and chemicals that can be obtained through recycling technology and contribute to reducing environmental impact.

Meguri™ products are the crystallization of the latest recycling technologies and the environmentally friendly technologies that we have cultivated in various fields as a diversified chemical company. We will expand the Meguri™ product lineup and increase production and sales of these products, thereby playing a role in realizing a circular economy.



The brand name Meguri™ means "circularity" in Japanese. The design of the icon is a deformed version of the kanji character "廻", which means "circularity" in Japanese.

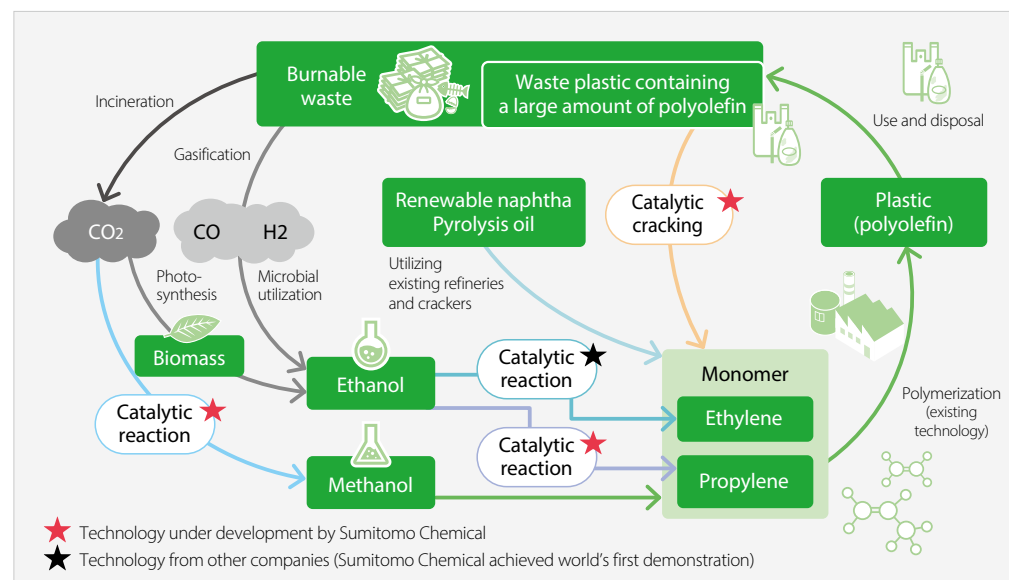
Sumitomo Chemical Circular System for Plastics Website

<https://www.sumitomo-chem.co.jp/circular-plastics/en/>

Chemical Recycling

We promote development of chemical recycling technologies through multiple circular carbon routes in parallel by combining our catalyst design and chemical process design technologies, in collaboration with external parties. Utilization of these technologies will reduce fossil resource use and plastic waste emissions, as well as GHG emissions from plastic waste incineration.

Overview of Carbon Resource Recycling (Chemical Recycling), Including Plastics



Examples of chemical recycling through collaboration with other parties

	Technology	Cooperating Partners	Reference
①	Polyolefin production from waste-derived ethanol	SEKISUI CHEMICAL CO., LTD.	Completion of test production facility in April 2022
②	Direct olefination of waste plastics	Maruzen Petrochemical Co., Ltd. Muroran Institute of Technology	NEDO *1 GI Fund Projects *2 (Project scale: approx. 25.30 billion yen)
③	Highly efficient methanol production from CO ₂	AIST Shimane University	NEDO GI Fund Projects
④	Olefin production from alcohols	AIST	(Project scale: approx. 24.08 billion yen)

*1 National Research and Development Agency, New Energy and Industrial Technology Development Organization (NEDO)

*2 Green Innovation Fund Project

Explanation of items ③ and ④ continues below.

③ CCU Technology for Highly Efficient Production of Methanol from CO₂ NEDO GI Fund Projects

We have completed the construction of a pilot facility to establish a highly efficient process for producing methanol from CO₂ at our Ehime Works and have commenced operations at the facility. In pilot testing, we achieved 80% methanol yield under certain conditions (conventional method: about 20%). Carbon capture and utilization (CCU) technology is expected to serve as a game-changing solution to fight global warming and achieve a circular economy for carbon by recovering CO₂ and utilizing it in products, and we are accelerating the development and spread of various new CCU processes.

We will establish the technology and work toward its commercial production and licensing to other companies in the 2030s.

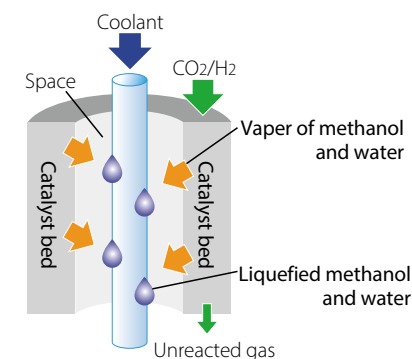
Features of this Technology

- Separating generated methanol within the reactor, which leads to improved yield, smaller equipment, and higher energy efficiency
- Separating by-product water, mitigating catalyst degradation



Pilot Facility for Methanol Production from CO₂

Principle of the ICR (Conceptual drawing)



4 Technology for olefin production from alcohols

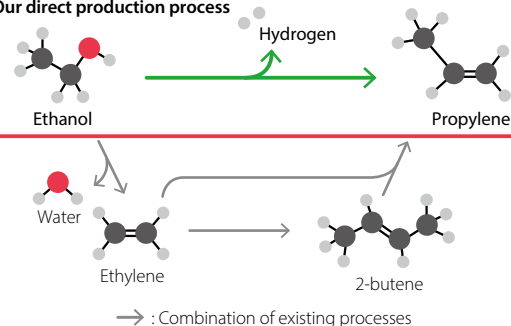
NEDO GI Fund Projects

We are developing technology to produce olefins directly from ethanol, which has been attracting attention as a sustainable chemical raw material. Since we achieved 80% yield of targeted olefin yield in bench trials, we began designing of pilot facilities for demonstration.

Features of this Technology

- Producing olefin directly from ethanol
- A newly-developed compact and low-cost process
- Producing hydrogen as a by-product, in addition to propylene

Our direct production process



Chemical Recycling System for Acrylic Resin

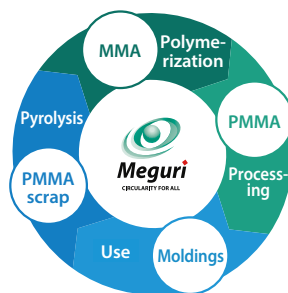
We have jointly developed with The Japan Steel Works, Ltd. a technology for efficiently breaking down acrylic resin using pyrolysis and recycling it back into MMA (methyl methacrylate) monomer, which is a raw material for acrylic resin (polymethyl methacrylate or PMMA). We have built the pilot facility at our Ehime Works and commenced sales of a chemically recycled PMMA material (SUMIPEX™ Meguri™)*¹ in March 2025.

In addition, we have also received third-party certifications, such as ISCC PLUS,*² and are globally promoting the practical application of recycling techniques that utilize the mass balance approach.

*¹ PMMA made from recycled monomers reduces GHG emissions throughout the product lifecycle compared to products derived from fossil resources.

*² An international certification system guaranteeing proper management of recycled, biomass, and other sustainable raw materials in supply chains, including product manufacturing.

Overview of PMMA Chemical Recycling



PMMA Chemical Recycling Pilot Facility

Examples of the Practical Applications of PMMA Chemical Recycling

SUMIPEX™ Meguri™ is a sustainable PMMA material produced using our chemical recycling technology at mass production scale. It is supplied for demanding applications, such as electronics and automobiles.

We supply the product to South Korea-based LG Display Co., Ltd. as a raw material for light guide plates used in back-light units of LCDs and to Nissan Motor Co., Ltd. as a material for lenses used in headlights.



LCD applications
Note: This is an illustration.



Automotive applications
Photograph provided by Nissan Motor Co., Ltd.

