# Environmental Management

## Basic approach

Since business activities are dependent on natural resources, tackling climate change and other environmental problems is an essential task for companies. The artience Group has recognized environmental conservation as an important issue from an early stage, and has been working to reduce its environmental impact by establishing its Basic Policy on Environment (revised in January 2024.) In the Group's environmental management system, our Basic Policy on Environment is regarded as our environmental policies under ISO 14001, and we will thoroughly inform all employees, set objectives and targets for each, and make efforts for their realization.

The Group also organizes environmental risk communication and other activities to focus on communicating with stakeholders.

WEB The Basic Policy on Environment is posted on our website under [Sustainability > Related Policies and Guidelines.]

## Promotion system

The President and Representative Director (Group CEO) is the chief executive officer of the sustainability promotion system and the chief executive officer for environmental management, including the Group's response to climate change. Environmental management is supervised by the Board of Directors through the President and Representative Director (Group CEO,) and is promoted by the Chief Sustainability Officer (Chair of the Sustainability Committee) as the person in charge of practical matters.

The Sustainability Committee and its ESG Promotion Subcommittee formulate medium to long-term environmental plans and targets for the entire Group, check progress, carry out activities for each theme, and report to management at Sustainability Committee meetings and Sustainability Meetings (group-wide meetings.)

In terms of day-to-day activities toward achieving targets, the ESG Promotion Office of artience Co., Ltd. is a dedicated organization that supervises and manages activities for the entire Group, and works in cooperation with related departments to achieve the asv2050/2030 Sustainability Vision, looking ahead to 2050.

link Page 8: Sustainability promotion system

## Environmental risk management

The Group implements ISO 14001-compliant environment management. Accordingly, we implement on-site checks of contractors to ensure the appropriate treatment of industrial waste, compliance with laws and regulations regarding the environment and chemical substance risk assessments.

In addition, the Risk Management Subcommittee selects serious risks across the organization and identifies risks related to natural disasters, infectious diseases, etc. and climate change as serious risks related to the environment.

link Page 80: Risk Management > Evaluation of material risks

## Metrics and targets

January 2022, We established the Sustainability Vision "asv2050/2030," with long-term practical targets for our sustainability activities. We have established this vision with a view to 2050, in order to respond to recent global trends regarding climate change, carbon neutrality and initiatives for the achievement of the SDGs, as well as the current social situation which requires that companies fulfill increasing demands for sustainability.

asv2050/2030 consists of asv2050, which indicates a direction to reach our ideal vision with 2050 as the target year, and asv2030, which sets various interim targets by backcasting toward 2030 as a milestone.

In February 2025, we established our Group Materiality 2025-2030, defining action items, KPIs, and measures for environmental themes (decarbonization, climate change, water management, waste and resource recycling, pollutants, and chemical substances.) The artience Group will strengthen its sustainability efforts, using the Group Materiality 2025-2030 after that as metrics for sustainability activities. The Group aims to achieve carbon neutrality by 2050.

link Page 10 to 11: Group Materiality 2025-2030

## State of compliance with environmental laws and regulations

No environmental accidents requiring an emergency response occurred in FY2025 at any business location of the artience Group in Japan or overseas. The Group received no administrative directives in Japan or overseas in connection with environmental laws and regulations (including those concerning water and pollution prevention.) We take appropriate response actions to redress deficiencies if we receive any instructions on them.

link Page 44: Environmental Data > Water Resource Management

## Acquisition status of ISO 14001 certification

The Group is working to acquire ISO 14001 certification, an environmental management system certification, for its manufacturing sites both domestically and internationally. Toyo Ink Hungary Kft. has newly acquired ISO 14001 certification.

As of FY2025, 28 of our 37 manufacturing sites have now acquired ISO 14001 certification, achieving a certification rate of 78%.

link Page 38: Environmental Data > Environmental management

## Environmental accounting

The Group calculates environmental conservation costs based on Japan's Ministry of the Environment (MOE) guidelines. By continuously tracking environmental conservation costs and effectiveness, we evaluate the efficiency of our environmental conservation activities.

link Page 40: Environmental Data > Environmental accounting

# Environmentally Friendly Products / Utilization of Life Cycle Assessment

## Basic approach

Based on the idea that reducing the environmental impact from products is important to environmental conservation, we formulated a Basic Environmental Policy (revised in January 2024.) We have long been striving to offer Environmentally Friendly Products* and services. To drive initiatives such as environmental conservation and sustainable procurement of raw materials, we utilize life cycle assessment (LCA) in manufacturing with a view to reducing our environmental impact throughout the product life cycle, including raw material procurement, production, use, disposal, and recycling of products.

* In January 2022, we defined "Sustainability-Enhancing Products" by integrating "Lifestyle Value" (aiming for a comfortable, healthy, and safe society) into "Environmental Value" (aiming for a society in harmony with the environment.) Conventional "Environmentally Friendly Products" are subsumed under "Environmental Value."

link Page 12: Sustainability-enhancing Products

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme: 1-1. Products & Services**

Increase sales of Sustainability-enhancing Products, mainly in the strategic priority businesses

① Expanding the lineup of Sustainability-enhancing Products (environmental / lifestyle value products)

### [Achievements]

| KPIs and measures | FY2025 |
|---|---|
| ① Expanding the lineup of Sustainability-enhancing Products (environmental / lifestyle value products) | · Trial of a service to support the promotion of energy-saving activities within companies and other activities |

**Theme: 1-2. Decarbonization**

Promote GHG emissions reduction and decarbonization throughout the value chain

① Initiate and promote calculation of Scope 4 (contribution to reducing GHG emissions downstream in the supply chain)

② Established in-house carbon footprint (CFP) calculation system based on international rules and completed application to specific product categories

③ Step up supplier engagement for the purpose of reducing Scope 3 emissions

### [Achievements]

| KPIs and measures | FY2025 |
|---|---|
| ① Initiate and promote calculation of Scope 4 (contribution to reducing GHG emissions downstream in the supply chain) | · Start of trial calculation for some of our products |
| ② Established in-house CFP calculation system based on international rules and completed application to specific product categories | · Development of the artience Group's CFP calculation rules<br>· Provided LCA assessment information for products to customers (881 cases) as part of efforts to utilize LCA in the supply chain |
| ③ Step up supplier engagement for the purpose of reducing Scope 3 emissions | · Implementation of supplier surveys. Engagement ratio of 34.7% |

WEB **Examples of the development and commercialization of products and services**
- March 25, 2025 news release: Trial of a service to support the promotion of energy-saving activities within companies
- June 2, 2025 news release: Toyochem develops UV-curable hot-melt adhesive with heat resistance over 100 °C
- July 9, 2025 news release: Exhibited Sciforiem™ series of life science products at ADLM 2025, one of the world's largest exhibitions for in-vitro diagnostics
- November 7, 2025 news release: Toyo Ink, Kyodo Production HD and Toyobo established a "horizontal recycling" scheme for product sample sheets for vending machines
- November 10, 2025 news release: Started horizontal recycling demonstration test of conductive sheet
- November 27, 2025 news release: Toyo Ink started offering a new version of the color scheme software Lioatlas™ CFUD ver.2.2

## Initiatives

### [Utilization of life cycle assessment]

The Group is working to visualize environmental impact using Life Cycle Assessment (LCA,) which is a method for quantitatively assessing the environmental impact of a product's life cycle, including raw material procurement, production, use, disposal, and recycling.

In response to growing calls for disclosure of greenhouse gas (GHG) emissions from Europe and other industries in recent years, and to provide the value of low-carbon and decarbonized products to solve climate change issues, we are working to establish a framework that includes the formulation of calculation rules and the development of systems for greenhouse gas emissions (carbon footprint, CFP) for each product.

Currently, we use average GHG emission factors that are publicly available, but will advance cooperation and collaboration with members of the supply chain to use actual emission factors, which will lead to the design, development, and provision of products with consideration for low carbon footprint.

### [Development of CFP calculation rules]

Amid the trend toward reducing greenhouse gas (GHG) emissions, it has become necessary to comply with international standards, calculate emissions from whole supply chains, coordinate data between companies and take other actions. It is becoming necessary to develop CFP calculation and verification rules for the visualization of GHG emissions from raw materials to the disposal of products.

The Group created the artience Group's CFP calculation rules with the help of the Sustainable Management Promotion Organization* with a view toward the establishment of our in-house CFP calculation system based on international rules.

* The Sustainable Management Promotion Organization (SuMPO) is an organization established in 2019 that aims to realize sustainable business management that balances the environment and the economy.

# Response to Climate Change

## Basic approach

The artience Group understands that responding to climate change is a material management issue with a huge impact on business activities. In view of the Paris Agreement and the targets set in line with the Japanese government's declaration that it is aiming to achieve carbon neutrality, the achievement of the carbon neutrality of production activities and minimization of greenhouse gas (GHG) emissions from all corporate activities in 2050 and other targets were set in the asv2050/2030 Sustainability Vision. We will work to reduce $CO_2$ emissions from corporate activities and accelerate the development of products and services that will help address climate change from the perspective of their life cycles and the markets for them.

We will proactively disclose information about our response to climate change in line with the framework laid out by the TCFD* recommendations.

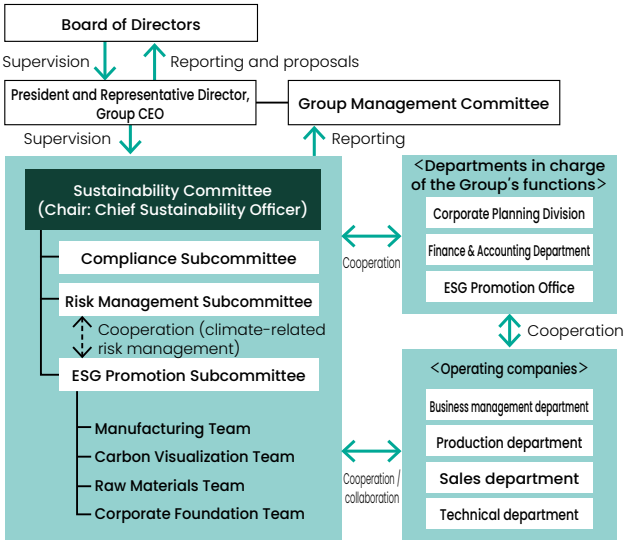
* The artience Group announced its support for the Task Force on Climate-Related Financial Disclosures (TCFD) in November 2020.

## Governance

The Sustainability Committee, which oversees the sustainability activities of the entire artience Group including climate change and promotes them across the organization, is supervised by the Board of Directors via the President and Representative Director. Important issues are discussed and resolved by the Group Executive Committee, and then reported to the Board of Directors for approval.

The President and Representative Director oversees the Sustainability Committee as the chief supervisor for the Group's response to climate change, taking ultimate responsibility for management decisions relating to the group-wide sustainability activities, and appointing a Chief Sustainability Officer as the executive officer in charge of sustainability activities. Subordinate to this committee, the ESG Promotion Subcommittee plans and implements specific activities relating to the group-wide sustainability, including the response to climate change.

