# **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

### 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

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.

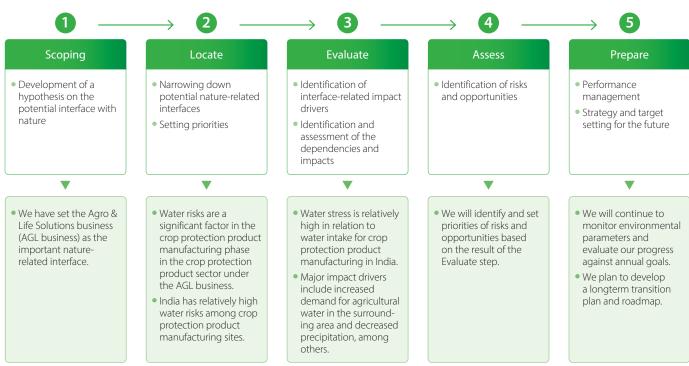
- Management System: Sustainability Promotion System 🗗
- Corporate Governance: Corporate Governance Organization
- Risk Management: Systems for Promoting Risk Management 🗗
- Responsible Care: Management System 🗗
- Climate Change Mitigation and Adaptation: Structures for Responding to Climate Change
- 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





### 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.

#### 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.

#### 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.

▶ Risk Management: Promotion of Group-wide Priority Risk Assessment and Countermeasures

▶ 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.

▶ Environmental Activity Goals and Results 🗗

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.

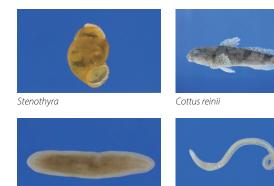
At Works, for process wastewater that is difficult to break down, which was conventionally incinerated for treatment, we have developed an activated sludge treatment utilizing microbial immobilization technology to stabilize the process water and reduce treatment costs. We are still considering applying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

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

#### 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.



#### Responding to Water Quality Standards

Dugesia japonica

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.

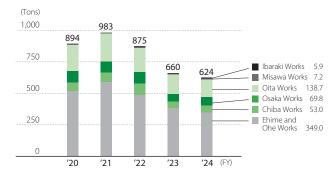
A subspecies of Tubifex tubifex

#### Water Emissions of COD, Nitrogen, and Phosphorus

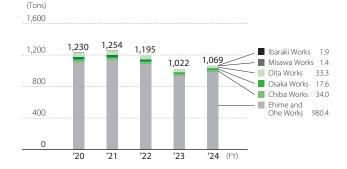
A number of measures have been implemented to cut emissions, in line with fifth-generation Water Quality Standards, and emissions of COD, nitrogen, and phosphorus into waterways have been significantly reduced since fiscal 2004. Sumitomo Chemical has also concluded cooperative agreements with local municipal 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

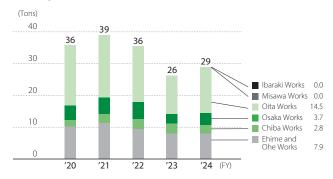
#### COD Emissions (water emissions include water discharge to sewage systems) (Sumitomo Chemical)



### ■ 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.

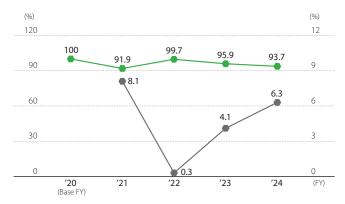
#### ■ Water Usage (Sumitomo Chemical Group)

(Million tons)

FY2022	FY2023	
	F12023	FY2024
871	707	840
280	251	241
583	450	593
7.58	5.74	5.74
		***************************************
764	607	741
107	100	99
	871 280 583 7.58	871 707 280 251 583 450 7.58 5.74

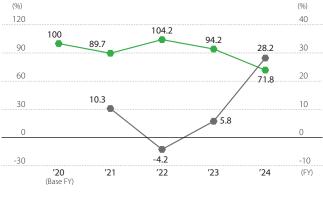
Note: Water usage volume includes seawater

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



Unit water usage index (left axis)
Improvement rate (right axis)

#### (Group companies overseas)



Unit water usage index (left axis)
Improvement rate (right axis)

(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.

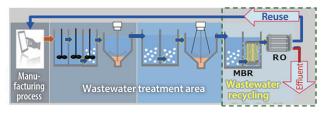


Activated Sludge Treatment Facility

#### 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  $\mu m$  in diameter



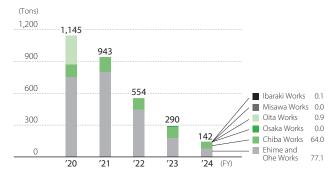
Chiba Works' Highly Efficient Gas Turbine Power Generation Equipment

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

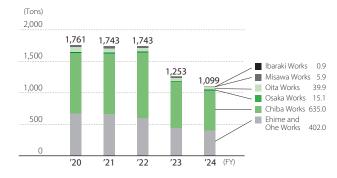
In 1970, Sumitomo Chemical achieved a marked reduction in the release of SOx, NOx, soot, and dust into the atmosphere, and continued to maintain low levels of emissions from 1980 to the present. Furthermore, the Company has concluded cooperative agreements with local municipal governments at each of 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

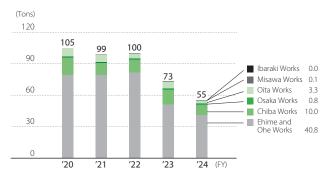
#### SOx Emissions (Sumitomo Chemical)



#### 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.

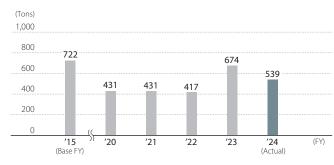
#### **Operating Company-wide PRTR Calculation Systems**

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.

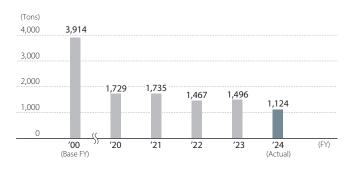
#### Trends in Emissions of Substances Subject to the PRTR Act\* (Sumitomo Chemical and Group Companies in Japan)



■ Emissions into air and water

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

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



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

 $<sup>^{\</sup>ast}$  The number of substances subject to the PRTR Act increased from 462 to 515 in April 1, 2023.

# 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.

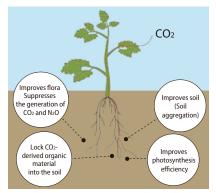
#### Soil Fertility by Mycorrhizal Fungi

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)



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



Left: Grey heron Right: Cormorants



Double cherry



Left: Rabbit Right: Bat

#### Revitalizing Prairieland (Valent BioSciences LLC)

The Osage Plant of Valent BioSciences LLC, which is based in lowa, 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 lowa 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