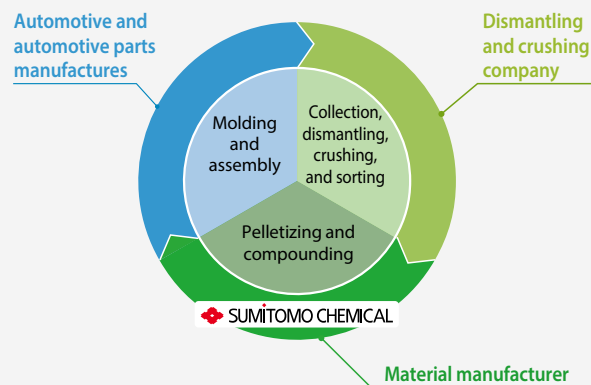
Mechanical Recycling

We are promoting the development of various technologies to achieve mechanical recycling for plastic products.

PP (Polypropylene) Mechanical Recycling

Our mechanical recycling initiatives include collaboration with REVER CORPORATION. In this partnership, we are developing technology to produce high-quality recycled plastics for use in automobile parts, made from waste plastics recovered from end-of-life vehicles. This initiative also seeks to strengthen cooperation between the waste management industry and the manufacturing industry as well as steadily maintain the amount and quality of recycled plastics, beginning with those used in automobile parts.

Overview of PP Mechanical Recycling



In September 2022, we made a decision to introduce a pilot-scale mechanical waste processing facility that performs an integrated process of high-precision sorting and removal of foreign matter according to the type and characteristics of waste plastics.

In addition, we will work towards the acceleration of business development.

Release of "NOBLEN™ Meguri™" in 2024

Examples of the Practical Applications of PP Mechanical Recycling

Since 2024, we have been providing NOBLEN™ Meguri™, produced through our mechanical recycling technology, for use in the front grille of the electric vehicle N-VAN e, marketed by Honda Motor Co., Ltd.

Scrap bumpers collected from Honda's vehicles will be crushed by Kyowashizai Co., Ltd. an automotive parts recycling contractor, and then provided to Sumitomo Chemical. Sumitomo Chemical recycles these materials into NOBLEN™ Meguri™ using its unique advanced material design and compounding technologies, and supplies the polypropylene material to Honda.



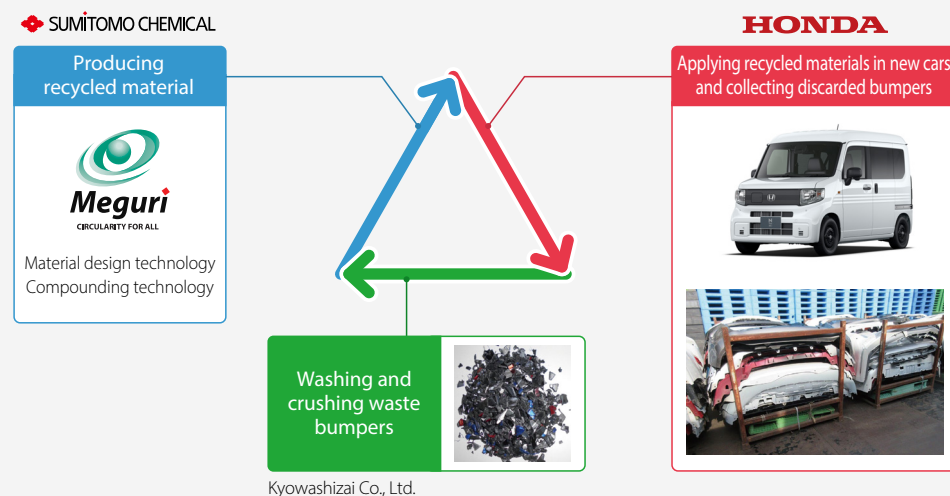
Honda N-VAN e:



Front grille

Photograph provided by Honda Motor Co., Ltd.

Horizontal Car-to-Car Recycling System for Plastic Bumpers



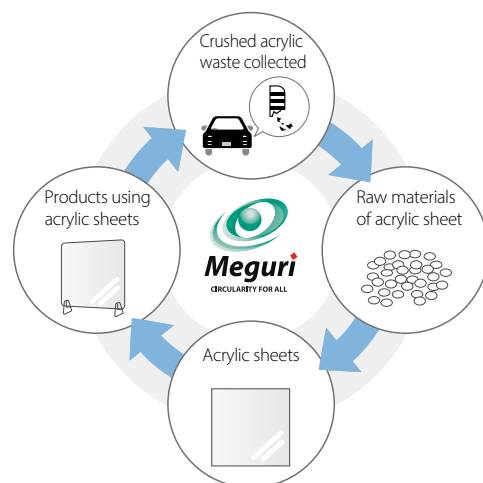
Sumitomo Chemical Circular System for Plastics Website NOBLEN™ Meguri™

<https://www.sumitomo-chem.co.jp/circular-plastics/en/>

PMMA (Polymethyl Methacrylate) Mechanical Recycling

"SUMIKA ACRYL SHEET™ Meguri™" is an acrylic sheet commercialized by SUMIKA ACRYL Co., Ltd., made from mechanically recycled raw materials by collecting, sorting, and crushing waste materials generated in the acrylic resin manufacturing process. Despite being recycled material, this product has excellent optical properties.

■ Overview of PMMA Mechanical Recycling



Examples of the Practical Applications of PMMA Mechanical Recycling

We are supplying the acrylic sheet "SUMIKA ACRYL SHEET™ Meguri™," produced through mechanical recycling technology, to Koizumi Lighting Technology Corp., a specialized lighting manufacturer.



Lighting sample made using recycled MMA through mechanical recycling

Photograph provided by
KOIZUMI LIGHTING TECHNOLOGY CORP.

Resource Saving and Waste Reduction

Basic Stance

Our company is working towards the realization of a circular society by collaborating with domestic and overseas group companies to promote resource conservation and waste reduction. In addition, based on the voluntary action plans for circular society management established by the Japan Business Federation (Keidanren) and the Japan Chemical Industry Association (JCIA), we set specific targets for the recycling of waste and waste plastics, as well as for the reduction of landfill volume, and we manage and disclose progress toward these goals.

Management System

The President serves as the chief coordinator and the executive officer in charge of Responsible Care serves as the coordinator of the Environment and Climate Change Action Group of the Responsible Care Department. This group is responsible for matters related to environmental protection for the Company as a whole and supports the environmental protection activities of Group companies.

Our worksites (head offices, Works, research laboratories, etc.) have established sections in charge of environmental protection operations, appointed coordinators and managers, and execute specific duties. Regarding the execution of duties, the corporate department (Responsible Care Department) formulates Company-wide annual policies and Company-wide medium-term (three-year) policies. Then each worksite, in light of these policies and in consideration of its own characteristics and regional situation, formulates an action policy and undertakes specific activities from the new fiscal year.

Regarding amendments to laws and regulations, the Responsible Care Department vigilantly pays attention to trends related to the enactment and amendment of environmental laws and, as appropriate, provides feedback through national specialized committees and other organizations. All people addressing the problems also establish targets (details of the amendments, possible impacts,

visualization of countermeasures, etc.) and commit the Company to addressing the issue being targeted.

Furthermore, with regard to amendments that have a large impact on business, we access the necessary information in advance and notify worksites to prepare for meeting compliance requirements.

P.054 Organization of Responsible Care



Examples of Initiatives

Promoting Resource Saving

In addition to strengthening waste reduction and recycling, we are also working to improve the yield of non-renewable raw materials and the product yield. Through these resource-saving initiatives, we not only create economic value but also contribute to the prevention of resource depletion and the reduction of environmental impact.