### System for addressing climate change (FY2026)




### Report on climate change to management (Board of Directors and Group Management Committee)

| | Contents of report |
|---|---|
| February 2025 | Explanation of contents of new materiality (including detailed explanation of climate-related themes) |
| March 2025 | Reports on activities in FY2024 and explanations on the activity policy for FY2025 at the Sustainability Committee meeting |
| July 2025 | Report on activities during the fiscal year at the Sustainability Conference, a group-wide meeting |
| March 2026 | Report on progress in decarbonization at a Group Management Committee meeting |

| Committees / organizations | Roles and activities |
|---|---|
| Board of Directors | Approves and supervises all initiatives relating to climate change that have been resolved by the Group Management Committee. |
| Group Management Committee | Discusses and resolves important issues relating to addressing climate change and reports to the Board of Directors. |
| Sustainability Conference | A group-wide meeting held on an annual basis where reports are presented on the progress in sustainability activities, including responses to climate change. |
| Sustainability Committee | **Responsible: Chief Sustainability Officer**<br>Discusses specific policies, plans and measures to tackle climate change and reports them to the Board of Directors and to the Group Management Committee. |
| ESG Promotion Subcommittee | **Responsible: General Manager of ESG Promotion Office**<br>Drafts and formulates specific policies, plans and measures against climate change and carries out activities in collaboration with departments and subsidiaries. Meetings are held four times a year. |
| Manufacturing Team | Support for implementing measures to reduce GHG emissions at each production site, aggregation and sharing of information, cross-organizational planning. |
| Carbon Visualization Team | Formulates rules, builds systems, and structures the organizational framework relating to visualization of CFP. |
| Raw Materials Team | Works to build a sustainable supply chain and transition to low-carbon raw materials to reduce Scope 3 emissions. |
| Corporate Foundation Team | Strategy development and disclosure practices for climate change information disclosure based on the TCFD recommendations. |
| Risk Management Subcommittee | **Responsible: General Manager of General Affairs Department**<br>Identifies, analyzes, and evaluates climate-related risks in the same way as other corporate risks, in cooperation with the ESG Promotion Subcommittee. Meetings are held twice a year. |
| Departments in charge of the Group's functions | Carries out practical work, such as the incorporation of climate actions into management plans, earmarking of budgets for them, legal actions, strengthening of human capital, and the distribution of information to insiders and outsiders. |
| ESG Promotion Office | Incorporates climate actions more intensively into management and business plans, develops specific activities for climate goals and appropriates budgets to these activities in collaboration with the management layer, the group function division and corporate management divisions of operating companies. |
| Operating companies | In collaboration with the ESG Promotion Subcommittee and the business divisions (corporate management, production, technical and sales) separately work to incorporate climate-related actions into business plans, carry out the actions, collaborate with raw material suppliers, change the production process, conduct marketing and sales promotion of low-carbon products and undertake research and development efforts for technologies aimed at decarbonization. |

# Response to Climate Change

## Risk management

### [Risk / opportunity management process]

The Group has established a group-wide risk management system centered on the Risk Management Subcommittee. We recognize that climate-related risks, like other corporate risks, are factors that affect the sustainable growth of the Group, and that taking appropriate measures will lead not only to preventing the actualization of risks and the mitigation of their impact when they actualized, but also to opportunities such as increasing profits and improving the reputation in the market. The ESG Promotion Subcommittee manages climate-related risks and opportunities in cooperation with the Risk Management Subcommittee, applying the same management process as for corporate risks in general.

The ESG Promotion Subcommittee identifies and assesses climate-related risks and opportunities and reports them to the Group Management Committee and to the Board of Directors. It organizes a Sustainability Conference as a group-wide meeting on an annual basis to provide not only the management layer and managers of divisions in group companies but also general employees with opportunities to hear discussions in a bid to share information and views in the Group. It also provides education and training related to climate by means of e-learning to all employees to raise awareness, to update them with the latest information and to develop their ability to perceive risks. Management layer and Group companies incorporate response measures and action plans based on these risks and opportunities into their management plans and business plans, and reflect them in specific measures.

### [Process for identifying and assessing risks / opportunities] (conducted from December 2021 to May 2022)

Using a matrix of the categories of the risk and opportunity categories defined by the TCFD recommendations (Transition Risks: Policy and Legal, Technology, Markets, and Reputation; Physical Risks: Acute and Chronic; Opportunities: Resource Efficiency, Energy Sources, Products and Services, Markets, and Resilience) and the Group's value chain processes (procurement, production, logistics, sales, R&D, management, use, and disposal,) we exhaustively extracted risks and opportunities associated with climate change. The validity of the extracted results (i.e. whether or not they are matched with the practical work and the on-the-spot situation) was confirmed through a workshop for department managers at each Group company. We summarized the risks and opportunities, then, evaluated their impact on two axes: financial impact and likelihood of occurrence (scenario analysis.) In this way, we identified four key risks and two key opportunities based on the evaluation results.

**■Risk / opportunity identifying process**

| Identifying risks / opportunities | Validation by practical departments | Sorting and summarizing of extracted results | Financial impact assessment | Identification of risks / opportunities | Consideration of response measures |
|---|---|---|---|---|---|
| Comprehensively identified risks / opportunities by a team led by the ESG Promotion Subcommittee (approximately 300 items) | Confirmation of consistency between extracted results and actual real-world conditions through workshops with department managers | Organized identified risks / opportunities and summarized them into 41 items | Evaluated the importance of each item based on the financial impact and likelihood of occurrence | Identification of four risks and two opportunities with significant impacts and checks on the details of the impacts | Confirmation of state of response to identified risks / opportunities and consideration of future measures and actions |

**■Risks / opportunities organized and summarized in the process of identifying risks / opportunities (partial list)**

| | | |
|---|---|---|
| Transition risks | Policy and legal | ・Cost increases due to introduction of carbon taxes and soaring emissions trading prices<br>・Toughening and/or changing of environmental regulations on GHG emissions, etc., and their impact on production facilities |
| | Technology | ・Decline in the value of existing technologies accompanying the transition to a decarbonized society<br>・Increasing costs of investment in equipment, human resources development and R&D accompanying the transition to low-emission products |
| | Market | ・Decline in demand for packaging- and printing-related items, etc., accompanying the transition to a circular economy and decarbonization<br>・Rise in raw material and energy prices due to the use of non-fossil and recycled raw materials and compliance with regulations |
| | Reputation | ・Declining preference due to inability to demands from customer for reducing GHG emissions |
| Physical risk | Acute | ・Failure to fulfill supply responsibilities or loss of business opportunities due to supply chain disruptions as a result of climate-related disasters<br>・Damage to equipment and facilities caused by climate-related disasters, increased recovery costs and loss of business opportunities due to infrastructure stoppages |
| | Chronic | ・Increase in measures and relocation costs for bases located in flood and drought risk areas |
| Opportunities | | ・Increase in sales due to growing customer demand for products that lead to energy conservation, reduction of GHG emissions and recycling of resources<br>・Capture of business opportunities due to market creation and growth for new climate-related businesses (carbon-neutral materials and products for combating infectious diseases) |

# Response to Climate Change

## Strategy

### [Basic strategies]

The artience Group recognizes that the policies and measures taken by national and local governments in response to global climate change have a significant impact on market conditions, the procurement of raw materials and consumer preferences and may have a strong impact on business continuity and business performance in the future.

Under asv2050 / 2030, we have set achieving carbon neutrality in the Group's production activities as our long-term goal asv2050, our desired state for 2050. As our interim goal asv2030, and also as goals (KPIs/measures) for Group Materiality 2025-2030, we have set the goals of reducing global Scope 1 and Scope 2 emissions by 26% compared to FY2020 by 2030, achieving an 80% ratio of sales from sustainability-enhancing products, and expanding our lineup of products that contribute to reducing $CO_2$ emissions from a lifecycle perspective.

To strategically advance toward achieving our goals from various perspectives, the production division is making environmentally focused capital investments, such as electrifying production equipment (including switching to LED lighting) and installing solar power generation equipment. In development and marketing, we are engaged in efforts that span the entire supply chain. These include developing and providing products that contribute to reducing $CO_2$ emissions, and building resource circulation systems through collaboration with our customers.

WEB The Policy on Climate Change is posted on our website under [Sustainability > Related Policies and Guidelines.]

### [Scenario-based analysis]

The purpose of scenario-based analysis is to grasp and understand risks and opportunities that will arise from anticipated climate change and what kind of impact they will have on the Group, confirm the resilience of the Group's sustainable growth strategy in the expected future, and consider the need for further measures.

We conducted a scenario analysis on four risks and two opportunities identified by the Group, referring to two climate change scenarios (1.5°C and 4°C) proposed by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC.)

**■Results of scenario-based analysis**

| Categories | Risks / opportunities | 1.5°C scenario | | 4°C scenario | | Periods of increased impact | Countermeasures / actions |
|---|---|---|---|---|---|---|---|
| | | Financial impact | Expressivity | Financial impact | Expressivity | | |
| Transition risks: Legal, Market | Rising raw material and energy prices | 3 | 3 | 2 | 3 | Medium | · Reduction of high-cost raw materials by reviewing formulations and changing product lineups<br>· Stable procurement of raw materials through review of contracts with suppliers<br>· Reduction of energy consumption by shortening transportation distances, by promoting local production for local consumption |
| Transition risks: Technology, Market, Reputation | Decline in demand for packaging- and printing-related items | 3 | 3 | 2 | 2 | Short | · Review of the business portfolio<br>· Enhancing superiority by increasing environmental performance and low-emission characteristics of products<br>· Appealing to customers regarding value-added products through CFP labeling<br>· Rollout of products that support use of low-carbon packaging materials |
| Transition risks: Policy and legal | Increased impact of carbon prices on costs | 3 | 3 | 2 | 3 | Short | · Transferring increases in raw material prices due to carbon taxes to product prices<br>· Reduction and elimination of high-carbon raw materials through product formulation reforms<br>· Active shift toward electricity derived from renewable energy<br>· Avoiding the purchase of emissions credits by rigorous reduction of direct emissions |
| Physical risks: Acute | Loss of business opportunities due to the intensification of climate-related disasters | 2 | 2 | 3 | 3 | Long | · Enhancing disaster readiness through BCM<br>· Construction of a complementary domestic and overseas production network that includes other companies in the same industry<br>· Diversification of sources of raw materials and modes of transport |
| Opportunities: Energy source, Products and services | Increased sales of low-emission products | 3 | 3 | 2 | 3 | Short | · Prioritizing selection and securing supplies of low-emission raw materials<br>· Reducing $CO_2$ emissions from production activities<br>· Expanding lineup of products that consider low emissions from a life cycle assessment (LCA) perspective (e.g., heating/pretreatment at the time of use not necessary, easy to recycle)<br>· Pursuing R&D and commercialization of carbon-negative materials |
| Opportunities: Products and services, Market | Acquisition of business opportunities such as materials for combating extreme heat and infectious diseases | 2 | 3 | 3 | 3 | Long | · Pursuing R&D and commercialization of materials to combat deterioration of living conditions (hot weather) due to climate change<br>· Pursuing R&D and commercialization of medical-related materials (e.g., drug discovery, medication, medical devices and prevention of infections) |

Financial impact: 3= impact of several billion JPY or higher; 2=impact of around one billion JPY; 1=impact of less than one billion JPY
Likelihood of occurrence: 3=already occurring at the present time, or almost certain to occur in the future; 2=relatively high likelihood of occurrence; 1=low likelihood of occurrence
Period of increase in impact: Short-term = around 1 year (period of annual plan) Medium-term = around 3 years (period of medium-term management plan) Long-term = around 10 years (interim target year of asv2050/2030 = period up to FY2030)
For our 1.5° C scenario, we refer to the IEA World Energy Outlook: Net Zero Emission by 2050 Scenario and IPCC: SSP1-1.9 scenario.
For our 4° C scenario, we refer to IEA World Energy Outlook: Stated Policy Scenario and IPCC: SSP5-8.5 scenario.
Scope of analysis: Existing businesses of the entire Group and new businesses anticipated at this time

# Response to Climate Change

## [Quantitative analysis ①: Amount of impact from carbon taxes]

As a Group whose main business is chemical manufacturing, and which has a large amount of $CO_2$ emissions from its production activities, we recognize that the introduction of carbon taxes in the regions where we operate both in Japan and overseas will have a strong impact on the Group's finances.

The Group has therefore quantitatively analyzed the extent to which the interim targets of the asv2050/2030 sustainability vision —$CO_2$ emissions: 35% reduction in Japan (from the FY2020 level,) 35% reduction in other countries (compared to the FY2030 BAU) —will reduce the financial impact of carbon taxes. For both scenarios used in the analysis, we confirmed that achieving the asv2030 targets would reduce the impact by approximately 38%.

### ■Amount of impact from carbon taxes

| | | 1.5°C scenario | 4°C scenario |
|---|---|---|---|
| Carbon tax per ton of emissions*1 (2030) | | 14,950 JPY/t-$CO_2$ | 7,475 JPY/t-$CO_2$ |
| FY2030BAU*2 | $CO_2$ emissions | Japan: 88,400 t-$CO_2$ Overseas: 146,000 t-$CO_2$ | |
| | Impact from carbon tax | 3.51 billion JPY | 1.74 billion JPY |
| When asv2030 targets are achieved | $CO_2$ emissions | Japan: 50,000t-$CO_2$ Overseas: 95,000t-$CO_2$ | |
| | Impact from carbon tax | 2.17 billion JPY | 1.08 billion JPY |
| Difference | | -1.34 billion JPY | -0.66 billion JPY |

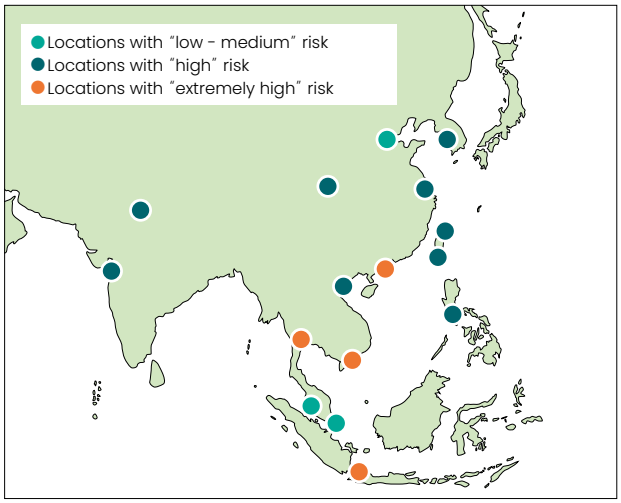
*1 For a carbon tax per ton of emissions, we referred to the IEA World Energy Outlook 2021. The 1.5°C scenario quotes the carbon tax price for developed countries given by the Net Zero Emission by 2050 Scenario, while the 4°C scenario quotes the EU carbon tax price given by the Stated Policy Scenario.
*2 The FY2030 BAU assumes that domestic and overseas activity (net sales) will increase by 15% and 23%, respectively, in comparison with FY2020, and that emissions intensity will remain unchanged from FY2020.

## [Quantitative analysis ②: Amount of damage in the event of flooding in areas with high water risk]

The Group uses the World Resources Institute (WRI) water risk assessment tool Aqueduct 4.0 to assess physical risks (quantitative and qualitative,) water stress, flood risk, and regulatory and reputational risks on a river basin level. As a result, more than half of our overseas offices in Asia (Southeast Asia, India, China, Taiwan, and South Korea) have been assessed as having some kind of water risk (high to significantly high.) In particular, the risk of flooding is significantly high in China (South China,) Vietnam, and Indonesia.

In 2023, we estimated the amount of damage caused by flooding at three business sites located in areas indicated as having a high flood risk. At business sites located in such high-risk areas, we are working to reduce risks by deploying countermeasures implemented by Toyo Ink (Thailand) Co., Ltd. (Thailand) —which has experienced large-scale flood damage in the past —across the board.

### ■Assessment of flood risk by Aqueduct




### ■Amount of damage in the event of flooding*1 at business sites in areas with high flood risk (estimated)

| Category | Specific damage | Number of locations | Amount of damage (estimated) |
|---|---|---|---|
| Direct damage*2 | Damage to buildings (offices, factories, warehouses, etc.) | 3 | 2,429 million JPY |
| | Damage to equipment (production equipment, vehicles, office equipment, etc.) | 3 | 6,618 million JPY |
| | Damage to inventory (products, work in process, raw materials, etc.) | 3 | 6,816 million JPY |
| Indirect damage*3 | Opportunity losses due to shutdowns | 3 | 7,326 million JPY |
| Other damages | | — | — |
| Total | | | 23,189 million JPY |

*1 Under the climate scenario of a 4°C rise at the end of the 21st century, we assumed that floods would occur on a scale of about once every 100 years.
*2 We set damage ratios for each depth of inundation (flooding,) and estimated the amount of damage to buildings, equipment, and inventory at each business site.
*3 We set an average number of shutdown days for each depth of inundation, estimated the number of days of shutdown for each affected site, and estimated the amount of opportunity losses.

# Response to Climate Change

## Metrics and targets

### [Scope1 + 2 emissions] (indicator for risk)

Under asv2050/2030, we have set achieving carbon neutrality in the Group's production activities as our long-term goal asv2050, our desired state for 2050. As our interim goal asv2030 and also as a target (KPI/measure) for Group Materiality 2025-2030, we have set the goal of reducing global Scope 1 and Scope 2 emissions by 26% compared to FY2020 levels by 2030.

Our measures to achieve these targets can be classified into three aspects: reducing energy consumption, shifting to low-carbon energy, and shifting to low-carbon power. In Japan, co-generation systems are in operation at many production bases. Our efforts will center on shifting to low-carbon energy, such as changing fuels for system into lower-carbon fuels and electrification of production facilities. Overseas, the electrification of production equipment is advancing. We will continue to drive the electrification of production equipment (such as switching to LED lighting) and focus our efforts on decarbonizing our power supply (including installing solar power generation equipment and sourcing purchased electricity from renewable energy sources.)

**■Relevant themes in Group Materiality 2025-2030**

**Theme: 1-2. Decarbonization**

Promote GHG emissions reduction and decarbonization throughout the value chain

① Initiate and promote calculation of Scope 4 (contribution to reducing GHG emissions downstream in the supply chain)
② Established in-house carbon footprint (CFP) calculation system based on international rules and completed application to specific product categories
③ Step up supplier engagement for the purpose of reducing Scope 3 emissions

**Theme: 2-1. Climate Change**

Tackle to reduce GHG emissions taking every possible measures and contribute to mitigating climate change

① Scope 1 and 2 emissions (global): 26% reduction from FY2020 level
[$CO_2$ emissions: 35% reduction in Japan from the FY2020 level, 35% reduction overseas compared to the FY2030 BAU]
② Carry out initiatives to reduce Scope 3 emissions

**■Direction and major measures towards reducing $CO_2$ emissions**

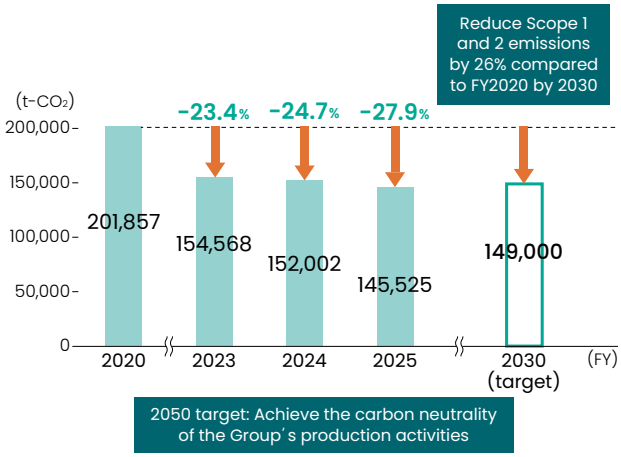
| Direction of measures | Major reduction measures |
|---|---|
| Reduction of energy consumption | · Energy conservation (eliminating energy loss in processes)<br>· Production process reform from an energy-saving perspective |
| Low carbonization of energy | · Electrification of production equipment (reducing direct emissions)<br>· Preparation and research for the use of LNG alternative fuels |
| Low carbonization of electric power | · Introducing low-carbon power (reducing indirect emissions)<br>· Introducing renewable energy equipment |

### [Achievements]

**Scope 1 ·2 emissions**

In FY2025, the Group's overall Scope 1 and 2 emissions were 145,525 tons (4.3% decrease year on year.) Emissions in Japan increased due to changes in emission factors, while overseas emissions decreased due to changes in emission factors and the introduction of solar power equipment.

**■Changes in Scope 1 ·2 emissions and targets**




**■Breakdown of Scope 1 and Scope 2 emissions (FY2025)**

(Unit:t-$CO_2$)

| | Japan | Overseas | Group total |
|---|---|---|---|
| Scope1 | 42,530 | 21,060 | 63,590 |
| Scope2 | 23,411 | 58,524 | 81,935 |
| Total | 65,941 | 79,584 | 145,525 |

# Response to Climate Change

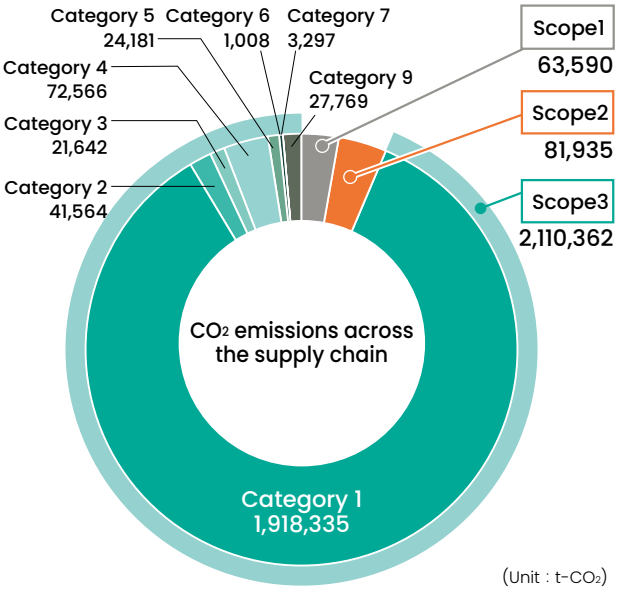
**$CO_2$ emissions across the supply chain (Scope 3)**

We calculated $CO_2$ emissions associated with our business activities from the upstream to the downstream of our supply chain, in accordance with the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain.

Regarding emissions in the upstream and downstream of our supply chain (Scope 3,) 12 out of 15 categories shown in the Basic Guidelines were calculated. However, calculations of processing, use, and disposal of products sold (Categories 10, 11, and 12) were not made over the entire scope of calculations because the products are diverse and therefore it is difficult to identify the scenarios for such processing, use, and disposal of products sold.

The calculation revealed that Category 1 emissions (emission from all purchased goods and services) were the largest proportion of total emissions (90.9%.) We will continue our efforts to visualize emissions using life cycle assessments (LCAs,) to share and analyze emissions data in collaboration with suppliers and to improve the efficiency of logistics with a view toward increasing the accuracy of calculations and reducing $CO_2$ emissions.

**■Breakdown of $CO_2$ emissions across the supply chain (FY2025)**

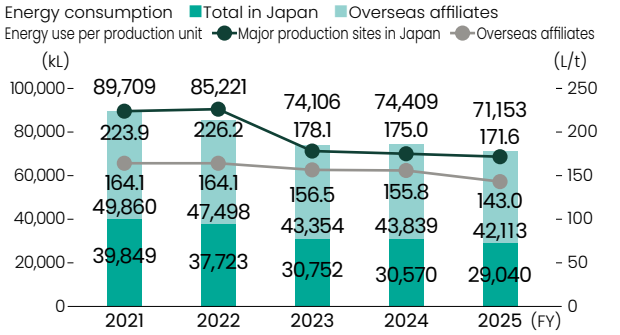



* For details about the method and scope of calculation, see pages 41 to 42 in the Environmental Data.