Note: Economic effects are detailed in the supplementary data (page 098)

Exhaustible Raw Material Use (Sumitomo Chemical and Group Companies in Japan)

(Thousand tons)

	FY2022		FY2023		FY2024	
	Sumitomo Chemical and Group Companies in Japan	Sumitomo Chemical	Sumitomo Chemical and Group Companies in Japan	Sumitomo Chemical	Sumitomo Chemical and Group Companies in Japan	Sumitomo Chemical
Hydrocarbon compounds	1,684	1,421	1,451	1,196	1,406	1,178
Metals (excluding minor metals)	104	100	85	81	92.7	89.1
Minor metals	16.2	0.07	15.0	0.04	14.3	0.08

Promotion of Recycling of Waste and Waste Plastics, and Reduction of Landfill Volume

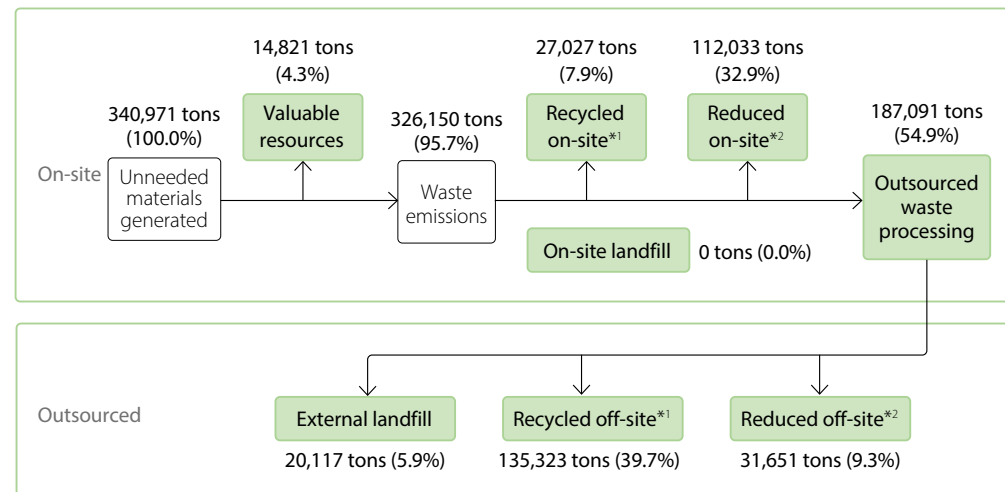
Various types of waste, such as sludge, waste plastics, waste oil, and paper waste, are generated through our production activities. At each site, we are implementing various initiatives to promote recycling and reduce the amount of waste sent to landfill. In addition, we are promoting the digitization of industrial waste management manifests, and except for a few special cases, digitization has been completed company-wide.

Examples of Initiatives at Worksites

Worksites	Examples of Initiatives
Chiba Works	Installing incinerators to reduce waste volume and promoting recycling by using ash as a raw material for soil amendments and roadbeds
Ehime Works	Reducing the amount of waste that is currently difficult to recycle by incinerating it as well as promoting thermal recycling
Oita Works	Striving to limit the amount of sludge produced from wastewater treatment methods and reduce the amount of waste sent to landfills by recycling the soot remaining after incineration into a raw material for cement
Misawa Works	Works are held as fundamentally responsible for disposing of the waste they produce, and we continue to promote recycling by shifting to a system where waste generated from construction efforts, such as expansion or maintenance, is treated as waste generated by Misawa Works, which bears the responsibility for disposing of and thoroughly separating this waste

Waste Disposal Flow Chart and FY2024 Results

(Sumitomo Chemical and Group Companies in Japan)



Note: The waste amount for Sumitomo Chemical and Group companies in Japan accounts for around 80% of the entire Group total, which includes overseas Group companies.

*1 Recycled waste: Total amount of waste that was reused, recycled, or thermally recycled

*2 Reduced waste: Total amount of waste reduced through incineration, etc.



■ Results of Recycling and Reusing Waste*

(Sumitomo Chemical and Group Companies in Japan)

(Tons)

	FY2020	FY2021	FY2022	FY2023	FY2024
Waste emissions	377,062	446,397	405,298	297,476	326,150
Amount internally reused	33,711	49,003	16,922	8,989	11,866
Amount of internally recovered heat	0	0	27,032	21,457	15,161
Outsourced waste processing	247,908	276,071	232,013	156,995	187,091
Amount externally reused	195,737	213,309	173,416	101,867	131,566
Amount of externally recovered heat	0	0	9,903	6,423	3,758
Recycling and reuse rate (%)	60.9	58.8	56.1	46.6	49.8

(Overseas Group Companies)

(Tons)

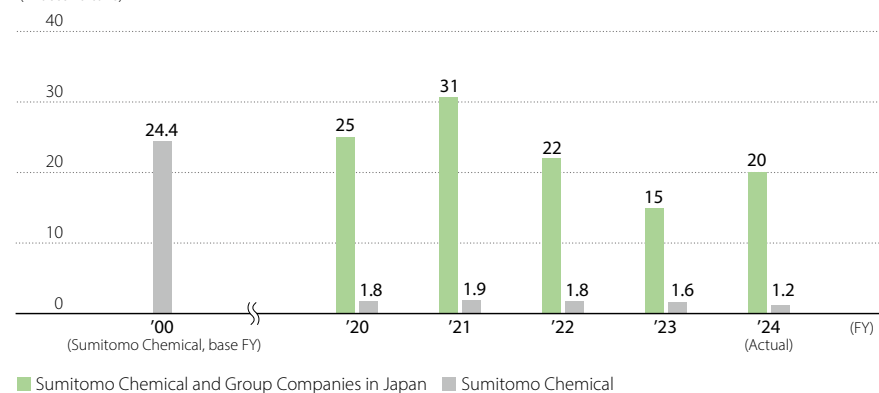
	FY2023	FY2024
Waste emissions	65,348	65,463
Amount internally reused	4,167	3,034
Outsourced waste processing	60,749	62,045
Amount externally reused	26,045	29,045
Recycling and reuse rate (%)	46.2	49.0

* Amount of waste recycled and reused: Amount internally and externally reused + Amount of internally and externally recovered heat
Waste recycling and reuse rate: (Amount internally and externally reused + Amount of internally and externally recovered heat) /
Waste emissions

■ Landfill Disposal Amount

(Sumitomo Chemical and Group Companies in Japan)

(Thousand tons)



(Goal) Maintain waste volume at below fiscal 2020 levels



Sustainable Use of Natural Capital

Basic Stance

Sumitomo Chemical conducts its business using various types of natural capital such as water and soil. In line with the so-called Nature Positive direction outlined in the Kunming-Montreal Global Biodiversity Framework, which was adopted at COP15, we have again designated biodiversity conservation and sustainable use of natural capital as material issues. The Company has formulated Sumitomo Chemical's Commitment to the Conservation of Biodiversity and is promoting specific actions to realize a Nature Positive stance from the perspectives of both obligation and contribution by taking an integrated approach to carbon neutrality and a circular economy. We also continue to conduct social contribution activities as well as educational activities with the aim of achieving a sustainable future. We have set ISO14001 activity goals for biodiversity preservation at each worksite and also promote initiatives through our businesses, such as participating in the Japan Business Federation's Biodiversity Initiative, while giving considerable thought to what we should be mindful of as a chemical company.

The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity

Sumitomo Chemical, aiming to create a society where humans live in harmony with nature, established the Sumitomo Chemical Biodiversity Guideline ("the Guideline") in 2011. Since then, the Company has proactively disclosed information about its initiatives and engaged in dialogue with stakeholders both inside and outside the Company. This policy was revised in February 2025 with the goal of further expanding our efforts.

Key Points of the Revision

- Beyond the conservation of biodiversity, Sumitomo Chemical will also work toward the conservation and restoration of natural capital.
- These initiatives will be integrated with efforts toward achieving carbon neutrality and circular economy.
- Sumitomo Chemical will promote these initiatives from the perspectives of both obligation*¹ and contribution*², and will continuously engage in societal contribution and awareness-raising activities.

■ The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity (Established in 2011, revised in 2025)

We at the Sumitomo Chemical Group strive to help create a society where humans live in harmony with nature and advance efforts to achieve a nature-positive*³ world in accordance with our Basic Principles for Promoting Sustainability.

1. [Material issue]

We consider the conservation and restoration of biodiversity and natural capital*⁴ one of the material issues to address as management priorities.

2. [Approach]

As we advance efforts to achieve a nature-positive world, we think both globally and locally, consider in an integrated manner how the efforts interrelate with the issues of carbon neutrality and a circular economy, and work from the perspectives of both obligation and contribution.