## [Energy consumption]

For FY2025, energy consumption in the whole artience Group reached 71,153 kL, down 4.4% year on year. This decrease in energy consumption reflects a fall in production volume. Specific energy consumption (energy consumed for producing one ton of product) decreased due partly to the product mix. We will continue to strive mainly to reduce energy consumption and to decarbonize energy.

**■Changes in energy consumption and specific energy consumption**




Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

link Page 41 to 42: Environmental Data > Response to Climate Change

## Initiatives

### [Introduction of cogeneration system]

In the artience Group, the Fuji Factory of Toyocolor Co., Ltd., the Kawagoe Factory of Toyochem Co., Ltd., and the Moriyama Factory of Toyo Visual Solutions Co., Ltd. introduced cogeneration systems with electricity generation capacity of 5,750 kW, 5,700 kW, and 400 kW, respectively. These systems enabled the factories to achieve efficient use of electric power and heat.

### [Air leak reduction activities]

We are conducting air leak reduction activities to check whether air leaks are occurring in our production sites and factories using dedicated equipment to detect air leaks. By eliminating air leaks, it is possible to reduce wasted power generated by air compressors, etc., which leads to energy savings and reductions in $CO_2$ emissions.



An employee checking for air leaks

# Response to Climate Change

## [Renewable energy initiatives]

The artience Group has set achieving carbon neutrality in its production activities as its vision for 2050 under asv2050. As an interim target for asv2030, and also as a goal (KPI / measure) under Group Materiality 2025-2030, we have set the target of reducing global Scope 1 and 2 emissions by 26% compared to FY2020 levels by 2030. To achieve these goals, we are driving the decarbonization of electric power as one of three key initiatives.

**State of introduction of renewable energy facilities**

A solar power generation system with a capacity of 425 kW was introduced at the Moriyama Factory in December 2014, a 1,358 kW system was introduced at the Okayama Factory in January 2015, and a 1,000 kW system was introduced at the Tsukuba area in April 2016 for the purposes of reducing $CO_2$ emissions, increasing the energy self-efficiency rate, reinforcing the infrastructure, and other purposes. With these systems, we launched electric power selling business under the feed-in tariff (FIT.)

We also installed small, 50kW class power generation systems in four locations —Saitama Factory, Kawagoe Factory, Fuji Factory, and Kawaguchi Center —in January 2015. Since then, we have continued to increase our facilities through new and additional installations. The power generated from these systems is used at each location, which reduces the amount of power purchased at each and lessens peak power consumption in summer.

We have introduced solar power generation facilities to multiple overseas bases. In January 2021, Toyo Ink India Pvt. Ltd. introduced solar power generation facilities supplying around 20% of the power consumed at the Gujarat Plant in order to transform it into a green factory with lower $CO_2$ emissions.

### Introduction of renewable energy power generation facilities

| | |
|---|---|
| Japan | ・**Solar power generation facilities (introduction of electricity sales business):**<br>Moriyama Factory, Okayama Plant, Tsukuba area<br>・**Solar power generation facilities:**<br>Saitama Factory, Kawagoe Factory, Fuji Factory, Kawaguchi Center, Matsui Chemical Co., Ltd.<br>・**PPA solar power generation facilities:**<br>Moriyama Factory, Fuji Factory, Kawagoe Factory (new Tech and Admin building) |
| Overseas | ・**Solar power generation facilities:**<br>Toyo Ink India Pvt. Ltd. (India,) Sam Young Ink & Paint Mfg. Co., Ltd. (South Korea,) Zhuhai Toyocolor Co., Ltd. (China,) Jiangmen Toyo Ink Co., Ltd. (China,) Toyo Ink Hungary Kft. (Hungary,) Toyo Ink Europe N.V. (Belgium) |

### Status of solar power generation and $CO_2$ emission reductions (FY2025)

| | Japan | Overseas |
|---|---|---|
| Power selling | 3,462 thousand kWh | - |
| | 1,558t-$CO_2$ | - |
| Self-consumption | 1,980 thousand kWh | 10,139 thousand kWh |
| | 1,102t-$CO_2$ | 4,990t-$CO_2$ |

**Shift to renewable energy**

The artience Group is changing the power used in areas used as offices and the power used at production bases to renewable energy. In December 2021, Toyo Ink Co., Ltd. changed the power used at its Kansai Branch Office (Daibiru Honkan Bldg.) to renewable energy. In 2022, the head office of artience Co., Ltd. (Kyobashi Edogrand Bldg.,) Moriyama Factory of Toyo Visual Solutions Co., Ltd., Saitama Plant of Toyo-Morton, Ltd. also switched the electric power to renewable energy. Overseas, Toyo Ink Europe N.V. (Belgium) has switched all of its purchased electric power to renewable energy.

**Reduction of $CO_2$ emissions through the purchase of certificates**

Toyo Ink Brasil Ltda. (Brazil) has been reducing its $CO_2$ emissions through the purchase of certificates since 2023.

## TOPICS

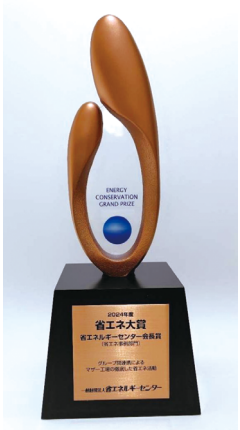
### Energy Conservation Grand Prize

The artience Group was awarded the Energy Conservation Center Chairman's Award in the Energy Conservation Case Study category of the Energy Conservation Grand Prize* 2024, in recognition of its "thorough energy conservation activities at the mother factory through group-wide collaboration" at Saitama Factory of Toyo Ink Co., Ltd.

At Saitama Factory, we used business intelligence (BI) tools to utilize buried data and established energy-saving activities through the participation of all employees. As a result of energy-saving activities, overall energy consumption at the Saitama Factory was reduced by 1,982 kL (crude oil equivalent) compared to FY2020, while $CO_2$ emissions were reduced by 3,484 t-$CO_2$, and energy intensity improved by 13.4%.

These efforts and energy-saving results were recognized with a joint award, shared by artience Co., Ltd., Saitama Factory of Toyo Ink Co., Ltd., and Kawagoe Factory of Toyochem Co., Ltd.

* The Energy Conservation Center, Japan (ECCJ,) honors the outstanding energy conservation activities of business operators and workplaces that set the examples to be followed by others and the products and business models that demonstrate excellent energy conservation.



# Response to Climate Change

## [Climate change initiatives]

As a group, we believe it is important to contribute to the realization of a sustainable society through our business activities, and to collaborate not only internally but also with various international organizations, government agencies, companies, and industry associations. We participate in initiatives aimed at mitigating climate change, and engage in various activities.

**Participation in the Japan Climate Initiative**

In March 2023, the artience Group joined the Japan Climate Initiative (JCI) in support of its activities for alleviating climate change. The JCI is a network that was established for activating information delivery and exchanging opinions among companies, local governments, non-governmental organizations (NGOs) and other entities actively tackling climate change. It currently has around 830 corporates, local governments and other members in Japan.

**Participation in the GX Future Consortium (formerly GX League)**

In February 2024, artience Co., Ltd. joined the GX League, which was established based on the GX League Basic Concept announced by the Ministry of Economy, Trade and Industry to address the reduction of GHG emissions. As the GX League's operations ended with a report on its achievements in FY2025, we joined the GX Future League under the GX Future Consortium, an organization succeeding the GX League, to continue GHG emissions reduction activities.

## [Response to external evaluations]

The Group responds to questionnaire surveys provided by CDP*. In FY2025, we responded to the climate change questionnaire and the water security questionnaire. For FY2025, we received CDP scores of B in climate change and B in water security.

* It is an international non-governmental organization that works in the area of the environment. It sends surveys on the environment to companies and organize their responses to make an analysis and assessment by a common standard.

## Third-party verification of $CO_2$ emissions data

artience Co., Ltd. has undergone third-party verification of its Scope 1 and 2 greenhouse gas ($CO_2$) emissions of the artience Group (coverage 96%,) as well as of energy consumption at its major production sites in Japan (Fuji Factory, Kawagoe Factory, Saitama Factory and Moriyama Factory.)

* Details of target organizations are listed on page 41.

link Page 41 to 42: Environmental Data > Response to Climate Change

## TOPICS

### Creation of *Basic Materials on Carbon Neutrality* for employee training

*Basic Materials on Carbon Neutrality* extensively details information from basic terms to practical applications with a view toward increasing all artience Group employees' understanding of carbon neutrality. It helps develop understanding of carbon footprint (CFP) from general knowledge on GHG emissions calculation.

In the future, we will make more use of this document as instructional materials for internal and self-directed training programs and the acquisition of knowledge before solutions are proposed to suppliers and customers.

## TOPICS

### Toyo-Morton Saitama Factory Introduces Carbon Offset City Gas with Net Zero $CO_2$ Emissions

Toyo-Morton, Ltd., a company of artience Group, has switched all city gas used at its Saitama Plant (Hiki District, Saitama Prefecture,) which manufactures and develops laminating adhesives, to Carbon Offset City Gas (Contributing to the Global Environment) with net-zero $CO_2$ emissions starting August 1, 2026. As a result, $CO_2$ emissions will be reduced by approximately 300 tons annually.

The newly introduced Carbon Offset City Gas (Contributing to the Global Environment) utilizes voluntary credits issued and traded by private sector entities such as companies and NGOs. By offsetting greenhouse gases generated throughout the entire value chain from natural gas extraction to combustion with $CO_2$ credits generated by global environmental conservation projects in emerging countries and other countries, $CO_2$ emissions can be considered zero globally.

At the Saitama Plant, in April 2022, all electricity used was switched to effectively renewable energy sources using tracking FIT non-fossil certificates, resulting in a $CO_2$ emission reduction of over 99% compared to before March 2022. This initiative is the first case at our group's production sites in Japan.

# Water Resource Management

## Basic approach

Based on our recognition that water resources constitute an important natural resource, we at the artience Group are striving to reduce water consumption and the amount of wastewater, alleviate the impact of wastewater on the environment and living organisms, and identify and reduce water-related risks that will affect our business continuity.

In addition to asv2050 / 2030, we have formulated Group Materiality 2025-2030 (formulated in February 2025) and established medium- and long-term goals, KPIs, and measures for water management. To achieve the target, we will reduce water consumption by fully leveraging circulation cooling, reusing and recycling used water, and developing production processes that do not require water.

## Risk Management

To understand risks related to water use and address them, the artience Group assesses quantitative risk, qualitative risk, regulatory risk, and reputation risk at the basin level using Aqueduct Water Risk Atlas 4.0, an assessment tool of the World Resources Institute.

The Group will continue to take steps to use water effectively and reduce water consumption to mitigate water stress risk and water demand risk, which are expected to worsen in the future as indicated in the assessment results.

### [Assessment of water risk and countermeasures]

In the assessment results of Aqueduct, no business sites in Japan have been assessed as having a high overall water risk or an extremely high overall water risk. However, seven business sites have been assessed as having a high quantitative risk. In Asian region other than Japan (Southeast Asia, India, China, Taiwan, and South Korea,) more than half of the business sites have been assessed as having a high or extremely high overall water risk, qualitative risk and quantitative risk. The assessment shows that water stress risk is extremely high in Thailand and India, river flooding risk is extremely high in Vietnam and Indonesia, and coastal flooding risk is extremely high in South China. Qualitative risk is extremely high in Southeast Asia and India.