3. [Dependencies and impacts]

We endeavor to identify dependencies and impacts on biodiversity and natural capital across our business activities, including supply chains.

4. [Obligation]

We aim to continuously reduce the environmental impact of

our business activities and endeavor to conserve and restore biodiversity and natural capital by taking characteristics of local communities into consideration and cooperating with stakeholders in our supply chains.*¹

5. [Contribution]

We contribute to conserving and restoring biodiversity and natural capital across our value chain through development and provision of technologies, products, and services.*²

6. [Disclosure and communication with stakeholders]

We proactively disclose information about our initiatives to conserve and restore biodiversity and natural capital, provide relevant information to stakeholders, and engage in dialogue with stakeholders.

7. [Social contribution activities]

We continue to conduct social contribution activities that help to conserve and restore biodiversity and natural capital by cooperating and collaborating with stakeholders.*⁵

8. [Awareness-raising activities]

We conduct awareness-raising activities to ensure that employees, residents of local communities, consumers, and other stakeholders are able to rightly recognize and understand the importance of conserving and restoring biodiversity and natural capital.

*1 Examples of initiatives related to the obligation: Reduction of greenhouse gas (GHG) emissions from energy and processes, appropriate chemical substance management, reduction of waste emissions, effective use of water resources, and promotion of sustainable procurement initiatives

*2 Examples of initiatives related to the contribution: Provision of products and technologies that promote regenerative agriculture, development and implementation in society of technologies that contribute to recycling plastics and other resources, and provision of products, technologies, and services that contribute to GHG emissions reduction

*3 Nature-positive: Halting and reversing biodiversity loss to put nature back on a path to recovery

*4 Natural capital: Capital made of natural resources including forests, soil, water, the atmosphere, underground resources, and biological resources. Natural capital is one of the essential forms of capital that support people's lives and the foundations of corporations.

*5 Examples of social contribution activities: Nature conservation activities, tree planting activities, and clean-up activities



Obligation

We aim to continuously reduce the environmental impact of our business activities and endeavor to conserve and restore biodiversity and natural capital by taking characteristics of local communities into consideration and cooperating with stakeholders in our supply chains.

- Reduction of greenhouse gas (GHG) emissions from energy and processes
- Appropriate chemical substance management
- Reduction of waste emissions
- Effective use of water resources
- Promotion of sustainable procurement initiatives

Contribution

We contribute to conserving and restoring biodiversity and natural capital across our value chain through development and provision of technologies, products, and services.

- Provision of products and technologies that promote regenerative agriculture
- Development and implementation in society of technologies that contribute to recycling plastics and other resources
- Provision of products, technologies, and services that contribute to GHG emissions reduction

from the Internal Control Committee, then utilizes these reports as important factors in management judgments. Membership of the three committees each includes the president and executive officers in charge of each business sector, and each committee receives reports on evaluating and managing nature-related dependencies, impacts, risks, and opportunities from each business sector and Group company as well as fills the role of offering recommendations and guidance.

The Group also conducts engagement activities with a wide range of stakeholders, including indigenous groups, local communities, and impacted stakeholders, based on the organization's human rights policy regarding its evaluation of and action on nature-related dependencies, impacts, risks, and opportunities.

Disclosure in Line with TNFD Recommendations

Sumitomo Chemical discloses information related to biodiversity and natural capital in line with the TNFD recommendations.

TNFD

The Taskforce on Nature-related Financial Disclosures (TNFD) is an international initiative seeking to build a framework for corporations and financial institutions to evaluate and disclose the impact of their financial activities on biodiversity and natural capital. The TNFD recommendations were published in September 2023.

Sumitomo Chemical participates in the TNFD Forum, endorses the TNFD recommendations, and is registered as a TNFD Adopter.*1 In accordance with the TNFD recommendations, the Company now reports the results of its analyses and evaluations based on the LEAP approach,*2 in this publication. Going forward, we will continue working hard to expand the scope of our analyses as we address the issues they reveal.

*1 TNFD Adopter: A company, group or organization registered on the TNFD website as committed to making public disclosures in line with the TNFD recommendations

*2 LEAP approach: A method developed by the TNFD as an integrated approach for evaluating issues related to interfacing with nature, dependencies, impacts, risks, opportunities, and more

Governance

The Sumitomo Chemical Group has designated the conservation and restoration of biodiversity and natural capital as one of the material issues to be addressed as management priorities and is promoting initiatives via a system centered on the Board of Directors.

The Board of Directors receives reports on nature-related dependencies, impacts, risks, and opportunities from Management Meetings, the Carbon Neutral Strategy Council, the Internal Control Committee, and the Responsible Care Committee. In turn, the Board provides oversight by offering recommendations and guidance. Furthermore, the Board receives reports on matters related to business strategies from the Sustainability Promotion Committee as well as on matters related to foundations for business continuation

▶ **P.008 Management System:** Sustainability Promotion System

▶ **P.032 Corporate Governance:** Corporate Governance Organization

▶ **P.042 Risk Management:** Systems for Promoting Risk Management

▶ **P.054 Responsible Care:** Management System

▶ **P.065 Climate Change Mitigation and Adaptation:** Structures for Responding to Climate Change

▶ **P.076 Contribute to Recycling Resources:** Management System

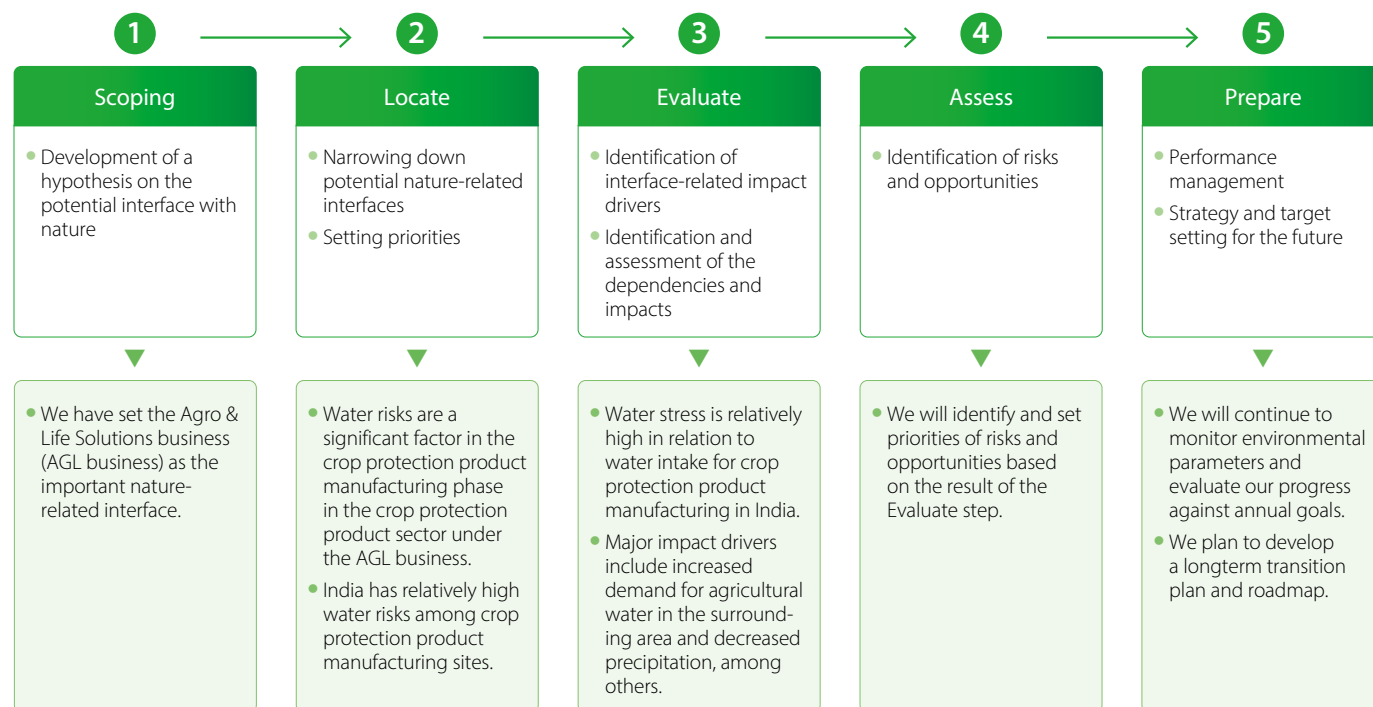


Strategy

The Sumitomo Chemical Group assesses nature-related dependencies and impacts, as well as risks and opportunities, based on the LEAP approach recommended by the TNFD, and incorporates the results into the formulation of the Group's strategy.