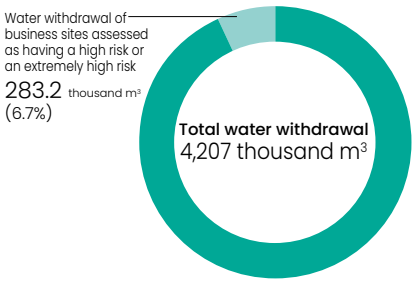
The forecast for 2030 in the Aqueduct BAU (business as usual) scenario shows that water stress risk will worsen at 17 business sites and water demand risk will worsen at 24 business sites. In particular, water stress is evaluated as "predicted to worsen significantly" in Thailand and India.

Based on the assessment results, at business sites that have a high flood risk, to prepare for the future floods, the Group takes the flood control measures (relocating electric equipment, using sandbags, clarifying procedures for cutting off power, etc.,) which are taken at Toyo Ink (Thailand) Co., Ltd., which has experienced massive flooding.

**■Water risk assessment for each business site (Number of business sites assessed as having a high risk or an extremely high risk)**

| Area | Number of locations | Overall water risk | Quantitative risk | Water stress | Water depletion | Seasonal fluctuations | Groundwater level decline | River flood risk | Coastal flood risk | Drought risk | Qualitative risk | Untreated wastewater | Regulatory and reputational risk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Japan | 13 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Asia (excluding Japan) | 21 | 12 | 14 | 9 | 4 | 1 | 2 | 7 | 5 | 2 | 12 | 15 | 4 |
| Europe | 4 | 1 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Americas | 5 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 43 | 13 | 27 | 14 | 5 | 1 | 2 | 7 | 5 | 2 | 12 | 15 | 4 |

**■Ratio to total water withdrawal of business sites assessed as having a high risk or an extremely high risk (FY2025)**



# Water Resource Management

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme 2-2. Water Management**

Improve water use at production sites and contribute to preserving the natural and living environment

① Carry out water resources conservation activities at sites located in water-risk areas (droughts, floods, lacking purified water)

② Promote water recycling activities and calculate the recycling ratio

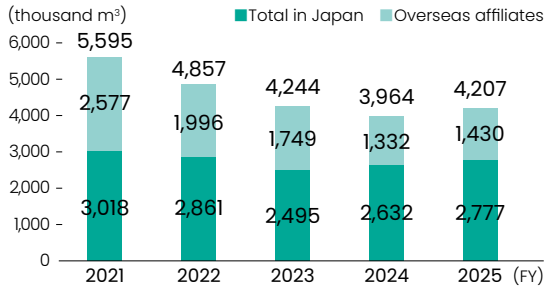
### [Achievements]

| KPIs and measures | FY2025 |
|---|---|
| ① Carry out water resources conservation activities at sites located in water-risk areas (droughts, floods, lacking purified water) | · Conducted greening activities on premises and continued to participate in environmental beautification activities on July 1 (Lake Biwa Day) (Moriyama Factory of Toyo Visual Solutions Co., Ltd.)<br>· Participation in cleanups and water quality improvement project activities for conserving the canal environment (Toyo Ink (Thailand) Co., Ltd.)<br>· Pond cleanup in cooperation with local inhabitants on Environment Day (Toyo Ink India Pvt. Ltd.) |
| ② Implement water recycling activities and calculate the recycling ratio | · Start of consideration and trial implementation of a recycling ratio calculation method |

### [Water consumption]

In FY2025, total water consumption at the artience Group's production sites in Japan was 2,777 thousand m³ (increased by 5.5% YoY) and 93.3% of the water was groundwater. Water consumption of our overseas affiliates was 1,430 thousand m³ , an increase from the previous fiscal year.

**■Changes in water consumption**




Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

link Page 43: Environmental Data > Water Resource Management

## Initiatives

### [Water recycling and efficient water use]

At the artience Group, we have been striving to reduce water consumption through measures such as circulation cooling and reusing groundwater as process water (for reaction and washing) after using it as cooling water.

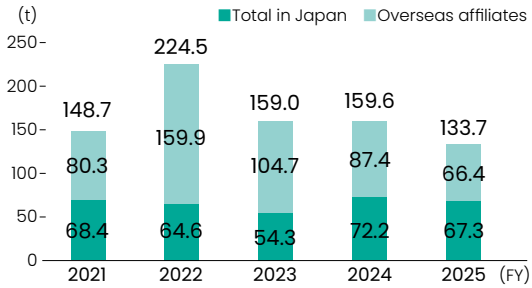
In FY2025, we considered a method for calculating the recycling ratio in Japan and began the trial implementation of it.

### [Prevention of water pollution]

To measure indicators in wastewater that cause water pollution, TOC meters, COD meters, turbidity meters, and pH meters are placed appropriately in the wastewater paths of factories, and monitored remotely. For factories with a large COD burden, we have established voluntary standards that are stricter than the national and prefectural standards, and have notified the government and complied with them.

In FY2025, COD emissions in Japan were 67.3t (down 6.8% YoY) and 66.4 t overseas (down 24.0% YoY.)

**■Changes in COD emissions**




Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

### [Communication in regions with high water stress]

In Thailand and India, where water stress is high, we proactively conduct water cleanup activities and tree-planting activities aimed at protecting the environment in collaboration with government authorities and local communities. In India, we work with governments to construct reservoirs for local residents.

# Resource Circulation

## Basic approach

The artience Group has included the 3R promotion* and initiatives to recycle plastic resources and reduce plastic waste in the KPIs and measures of the Group Materiality 2025-2030, and is working to reduce its environmental impact in manufacturing and recycle resources in the value chain. In this way, we aim to contribute to a sustainable society through our business.

To create a resource-recycling society that effectively utilizes limited resources and minimizes environmental impact, it is essential for society as a whole to work together, transcending industry boundaries. The Group is working to recycle plastics through the establishment of a recycling system in collaboration with partners in various ways, not only alone but also in conjunction with other industries.

* 3R promotion refers to promoting the Three Rs (3Rs): Reduce, Reuse, and Recycle.

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme: 2-3. Wastes / Resource Circulation**

Reduce waste from production sites and offices and encourage resource circulation in the value chain

① Carry out initiatives for plastic resource circulation and plastic waste reduction

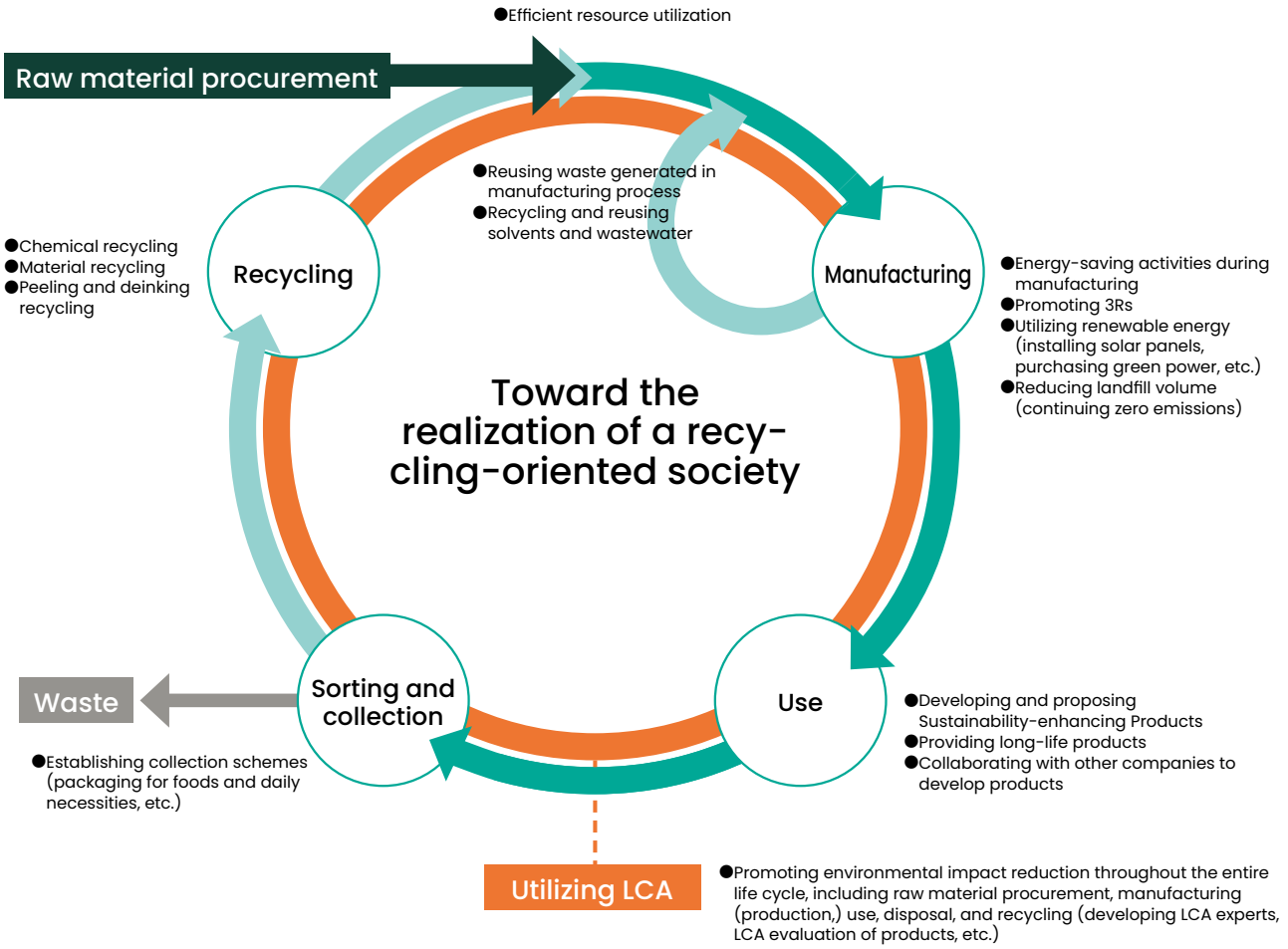
[Achievements]

| KPIs and measures | FY2025 |
|---|---|
| ① Carry out initiatives for plastic resource circulation and plastic waste reduction | · Establishment of a horizontal recycling scheme for product sample sheets for vending machines<br>· Activities to reduce waste at production sites and offices (e.g. recycling of workwear at factories, etc.) |

WEB **Examples of development, commercialization, and services**

- June 2, 2025 news release: Toyochem develops UV-curable hot-melt adhesive with heat resistance over 100 °C
- November 7, 2025 news release: Toyo Ink, Kyodo Production HD and Toyobo established a "horizontal recycling" scheme for product sample sheets for vending machines
- November 10, 2025 news release: Started horizontal recycling demonstration test of conductive sheet

**■Initiatives for product's life cycle and resource recycling**



# Resource Circulation

## Initiatives

### [Peeling and deinking recycling technologies and practical applications]

Reducing the thickness of packaging films and converting laminated films to mono-material films are considered important in achieving this, and we have developed and are proposing functional coating agents that complement the gas barrier and heat-resistance functions of traditional laminated films. We are working to improve the quality of recycled plastic materials, such as by developing deinking coatings that effectively remove printing ink and laminated films, as well as peelable laminating adhesives. We are also building recycling systems that incorporate deinking and peeling processes. This has enabled the collection of near-transparent recycled plastics by type, leading to a significant expansion in the applications of recycled plastic materials.