Leap Approach

Summary



1 Scoping

Upon examining the entire value chain, it is clear that nature-related dependencies and impacts exist in each of the Group's four business sectors.

This section will focus on the Agro & Life Solutions Sector, which

is involved in the food supply through its regenerative agriculture efforts. Food supply, ICT, healthcare, and the environment are the four important material social issues to be addressed by the Company in pursuit of value creation.

2 Locate

Overview of the Agro & Life Solutions Sector

For details, please refer to the page on the Agro & Life Solutions Sector in the Integrated Report 2025.

Agro & Life Solutions Sector in the Integrated Report 2025.

https://www.sumitomo-chem.co.jp/english/ir/library/annual_report/files/docs/scr2025e.pdf#page=43

Evaluating dependencies and impacts on natural capital

The impacts on natural capital in this report involve the damage to (and recovery of) natural capital via the business activities, products, technology and services related to the Agro & Life Solutions Sector. Dependencies on natural capital refer to the benefits to business activities, products, technology and services via the function of natural capital (ecosystem services).

Method for evaluating dependencies and impacts on natural capital

This report provides the results of qualitative risk evaluations, which were performed in reference to the IUCN Guidelines for Planning and Monitoring Corporate Biodiversity Performance. The evaluations also utilize the Group's unique evaluation framework, which considers the scale of the Group's business and the degree of impact.

Evaluation results for impacts on natural capital

The impacts of the crop protection product business are significant overall, and the main impacts include the use of land and freshwater, water pollution, and soil pollution.

Evaluation results for dependencies on natural capital

Large dependencies exist in crop protection product and feed additive product lines and processes. As for ecosystem service-related items, there is a tendency toward high dependency on items related to disaster prevention or water resources.

Evaluations related to water risk

Water risk was evaluated for river basins where major bases for Group businesses are located.

Water risk evaluation method

This evaluation was performed for the following items for water-related risks in basins near major bases within the scope.

1. Water supply and demand risks

- i) Current status of supply and demand (competition for water and groundwater, seasonal changes, frequency of droughts, water retention capabilities)
- ii) Estimates for future trends (estimated shifts in competition for water, rate of conservation for water sources)

2. Vulnerability of basins with regard to water pollution

- i) Public health risks (access to drinking water, water pollution)
- ii) Ecosystem risks (conservation of downstream regions, inhabitation by endangered species)

This evaluation qualitatively and quantitatively assessed water risks using the Group's unique method that references the following database.

- WRI Aqueduct water risk atlas
- WWF-DEG Water Risk Filter (Map)
- Integrated Biodiversity Assessment Tool (IBAT)

Water risk evaluation results

The following is an overview of the results of an evaluation of water risks for major bases and their surrounding areas.

1. Water supply and demand

✓ Evaluations of the current condition of water supply and demand at Japanese bases showed risk levels as either "somewhat low" or "medium." We expect that risks will ease in the future as increased water supply from climate change and reduced water demand.

✓ India has been raised as a region where water supply and demand risks will become greater in the near future. In particular, demand for water supplies is expected to greatly increase at our bases in India, and we expect that water stress will rise further above its current level.

2. Vulnerability to water pollution

✓ Regarding public health, medium to high levels of risk are present at various overseas bases. Even in bases with low water supply risks, low access rates to drinking water could potentially lead to reputational risks (e.g., Tanzania). We believe we need to pay attention to trends in such areas as public opinion and NGOs.

3 Evaluate

Based on the results of the aforementioned evaluations of dependencies and impacts within the Locate phase and in accordance with the LEAP approach, we determined the target of our analysis would be the crop protection products from the wide product line handled by the Agro & Life Solutions Sector. It has become clear that there is a comparatively large degree of dependence on water resources within this business sector, therefore we are taking countermeasures in India, where risks are relatively higher, taking into account the results of water risk evaluations at our major directly operated bases.

Initiatives in a Relatively High-Risk Region (Sumitomo Chemical India)

Sumitomo Chemical India Ltd.'s Bhavnagar Plant serves as a crop protection product manufacturing site in India. The plant used to purchase river water from the local municipality to secure water for production. However, in recent years, securing the water required for production has become difficult due to population growth in the surrounding area, rising demand for agricultural water, and a decline in annual precipitation.

At the Bhavnagar Plant, we purchase a portion of household wastewater to be treated by local municipalities, then treat it and utilize it in production. We have also constructed a pipeline approximately two kilometers long that brings this household wastewater to the Bhavnagar Plant. Furthermore, a unique aspect of this method of wastewater treatment is that it utilizes vermiculture technology instead of an activated sludge method to turn pollutants in household wastewater into nutrients.

Through this initiative, we have been able to reduce the amount of river water we purchase from local municipalities by over 70%, providing a solution to the long-term issue of securing stable amounts of the water necessary for production activities as well as allowing us to successfully lower the cost of purchasing water by around half, achieving financial efficacy.



Water Treatment at the Bhavnagar Plant



4 Assess

With reference to key impact drivers, and based on the nature-related risks and opportunities identified and assessed during the Evaluate phase, and we plan to continue to identify risks and opportunities while creating an order of priority.

5 Prepare

The following is a future action plan made in consideration of the initiatives conducted by the Group.

Continue to monitor environmental parameters for Sumitomo Chemical and the Group as a whole

- Evaluate achievement of annual targets
- Revise nature-related risk screening as needed

Continue to monitor and manage environmental parameters for each region and base

- Appropriately respond to laws and regulations in each region
- Comply with agreed limits established with national and local governments for each site
- Continuation of and revisions to risk mitigation methods at regions and locations where priority risk management measures are needed
- As necessary, deeply investigate the nature-related risk screening performed for every region and base

We plan to continue creating future transition plans related to biodiversity and natural capital as well as medium- to long-term roadmaps.

Risk Management

For the risk evaluation items assessed by the aforementioned LEAP approach, the Sumitomo Chemical Group has created a system to manage the degree of impact via the process shown below for nature-related risks in the value chain of its businesses.

P.043 Risk Management: Promotion of Group-wide Priority Risk Assessment and Countermeasures

P.043 Risk Management: Cross-organizational Risks and Crisis Response

Metrics and Targets related to Biodiversity and Natural Capital

With respect to metrics for nature-related dependencies and impacts on a global scale, targets are set and managed both on a standalone basis for Sumitomo Chemical and on a consolidated basis including Group companies. With respect to metrics at the local level, targets are set and managed individually by manufacturing sites and Group companies.

For details on environmental targets, please refer to the supplementary data.

P.062 Environmental Activity Goals and Results

P.095 Environmental Activities: Supplementary Data

Specific Initiatives for “Obligation”

Each Group company and worksite sets targets in such fields as biodiversity preservation, atmospheric environment protection, effective water resource usage, sustainable soil usage, and appropriate chemical substance management. They are striving to enhance measures aimed at achieving the targets.

Effective Use of Water Resources

In accordance with The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity, we strive to maintain production at worksites and conserve nearby aquatic environments by appropriately managing wastewater, achieving more sophisticated activated sludge treatment, and promoting effective water use based on water risk evaluations at each production base.

Protecting the Aquatic Environment

In addition to our initiatives aimed at reducing overall water use, we have realized thorough purification of wastewater from worksites by operating stable and sophisticated wastewater treatment facilities.

Responding to Increasing Sophistication of Activated Sludge Treatment

At all our sites, we are striving to develop management technologies for water treatment that will further reduce our environmental impact and apply these technologies to realize safe and secure wastewater treatment.