### [Initiatives at business sites and manufacturing facilities]

**Reduction of waste solvents by introducing a solvent recycling system**

In June 2023, Toyo-Morton, Ltd. introduced a cleaning solvent recycling system at its Saitama Plant, reducing the amount of waste solvent generated in cleaning processes at its production facilities by 70% (in comparison with FY2022.)

link Page 31: Waste Management

**Horizontal recycling of workwear**

The Moriyama Factory of Toyo Visual Solutions Co., Ltd. is working on resource circulation using a collection service for the horizontal recycling of unwanted workwear into new workwear.

**Introduction of recycled toilet paper made from office waste paper**

At Toyo Ink Co., Ltd.'s Saitama Factory and Jujo Center, we have introduced 100% recycled paper toilet paper made from office waste paper. At Saitama Factory, we also recycle unneeded paper as a raw material for toilet paper, contributing to the reduction of waste and the establishment of a resource circulation system.

**Collection and recycling of used clear folders**

The artience Group (Saitama Factory of Toyo Ink Co., Ltd., Kyobashi Head Office, and Jujo Center) joined the ASKUL Resource Circulation Platform* in FY2022 for the purpose of cutting plastic waste and making circular use of plastic resources. Since then, we have been conducting activities of collecting and recycling used clear folders.

* ASKUL resource circulation platform (Japanese)
https://www.askul.co.jp/kaisya/shigen/

### [Participating in initiatives]

**Participating in the Saitama Prefectural Platform for Fostering Sustainable Use of Plastic Resources***

The Saitama Factory of Toyo Ink Co., Ltd. joined the Saitama Prefectural Platform for Fostering Sustainable Use of Plastic Resources in May 2023 in support of its activities for cutting plastic waste emissions and for encouraging circular use of plastic resources. This platform will organize lectures, workshops and exchange meetings on the circular use of plastic resources. A working group established by volunteer members will explore construction of a model for sustainable use of plastic waste.

* Established by the Saitama prefectural Government, the platform consists of business operators, municipal governments, consumer groups and other parties addressing circular use and the reduction of plastic resources for the purpose of controlling plastic waste emissions and fostering the circular use of plastic resources.

**Solving the marine plastic litter issue participation in the Japan Clean Ocean Material Alliance**

The Japan Clean Ocean Material Alliance was established in January 2019 under the leadership of the Ministry of Economy, Trade and Industry. The alliance is a public-private partnership for accelerating innovations to solve the marine plastic litter issue. artience Co., Ltd., representing our Group, participates in the alliance, identifying the latest technological trends, sharing information, and cooperating with other companies.

**Participation in CEFLEX, which provides an international framework for solutions to the plastic waste issues**

The artience Group participates in CEFLEX (Circular Economy for Flexible Packaging,) established in 2017 as a consortium that works to create a circular economy in the field of flexible packaging in Europe. In its roadmap to creating a circular economy in the field of flexible packaging in Europe, CEFLEX aims to build an infrastructure by 2025 to collect, sort, and recycle used flexible packaging.

CEFLEX
A CIRCULAR ECONOMY FOR FLEXIBLE PACKAGING

**Recycling used plastics into new resources capital participation in R Plus Japan, Ltd.**

To contribute to solving plastic issues to create a sustainable society, we have taken a stake in R Plus Japan, Ltd., a joint venture that started business in June 2020 and has been engaging in recycling used plastics.

# Waste Management

## Basic approach

The artience Group is a manufacturing company. We cannot avoid generating waste in our production activities. We take steps to minimize the amount of waste treated offsite through initiatives such as the development of production processes which are unlikely to generate waste, considering methods for treating waste, promoting the reuse and recycling of resources, and globally sharing knowledge about how to reduce waste. Additionally, while waste oil, waste plastics, and wastewater account for approximately 80% of external waste emissions in Japan*, we strive to minimize landfill volumes by effectively utilizing contaminated waste plastics, which are difficult to recycle, through methods such as thermal recovery.

* Amount of waste treated off-site: The amount of waste sold as valuables and the amount of waste that was generated at our business locations and discharged from the premises without being recycled or transferred outside our business locations to outsource its disposal to waste disposers.

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme: 2-3. Waste / Resource Circulation**

Reduce waste from production sites and offices and encourage resource circulation in the value chain

①Achieved zero emissions (final waste disposal rate of 1% or less for total production sites) by promoting 3Rs (reduce-reuse-recycle) throughout production activities

### [Achievements ]

**①Achieved zero emissions by promoting 3Rs throughout production activities**

We define the final disposal volume as the volume of waste prior to volume reduction, such as the incineration of waste for final disposal. We define zero emissions as the state in which the ratio of the final disposal volume to waste emissions, or the final disposal ratio, is 1% or less.

In FY2025, for the artience Group's operations in Japan as a whole, the final disposal ratio to the total volume of waste emissions was 0.1%, and zero emissions was achieved at all business locations. We will work to maintain zero emissions overseas going forward.

**■Trends in final disposal rate of waste (non-recycling rate)**

(Unit: %)

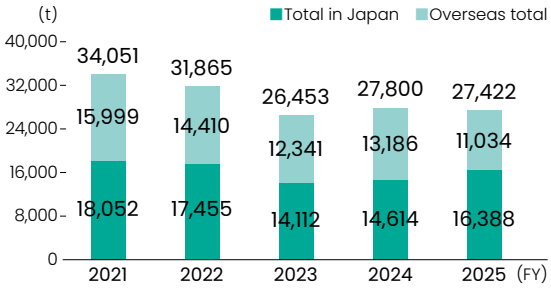
| | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|
| Japan | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 |
| Group (Japan & overseas) | - | - | - | 1.6 | 2.6 |

### [Volume of waste emissions]

In FY2025, the amount of waste generated was 16,388 t in Japan (up 12.1% YoY) and 11,034t overseas (down 16.3% YoY.)

The artience Group counts the volume of industrial waste, which is treated by contracted operators in Japan, valuables, and waste prior to intermediate treatment for internal reuse and other purposes as the volume of waste emissions in accordance with the Manual for Formulation of Industrial Waste Treatment Plans by Business with High-Level Emissions published by the Ministry of the Environment.

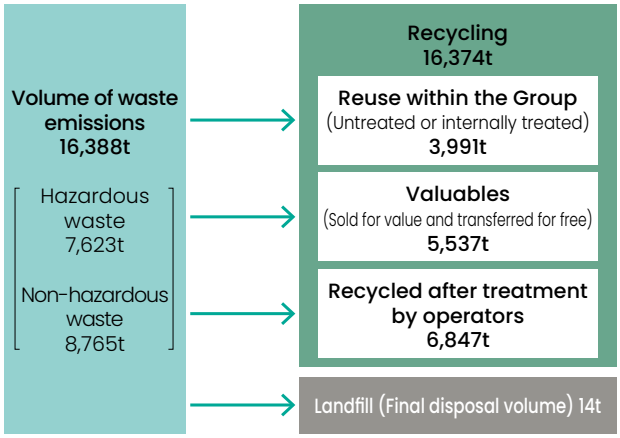
**■Changes in volume of waste emissions**




Scope of calculation: Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

link Page 45: Environmental Data > Waste Management

**■Overview of waste in Japan (FY2025)**




Scope of calculation: Major factories and plants in Japan and affiliates in Japan; For details about the organizations in the scope, see page 38.

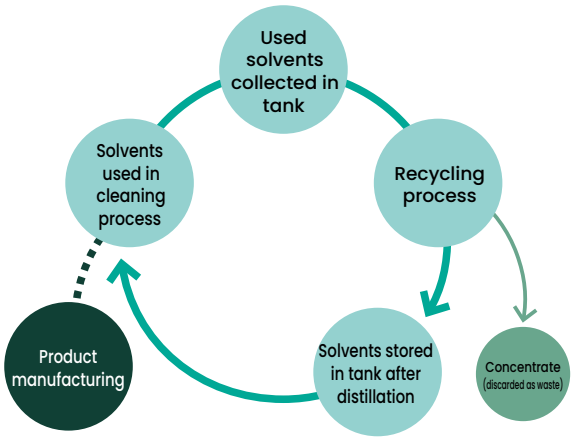
# Waste Management

## Initiatives

### [Reduction of waste solvents by introducing a solvent recycling system]

In June 2023, Toyo-Morton, Ltd. introduced a cleaning solvent recycling system at its Saitama Plant, reducing the amount of waste solvent generated in cleaning processes at its production facilities by 70% (in comparison with FY2022.) At the Toyo-Morton Saitama Plant, it was necessary to clean production equipment with solvents when switching between products, and the environmental impact of solvent waste after cleaning was an issue. This cleaning solvent recycling system reduces waste by distilling and concentrating the used solvent, making it possible to reuse the solvent for cleaning after distillation.

**■Solvent recycling system**




### [Making sludge valuable by introducing sludge volume reduction equipment]

Toyo FPP Co., Ltd. (Kawaguchi) is engaged in a business focused on the manufacture of cylinder plates and flexographic plates, and wastewater treatment is essential to the plate-making process. Sludge is generated in the wastewater treatment process at the site, but until now it had been necessary to treat it as industrial waste, and reducing costs was an issue.

We considered reducing the volume of sludge generated by approximately 45t per year. The introduction of a thermal storage drying system made it possible to reduce the total amount of industrial waste generated by Toyo FPP Co., Ltd. by approximately 20%. In addition to reducing transportation costs, it is also possible to recycle the metal components contained in the sludge as valuable materials by finding an appropriate material recycling destination. As a result, the amount of industrial sludge generated in the wastewater treatment process is now virtually zero.

### [Education on the proper management of waste]

The artience Group gives training on proper management of waste as part of the compliance training. We share information about waste treatment via our in-house system and clarified the criteria for selecting new industrial waste disposers to which we outsource the treatment in our efforts to reinforce our management system to avoid being involved in improper treatment.

We also hold regular waste management briefings for operators at each domestic site to ensure awareness of waste management procedures and internal rules.

# Pollution Prevention

## Basic approach

The artience Group's business activities depend on the earth's resources. The Group considers addressing environmental issues, such as air pollution and soil contamination, to be important issues. To create a sustainable, circular society, we will take steps to reduce environmental impacts in manufacturing and strive to reduce emissions of pollutants.

## Promotion system

The ESG Promotion Office of artience Co., Ltd. takes the lead in reducing the environmental impact on the atmosphere and addressing soil and groundwater contamination, primarily at production bases but also at business sites in Japan and overseas, including those of affiliates.

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme: 2-4. Pollution Prevention / Chemical Substances**

Prevent air, water and soil pollution and aim for production activities with zero-environmental pollution

① Number of violations of laws and regulations related to pollution prevention: Zero cases continued

### [Achievements]

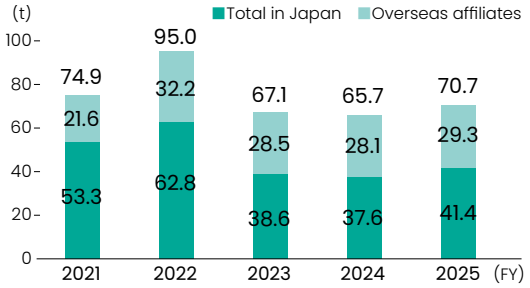
**① Number of violations of laws and regulations concerning the prevention of pollution**

The Group complies with environmental laws and regulations, conducts business activities based on its basic policies and rules regarding the environment, and works to reduce its environmental impact. There were no violations of pollution prevention-related laws and regulations in FY2025.