At Works, for process wastewater that is difficult to break down, which was conventionally incinerated for treatment, we have developed an activated sludge treatment utilizing microbial immobilization technology to stabilize the process water and reduce treatment costs. We are still considering applying this treatment to a wider scope of water.

P.073 Reduction of GHG Emissions from process (chemical reaction and waste treatment):
Innovation in Wastewater Treatment Technology

★: Assured by an independent assurance provider

Water Area Surveys Conducted around Works (Misawa Works)

To confirm the impact of business activities on water areas, we conduct aquatic wildlife surveys of the Sabishiro River, into which process water from the Works flows.

In the Sabishiro River, we confirmed 10 species of precious aquatic benthic organisms, such as a vulnerable species of *Stenothyra* and the endangered species *Cottus reinii*. We determined that we were maintaining ecosystems with extremely good water quality.



Stenothyra



Cottus reinii



Dugesia japonica



A subspecies of *Tubifex tubifex*

Responding to Water Quality Standards

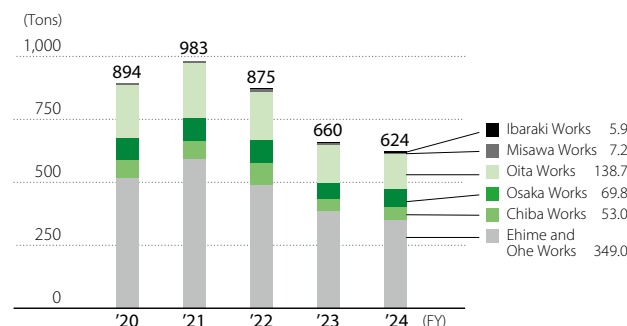
We are strengthening our voluntary management to continually reduce the COD, nitrogen, and phosphorus in wastewater emitted into the ocean and waterways from wastewater treatment facilities. In addition, we have realized stable treated water quality by enhancing the management technologies used in our water treatment facilities. We are continually working to reduce the impact of water emissions from our plants on Tokyo Bay and other closed coastal waters where regulatory systems have been implemented to control the total water emissions of COD, nitrogen, and phosphorus.

Water Emissions of COD, Nitrogen, and Phosphorus

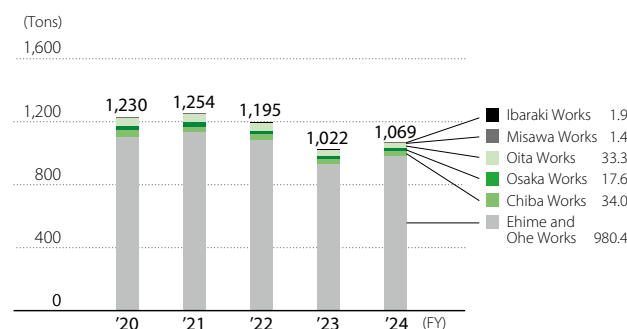
A number of measures have been implemented to cut emissions, in line with fifth-generation Water Quality Standards, and emissions of COD, nitrogen, and phosphorus into waterways have been significantly reduced since fiscal 2004. Sumitomo Chemical has also concluded cooperative agreements with local municipal governments to establish voluntary control levels for COD, nitrogen, and phosphorus released into waterways at each Works. These standards are also stricter than those established under applicable laws and regulations.

(Note) Data for the Gifu Works (former Gifu Plant) and Okayama Works (former Okayama Plant) is included in Oita Works

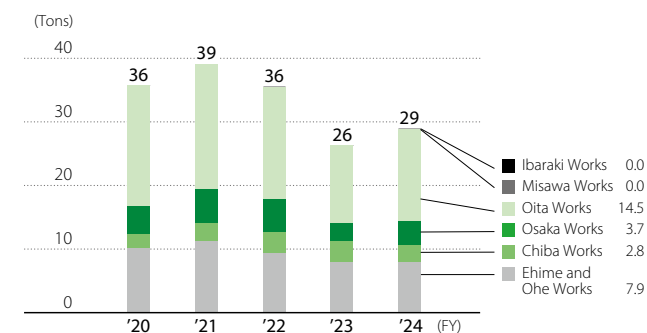
COD Emissions (water emissions include water discharge to sewage systems) (Sumitomo Chemical)



Nitrogen Emissions (Sumitomo Chemical)



Phosphorus Emissions (Sumitomo Chemical)



Promoting the Effective Use of Water

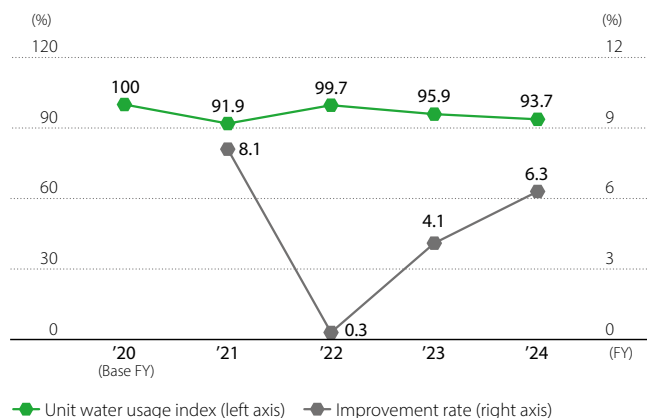
We investigate water risks related to intake, effluence and physical risk at each worksite and Group companies in Japan and overseas. We uncover various issues related to the use of fresh water on the worksite level and assess and manage the associated risks. In addition, we strive to reduce the amount of water we use by examining more effective ways to use water by application, while continuing to maintain and improve the quality of water released from our business sites into public water resources such as the ocean and waterways.

Water Usage (Sumitomo Chemical Group)

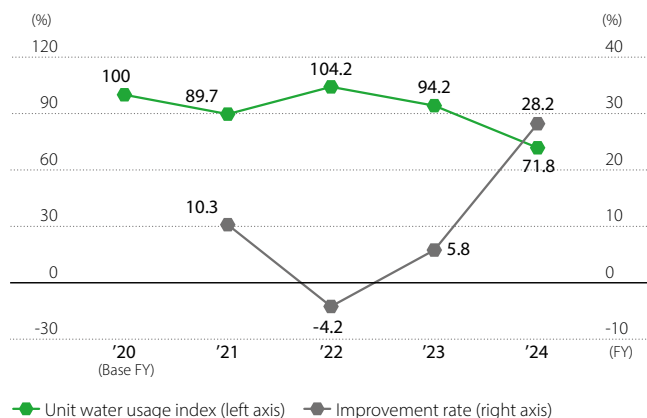
	(Million tons)		
	FY2022	FY2023	FY2024
Sumitomo Chemical Group	871	707	840
(Breakdown 1)			
Sumitomo Chemical	280	251	241 ★
Group companies in Japan	583	450	593 ★
Overseas Group companies	7.58	5.74	5.74
(Breakdown 2)			
Seawater	764	607	741
Fresh water	107	100	99

Note: Water usage volume includes seawater

■ Unit Water Usage Indices (2020 = 100) (Sumitomo Chemical and Group companies in Japan)



(Group companies overseas)



(Goal) Improve unit water consumption by at least 1% on average by fiscal 2025 (FY2020 level as baseline)

● Wastewater Detoxification Initiatives (Misawa Works)

Wastewater from the Misawa Works goes through general activated sludge treatment, then, after finishing tertiary treatment of activated carbon absorption and the removal of floating substances through coagulation and sedimentation, analysis equipment does quality checks and the water is released into public waterways.

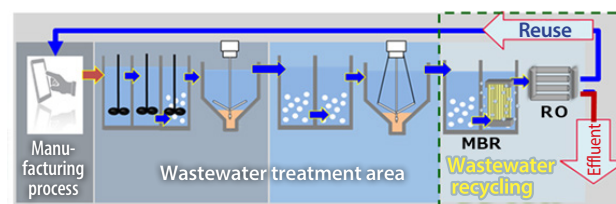


Activated Sludge Treatment Facility

● Initiative to Effectively Utilize Wastewater (Dongwoo Fine-Chem)

Dongwoo Fine-Chem's Pyeongtaek Works recycles wastewater to reduce the amount of industrial water consumed as an initiative to mitigate water risks. The wastewater treatment facility at Pyeongtaek Works recycles treated water into industrial water, using a wastewater recycling system that combines membrane bioreactor (MBR) and reverse osmosis (RO) methods.