### [Pollution prevention]

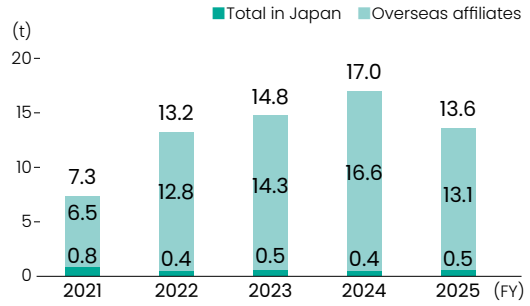
In Japan, the artience Group has been working on fuel conversion, introduction of cogeneration systems, appropriate management of fuel combustion conditions, and other measures to reduce air pollutants generated from boilers and other combustion equipment, such as nitrogen oxide (NOx,) sulfur oxide (SOx,) and particulates. Emissions of SOx and particulates in Japan have been leveling off in recent years. Overseas affiliates saw a decrease in SOx and particulates, but an increase in NOx compared to the previous year. Going forward, we will continue working to reduce emissions.

**■Changes in NOx emissions**



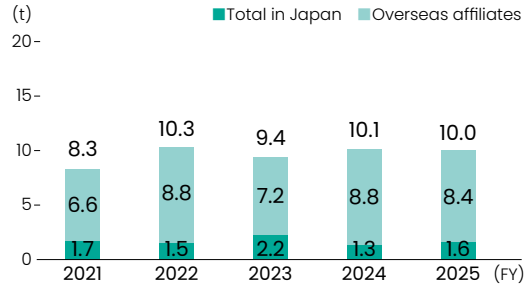

Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

**■Changes in SOx emissions**



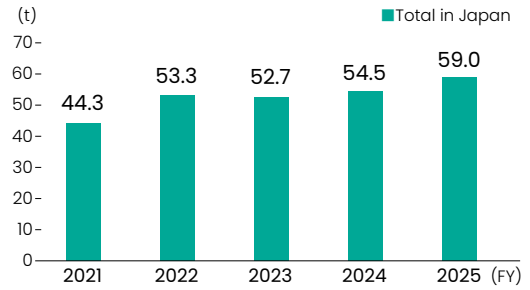

Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

**■Changes in particulate emissions**




Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

**■Changes in VOC emissions**




Scope of calculation: Major factories and plants in Japan and affiliates in Japan; For details about the organizations in the scope, see page 38.

# Pollution Prevention

## Initiatives

### [Countermeasures against soil and groundwater contamination]

The Advanced Materials Research Laboratory of former Toyo Ink SC Holdings Co. Ltd. (in Tsukuba-shi, Ibaraki Prefecture) was designated as standing in an Area for which Changes in Form or Nature Require Notification on September 12, 2022 as a result of the investigation pursuant to the Soil Contamination Countermeasures Act. In response, it excavated and removed contaminated soil. On December 22, 2022, the designation was lifted.

Toyo Ink (Thailand) Co., Ltd. falls under industries specified in a ministerial ordinance regarding soil and groundwater pollution within factory grounds, which was issued by Thailand's Ministry of Industry in October 2016. This required the company to implement regular monitoring of soil and groundwater on its premises. The company consistently analyzes the groundwater and soil and reports the result.

In China, the Law on Prevention and Control of Soil Pollution, which is a national law that sets forth regulations concerning prevention of soil pollution, came into effect in January 2019. In the artience Group, two Group companies —Tianjin Toyo Ink Co., Ltd. and Shanghai Toyo Ink Mfg. Co., Ltd. —were designated as "enterprises subject to intensive supervision and management related to soil contamination." In response, the companies are advancing initiatives including identification and control of soil contamination risks.



Excavation and removal of contaminated soil (former Advanced Materials Research Laboratory of Toyo Ink SC Holdings Co., Ltd.)

### [Management of hazardous substances]

The artience Group holds polychlorinated biphenyl (PCB) waste from transformers, capacitors, fluorescent ballasts, and other devices for a long time at 12 business establishments in Japan, and notifies the government every year in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes. We have carried out appropriate treatment of PCB waste, and completed the treatment at 11 business locations. For the high concentration PCB waste (fluorescent ballasts) stored at the remaining 1 business location, we have drawn up a plan and taken a series of steps accordingly. Its treatment was finished in March 2024.

Regarding PCB waste in storage, we locked the depository, performed regular inspections and otherwise implemented stringent management. There was no loss, wrong disposal, leakage, or similar incident.

### [Compliance with the Law for Controlling Fluorocarbon Emissions]

Pursuant to the Act for Rationalized Use and Proper Management of Fluorocarbons, the artience Group has selected managers and identified applicable equipment for each company. We conduct simplified inspections of the equipment and have them examined by vendors periodically in accordance with the law.

Fluorocarbons that leaked from the artience Group sites in Japan amounted to 58.8 kg in FY2025 (down approx. 21.1% YoY,) and there was no business establishment of the artience Group where the calculated leakage of fluorocarbons exceeded 1,000 t-$CO_2$, the amount that must be reported.

**■Breakdown of Fluorocarbon Leakage (Japan)**

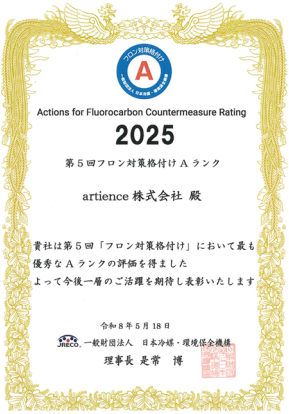
| Fluorocarbon | Leakage Amount (kg) |
|---|---|
| R-410A | 29.8 |
| R-404A | 20.9 |
| R-22 | 5.0 |
| R-407C | 3.1 |

## TOPICS

### Received an A rank rating in the JRECO Fluorocarbon Countermeasures Rating for the third consecutive year

The artience Group has received an A rank rating for the third consecutive year in the 5th JRECO Fluorocarbon Countermeasures Rating, which evaluates efforts under the Fluorocarbon Emission Control Act conducted by the Japan Refrigerants and Environment Conservation Organization (JRECO,) a general incorporated foundation that promotes and advances the proper management of fluorocarbons together with the Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE.)

The Group has continuously implemented measures based on the Fluorocarbon Emission Control Act enacted in 2015. This includes establishing management systems at each site, monitoring the use of fluorocarbons in equipment, calculating the amount of fluorocarbons leaked, conducting simple and periodic inspections, and disclosing information via our website and reports. This third consecutive year of receiving the A rank is a comprehensive recognition of these efforts.



# Chemical Substance Management

## Basic approach

In its Basic Policy on Environment (revised January 2024) and Basic Policy on the Management of Chemical Substances (revised May 2024,) the artience Group aims to minimize environmental impact across product lifecycles —from raw material procurement to recycling —while protecting the environment and ensuring human health and safety.

To comply with these policies, we appropriately control chemical substances at every stage, including design, procurement, production, storage, transport, and disposal, while striving to replace or reduce highly hazardous substances.

WEB The Basic Policy on Environment and the Basic Policy on the Management of Chemical Substances are posted on our website under [Sustainability > Related Policies and Guidelines.]

## Promotion system

The Production Planning Office and the ESG Promotion Office of artience Co., Ltd. supervises and manages the environment, chemical substance management, and trade management for the entire Group. It also undertakes initiatives in compliance with laws and regulations and practices in each individual country.

## Risk Management

### [Response to chemical substance management regulations]

The artience Group developed the Chemical Substance Management Rules to ensure appropriate management of chemical substances in raw materials and products. We consistently reduce chemical risks based on the New Material Screening Regulations for newly adopted materials and the Chemical Substance Risk Management Regulations.

The Chemical Substance Risk Management Regulations ban or restrict substances with significant impacts on humans and the environment as "artience Group (arg) Prohibited Chemical Substances," which we strictly monitor in our products. We also assess worker exposure risks and hazards to designate and reduce "arg Restricted Chemical Substances." Control standards have been harmonized from design to completion across the Group.

### [Risk assessment of chemical substances]

The artience Group conducts chemical risk assessments at all Japanese manufacturing and R&D locations in accordance with the Occupational Safety and Health Act.

We manage these assessments through a streamlined system supported by designated chemical substance managers alongside health and safety managers.

From 2021, as the Industrial Safety and Health Act expands the list of substances requiring labeling and notification, we are systematically conducting risk assessments for these additional substances and implementing necessary safety measures.

## Metrics and targets

**■Relevant themes in Group Materiality 2025-2030**
**Theme: 2-4. Pollution Prevention / Chemical Substances**

Prevent air, water and soil pollution and aim for production activities with zero-environmental pollution

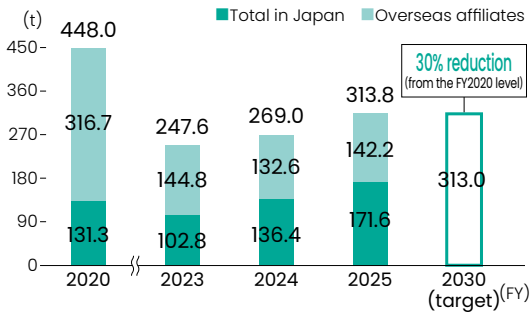
①Harmful chemical substance emissions (Global): 30% reduction (from the FY2020 level)

### [Achievements]

**① Harmful chemical substance emissions (Global)**

We calculated FY2025 global emissions for Class I substances under the PRTR Act and substances designated by the Japan Chemical Industry Association. Emissions totaled 171.6 t from Japanese affiliates (up 25.8% YoY) and 142.2 t from overseas affiliates (up 7.2% YoY.)

**■Changes in chemical substance emissions**




Scope of calculation: Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; For details about the organizations in the scope, see page 38.

* Past figures have been recalculated retrospectively due to the revision of the operation method of the aggregation system and a review of substances covered by PRTR in FY2023.

link Page 46: Environmental Data > Chemical Substance Management

## Initiatives

### [Personnel development through in-house training courses]

The artience Group provides in-house seminars and educational videos for legal compliance and customer information. These sessions cover legal updates and workplace safety measures. In FY2025, approx. 2,900 employees completed these courses.

# Biodiversity

## Basic approach

The business activities of the artience Group depend on and are sustained by many natural capital resources, including various raw materials of natural origin and water resources. Recognizing the importance of biodiversity at an early stage, we established our Policy on Biodiversity (established in May 2009, revised in January 2024,) and have engaged in nature conservation activities, including biodiversity conservation, as well as tree-planting initiatives in local communities and cleanup activities for rivers and lakes.

To understand and mitigate the impact our business activities have on biodiversity, we are working to conserve biodiversity through the sustainable use of resources, reduction of chemical emissions, and the provision of sustainability-enhancing products.