■ Composition of Wastewater Recycling System (Pyeongtaek Works)



Conserving Soil Environment

In accordance with The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity, we recognize that the conservation and restoration of soil environments is an important initiative to ensure the sustainable use of natural capital. In addition, as specific measures in line with the Soil Contamination Countermeasures Act, we maintain careful control of the execution and management of construction plans in order to ensure appropriate responses to notifications when modifying soil types at specified facilities that use hazardous substances and an expansion of opportunities for soil contamination surveys.

● Regularly Monitoring Groundwater

We analyze the groundwater at the boundaries of our worksites to confirm that levels of hazardous materials are below those stipulated by standards.

● Preventing Soil Contamination

We have established rules regarding the construction standards and the content of regular inspections for various equipment, including the gutters, floors, plumbing, and bund walls of facilities handling chemical substances. We are working to prevent soil contamination from leaks by thoroughly complying with these rules and to prevent the dispersal of hazardous substances outside of plant premises.

Protecting the Atmospheric Environment

In accordance with The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity, we are working on reducing our various environmental impacts, including emissions of soot and dust mainly from boilers and gas turbines, leaks of fluorocarbons from refrigeration equipment, emissions of mercury from waste incineration, emissions of chemicals and VOCs from manufacturing plants, and airborne asbestos from the demolition of buildings. In addition, we appropriately respond to laws and regulations.

Reining in PM2.5* Emissions

We constructed a cogeneration facility fueled by LNG and reined in PM2.5 emission volumes, achieving significant reductions in the emissions of atmospheric pollutants, including NOx and SOx.

* Particulate matter of up to 2.5 µm in diameter



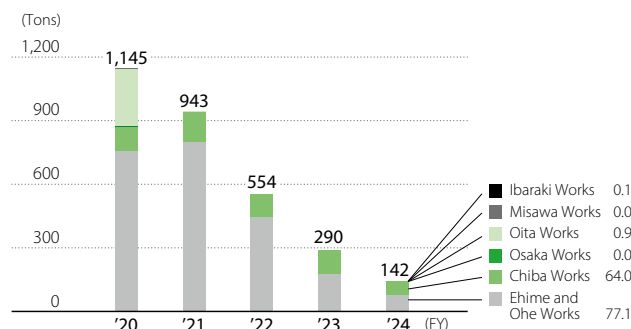
Chiba Works' Highly Efficient
Gas Turbine Power Generation
Equipment

Preventing Pollution: Atmospheric Emissions of SOx, NOx, Soot, and Dust

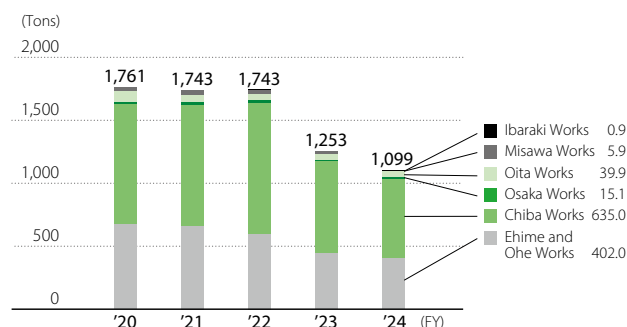
In 1970, Sumitomo Chemical achieved a marked reduction in the release of SOx, NOx, soot, and dust into the atmosphere, and continued to maintain low levels of emissions from 1980 to the present. Furthermore, the Company has concluded cooperative agreements with local municipal governments at each of its Works, establishing voluntary control levels that are stricter than the standards given under applicable laws and regulations.

(Note) Data for the Gifu Works (former Gifu Plant) and Okayama Works (former Okayama Plant) is included in Oita Works

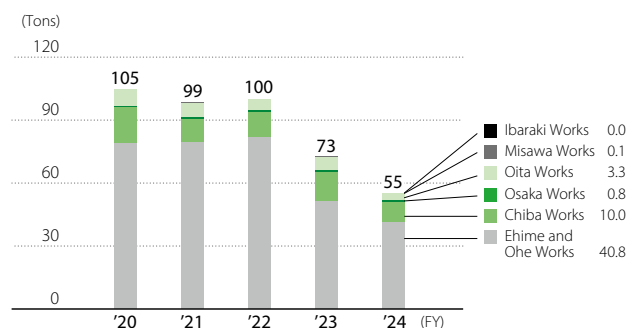
SOx Emissions (Sumitomo Chemical)



NOx Emissions (Sumitomo Chemical)



Soot and Dust Emissions (Sumitomo Chemical)



Responding to Fluorocarbon Emission Controls

Initiatives to reduce leakage

We conduct twice annual fluorocarbon leakage surveys at all worksites to assess leakage amounts, identify equipment with significant leakage discovered during the assessment, and clarify the sources of leaks, then take measures to prevent recurrences. Specifically, in addition to the simple and regular inspections defined in the Act for Rationalized Use and Proper Management of Fluorocarbons, which we carry out as directed as a matter of course, we carry out more frequent inspections, introduce fluorocarbon detectors to promptly detect leaks at an early stage, thereby working to reduce the amount of leakage.



HFO (R1233zd) Refrigeration Equipment



Management for disposal

When disposing of equipment, to ensure fluorocarbon refrigeration equipment is properly treated, we diligently utilize disposal check sheets for Class I designated products so that there are no gaps in their management linked to fixed asset ledgers or in procedures for recovering fluorocarbons.

● Systematic upgrades and use of green coolants

Regarding CFC and HCFC refrigeration equipment employed in production processes, we have set a target deadline for upgrading the equipment and conduct progress surveys once a year.

In addition, we are promoting a switch to green coolants at all Group companies in Japan, and Group companies in Japan and all worksites are promoting a switch to HFO refrigeration equipment.

● Fluorocarbon Countermeasures Rating

Our management of fluorocarbon has been evaluated in the JRECO Fluorocarbon Countermeasures Rating, receiving the highest grade of "A" for the second year in a row.



● Upgrade Deadlines for Each Type of Equipment

CFC equipment: Eliminate use of all units by fiscal 2025
(currently a total of 9 units held by Sumitomo Chemical and Group companies in Japan)

HCFC equipment: Eliminate use of all units by fiscal 2045
(currently a total of 147 units held by Sumitomo Chemical and Group companies in Japan)

■ Calculated Emissions for Fluorocarbons (Sumitomo Chemical: All Worksites)

(tons-CO₂e)

	FY2020	FY2021	FY2022	FY2023	FY2024
Calculated Emissions	4,362	5,100	5,844	4,051	3,082

■ Number of Refrigeration Units That Use Specified CFCs and HCFCs as Coolants (Sumitomo Chemical and Group Companies in Japan) as of the End of Fiscal 2024

(Number of Units)

	Sumitomo Chemical	Sumitomo Chemical and Group Companies in Japan
CFC11	1	1
CFC12	1	7
CFC13	0	0
CFC115	1	1
HCFC22	22	130
HCFC123	13	17
HCFC124	0	0

Emissions of Mercury into the Atmosphere from Waste Incinerators

We measured concentrations of mercury (both gas and particles) emitted into the atmosphere by our waste incinerators, which we own, and completed a study of the impact of these emissions. The results have confirmed that mercury is being effectively removed by emission gas removal equipment, including bag filters and scrapers installed at incinerators, and that the concentration of mercury released into the atmosphere from all of the incinerators we own is within the emission guideline value set under the Air Pollution Control Act.

Appropriate Chemical Substance Management

In accordance with The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity, regarding Class I designated chemical substances (PRTR Act) and VOCs, we conduct environmental risk analyses regardless of the amount emitted into the environment. We also take measures to reduce use and emissions.

Meeting Voluntary Environmental Targets

At the boundaries of plant premises and at final drainage exits, we have set voluntary environmental targets for the concentration of pollutants in air and water and work to meet those targets.

Reducing Atmospheric Emissions (FY2024 results: atmospheric emissions accounted for around 90% of total air and water emissions)

We are, of course, taking measures to reduce emissions mainly by sealing facilities and improving operation methods. But we are also working to intently and systematically reduce atmospheric emissions primarily by additionally taking such disposal measures as recovering emissions through absorption, purification, and stronger cooling; incinerating emissions; and suppressing emissions through internal floating roofs for tanks.

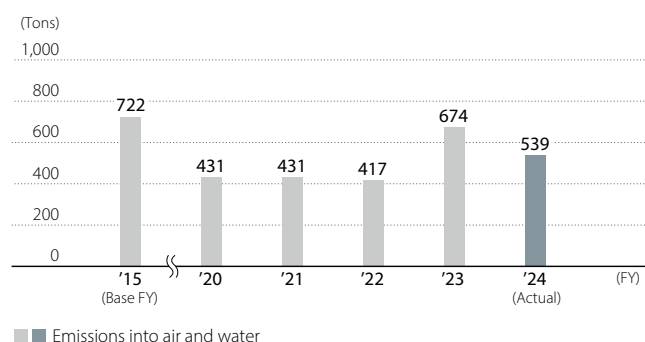
Operating Company-wide PRTR Calculation Systems

Using the Company's proprietary calculation system, which complies with the Revised PRTR Act enforced from April 2024, Sumitomo Chemical is striving to increase the accuracy and level of detail of the data on emission amounts and transfer amounts for each substance.

Moving up the Schedule for the Treatment of Waste with Minute Amounts of PCBs before Legal Disposal Deadline Set by the PCB Special Measures Law

We winnowed the external operators jointly contracted to dispose of waste by Group companies in Japan down to just one. Regarding the waste with minute amounts of PCBs (transformers, condensers, etc.) being stored or used by each company, we formulated and are carrying out a plan to treat the waste over multiple years. We have treated all of the high-concentration PCB waste and plan to complete treatment for all low-concentration PCB waste by March 2027.

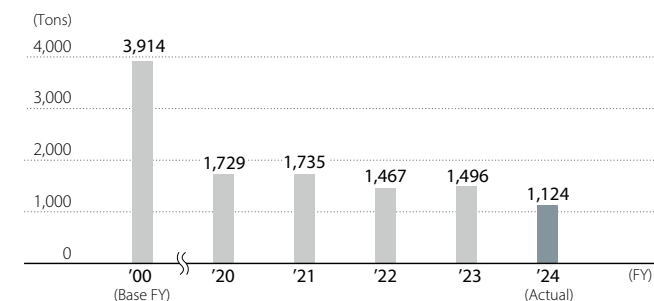
Trends in Emissions of Substances Subject to the PRTR Act* (Sumitomo Chemical and Group Companies in Japan)



(Goals) Keep total emissions from Group companies in Japan below the fiscal 2015 level

* The number of substances subject to the PRTR Act increased from 462 to 515 in April 1, 2023.

Initiatives to Reduce Emissions of Volatile Organic Compounds (VOCs) (Sumitomo Chemical)



(Goals) Maintain VOC emissions reductions at 30% relative to fiscal 2000

Examples of Initiatives for “Contribution”

In accordance with The Sumitomo Chemical Group's Commitment to the Conservation of Biodiversity, focusing on responses at production sites, in fields concerning atmospheric, water and soil quality as well as waste disposal we will continue striving to achieve independent medium- to long-term targets going forward and promote unique initiatives at each worksite in line with the local characteristics.

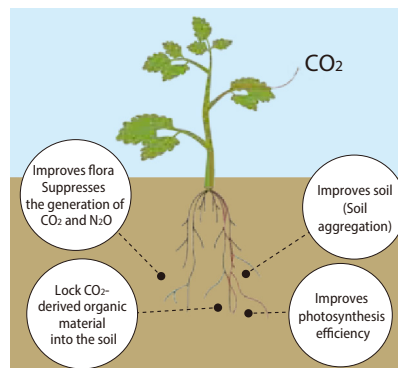
Soil Fertility by Mycorrhizal Fungi

Mycorrhizal fungi, a type of soil-dwelling microorganism that lives in symbiosis with plant roots, stimulates plant growth. These fungi receive carbon compounds produced by plants through photosynthesis, which increases the amount of carbon compounds in the soil and promotes carbon fixation, thereby reducing atmospheric CO₂ and contributing to soil fertility. We are working on the development of technology utilizing mycorrhizal fungi to achieve carbon negativity and solve food problems.

Contributed to the Spread of No-till Farming

No-till farming is an agricultural method of growing crops without tilling, and is attracting attention from the perspective of reducing greenhouse gas (GHG) emissions by contributing to the reduction of CO₂ emissions from the ground, in addition to its significant environmental benefits such as soil protection and organic matter conservation. We have several herbicides suitable for use before sowing crops, and we will contribute to the spread of this farming method by ensuring the convenience of no-till cultivation through the promotion of these herbicides.

■ Benefits of Mycorrhizal Fungi (Including some hypotheses undergoing validation)



P.021 Promoting Sustainability: SSS

Examples of Initiatives for “Social Contribution”

In accordance with the Sumitomo Chemical Group Biodiversity Action Plan, we are coordinating and collaborating with our stakeholders in ongoing social contribution activities that help conserve and restore biodiversity and natural capital.

Nature Preservation Initiatives

● Preserving the Environment of Sakuragaike (Misawa Works)

To prevent damage from heavy rains at Misawa Works, we created a retention pond that can store 50,000 tons of water. The area around the regulating pond is planted with many cherry trees, including double-flowered cherry blossoms (yaezakura) and Oyama-zakura, which is why it has been named “Sakura-ga-ike” (“Cherry Blossom Pond”). In addition, lilacs and Todo firs have been planted in the surrounding area, and a variety of wildlife can be found, including ducks, cormorants, and other waterfowl, as well as wild animals such as foxes, raccoon dogs, and Japanese serows.

To maintain Sakuragaike, we do not use synthetic chemical insecticides or germicides and instead regularly prune the trees of withered and diseased branches every three years.



Sakuragaike



Double cherry



Left: Grey heron Right: Cormorants



Left: Rabbit Right: Bat

● Revitalizing Prairieland (Valent BioSciences LLC)

The Osage Plant of Valent BioSciences LLC, which is based in Iowa, U.S.A., is working to revitalize prairieland on its site, to this end replanting native vegetation on part of the farmland. The revitalized portion of prairie covers 14 hectares and supports ecosystems with native grasses, trees, and shrubs. It has become a habitat for endangered and other small creatures, including birds, butterflies and other insects, and reptiles. This initiative is being undertaken in partnership with Iowa State University, local municipalities, and local schools.



The Revitalized Prairieland on the Osage Plant

● Promoting 30by30

30by30 is a worldwide goal to effectively conserve at least 30% of Earth's land and sea areas as healthy ecosystems by 2030, with the aim of stopping the loss of biodiversity and reversing the trend. Sumitomo Chemical participates as an initial member in the 30by30 Alliance for Biodiversity, which comprises volunteer companies, municipalities, and organizations. We aim to certify the green spaces we manage as nature coexistence sites that contribute to the 30by30 goal and will continue further promoting the conservation of biodiversity.



● Obtaining certification in the “Conservation Site for Human-Nature Symbiosis” Trial Program (Ehime Works)

The Miyoshima Area, which is on the site of Ehime Works, was originally an island in the Seto Inland Sea. In the Showa era, the expansion of the Works through land reclamation connected it to the mainland and it is now an onsite green area. Such rare species as peregrine falcons have been confirmed to be inhabiting the Miyoshima Area, and the area is therefore considered to have value in terms of biodiversity conservation. For this reason, in fiscal 2023 the area acquired certification as a Conservation Site for Human-Nature Symbiosis, which Japan's Ministry of the Environment is promoting as a measure to achieve 30by30 in Japan. We will continue preserving the area as a green area and contributing to the achievement of 30by30.



The Miyoshima Area