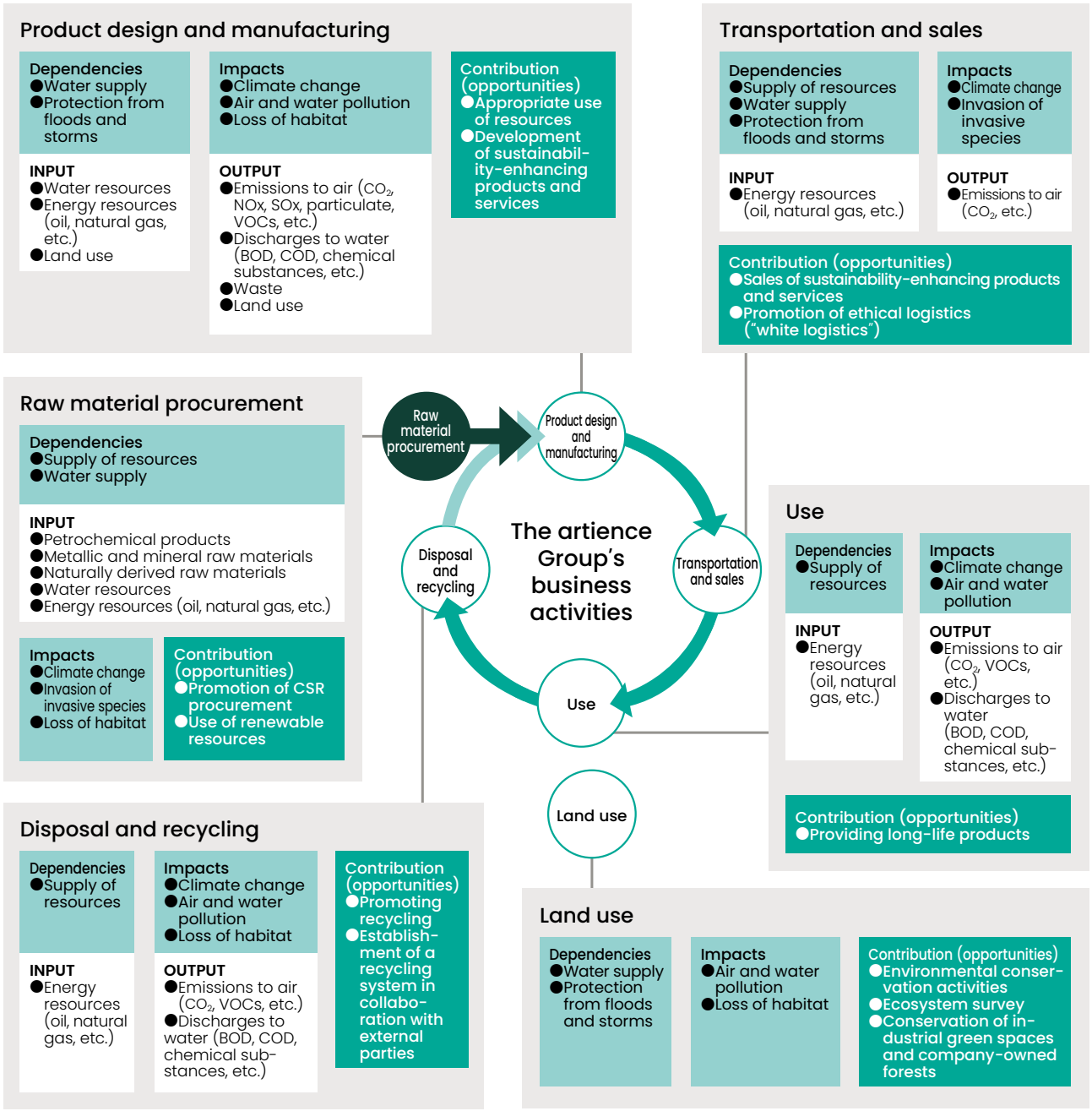
WEB The Policy on Biodiversity is posted on our website under [Sustainability > Related Policies and Guidelines.]

## Promotion system

We are engaged in various initiatives within the environmental management system.

link Page 16: Environmental Management

### Map of relationships between business activities and biodiversity




* Created based on the Business and Biodiversity Interrelationship Map® from the Japan Business Initiative for Biodiversity (JBIB)

# Biodiversity

## LEAP approach based on the TNFD framework

In our biodiversity conservation activities, we have implemented the LEAP approach outlined in the TNFD framework to understand the Group's dependence on natural capital, its impact, and its risks and opportunities, and to formulate strategies. This time we evaluated the scope of direct operations, covering all of the Group's businesses.

### [Understanding our dependence and impact on nature]

With the use of the biodiversity management and evaluation tool, called Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE,) we evaluated the artience Group's dependency and impacts on nature in the industrial subgroups of general chemistry and special chemicals. The evaluation has revealed that, while its dependency on natural assets is low overall, its use of water, its use of land eco-systems, its GHG emissions, non-GHG air pollutants, water contaminants, soil pollutants and solid waste have significant impacts on nature.

**■Results of evaluation with ENCORE (Factors impacting nature and levels of impacts)**

| Factors impacting nature | Sector: Materials Industrial Subgroup: General Chemistry | Sector: Materials Industrial Subgroup: Special Chemicals |
|---|---|---|
| Use of water | Very high | High |
| Use of land eco-systems | High | High |
| GHG emissions | N/A | High |
| Non-GHG air pollutants | Medium | High |
| Water contaminants | High | High |
| Soil pollutants | High | High |
| Solid waste | N/A | High |

### [Risks and Opportunities]

The artience Group has identified points of contact with (input from and output into) nature in the business process from procurement of raw materials to disposal and recycling and the effects of the contact on biodiversity, including habitat deterioration, raw materials from forests and mountains near human habitats, invasion of native habitats by non-native species, exposure to chemical substances, and global warming and climate change, and has thereby identified clear risks to biodiversity.

Our analysis of the relationship between our business activities and biodiversity (risks and opportunities) indicates that risks such as land use, emissions to air, discharges to water, and waste output have various impacts on biodiversity.

In terms of opportunities, the goals of increasing products reducing $CO_2$ emissions from a life cycle perspective by 2030 and helping decarbonize the whole value chain by 2050 were set in asv2050/2030. In addition to reducing the environmental impact of manufacturing, we are expanding the range of products that aid a sustainable society.

Additionally, since natural environments vary greatly between locations and cannot be measured by a single indicator, TNFD recommends information disclosure with an emphasis on regional characteristics. The Group assessed 43 business sites in Japan and overseas, and identified priority regions. Going forward, we will engage in risk management tailored to each region.

**■Biodiversity risk assessment items for business sites**

| Assessment items | Assessment tools | Indicators |
|---|---|---|
| Importance of biodiversity | WWF Biodiversity Risk Filter | Scape Physical Risk |
| Water stress | Aqueduct Water Risk Atlas 4.0 | Baseline water stress |
| Significant potential dependencies and impacts | ENCORE Hotspots Terrestrial | Combined hotspots of natural capital depletion |

**■Number of business sites rated as high or extremely high risk by region**

| | Importance of biodiversity | | Water stress | | Significant potential dependencies and impacts | |
|---|---|---|---|---|---|---|
| | High | Extremely high | High | Extremely high | High | Extremely high |
| Japan | 0 | 0 | 0 | 0 | 0 | 0 |
| Asia (excluding Japan) | 5 | 0 | 4 | 5 | 3 | 0 |
| Europe | 0 | 0 | 1 | 2 | 0 | 0 |
| Americas | 0 | 0 | 2 | 0 | 0 | 0 |

### [Strategy]

With regard to water environments in particular, one site in China and two sites in Thailand, India, and Europe have been assessed as being at extremely high risk. Therefore, we regard water risks as the significant risks, and will work to address water risks at these sites.

As we work toward achieving the asv2050/2030 goals of an 80% sales ratio for sustainability-enhancing products by 2030 and expanding products that contribute to reducing $CO_2$ emissions from a lifecycle perspective, we will continue to provide products and services that contribute to solving global environmental issues.

link Page 26: Water Resource Management

### [Metrics and targets]

Based on the concept behind the core indicators in the Guidelines for Planning and Monitoring Corporate Biodiversity Performance by the International Union for Conservation of Nature (IUCN) and on the Relations between Business Activities and Biodiversity (Risks and Opportunities,) we have tracked and managed progress in targets and KPIs for our past activities for cutting environmental impacts and others as biodiversity management indicators.

# Biodiversity

## ■Biodiversity indicators

| Biodiversity indicator | FY2023 | FY2024 | FY2025 | Reference pages |
|---|---|---|---|---|
| ① Water consumption (thousand $m^3$) | 4,244 | 3,964 | 4,207 | 27、43 |
| ② Scope 1+2 (global) (t-$CO_2$) | 154,568 | 152,002 | 145,525 | 22、41 |
| ③ Specific energy consumption (overseas) (L/t) | 156.5 | 155.8 | 143.0 | 23、42 |
| ④ VOC emissions (Japan) (t) | 52.7 | 54.5 | 59.0 | 32、46 |
| ⑤ NOx emissions (t) | 67.1 | 65.7 | 70.7 | 32、46 |
| ⑥ SOx emissions (t) | 14.8 | 17.0 | 13.6 | 32、46 |
| ⑦ Particulate emissions (t) | 9.4 | 10.1 | 10.0 | 32、46 |
| ⑧ COD emissions (t) | 159.0 | 159.6 | 133.7 | 27、44 |

Scope of collection of data: For (1), (2), (5), (6), (7) and (8), it is the whole artience Group, and it is all overseas business bases for (3) and all business bases in Japan for (4).

## Participation in biodiversity organizations

The artience Group has endorsed the purposes of the Keidanren (Japan Business Federation) Declaration for Biodiversity and Guideline (revised in December 2023,) and has participated in the Keidanren Initiative for Biodiversity Conservation. Additionally, our Group is also a participant in the CLean Ocean Material Alliance (CLOMA,) which was established in January 2019 to address the marine plastic litter problem.

When the 30by30 Roadmap was formulated in April 2022, companies, municipalities, and other organizations voluntarily formed the 30by30 Alliance for Biodiversity. The Group declared its support for the Alliance in June 2022.

The logo of the 30by30 Alliance for Biodiversity

### [Demonstrative test of simple monitoring]

In cooperation with the Natural Harmony Site initiative being advanced under Japan's 30by30 Roadmap, on August 8 and 9, 2023, we conducted a two-day demonstrative test of simplified monitoring focused on common insect species in the company-owned forest of Toyochem Co., Ltd.'s Kawagoe Factory. The survey, conducted by an external research organization, accompanied by officials from the Ministry of the Environment, confirmed the presence of numerous insects. These included beetles such as the earth-boring dung beetle (*Phelotrupes laevistriatus,*) the giant flat-backed carrion beetle (*Necrophila japonica,*) and the darkling beetle (*Plesiophthalmus nigrocyaneus,*) as well as cicadas like the robust/large-brown cicada (*Hyalessa maculaticollis*) and the kempfer cicada (*Platypleura kaempferi,*) the oriental long-headed grasshopper (*Acrida cinerea,*) and the Japanese oakblue butterfly (*Narathura japonica,*) all of which are included in the list of insects found in favorable environments in urban green spaces, as selected by the Ministry of the Environment.

## Initiatives

### [Ecosystem research and the preservation of valuable species in a company-owned forest]

There is a strip of woodland running from the northeast to the southwest near the Kawagoe Factory, of Toyochem Co., Ltd. The woodland is a part of the Santome-shinden area, which was developed in the Genroku era of the Edo period (late 17th century.) The area has housing land, arable land, and a mixed forest. On the southwestern part of the site of the Kawagoe Factory, there is woodland (company-owned forest.) These woodlands are connected to woodlands around them and may play an important role in terms of biodiversity conservation in the area. To learn about wildlife in the company-owned forest, we conducted two surveys primarily of plants and birds in December 2016 and June 2017. In the surveys, we have found 169 species of 68 families of plants, 24 species of 16 families of birds, and 3 species of 3 families of animals. Those species include the Riverstream orchid, a threatened species to be protected listed in Saitama Prefecture Red Data Book 2011 (plants,) and the Japanese green woodpecker and the bunting, threatened species listed in Saitama Prefecture Red Data Book 2018 (animals.) Based on the finding, the Kawagoe Factory strives to protect the Riverstream orchid and conserve the ecosystem in the company-owned forest.

### [Environmental beautification activities on Lake Biwa Day]

In Shiga Prefecture, July 1st is designed as "Lake Biwa Day" under the Shiga Prefecture Basic Environmental Ordinance. It is a symbolic day when environmental protection activities, including cleanups of lakeside and riverside areas and roads across the prefecture, take place with a shared attachment to the lake. The Moriyama Factory of Toyo Visual Solutions Co., Ltd., which is located near Lake Biwa, has consistently taken part in environmental cleanup activities on Lake Biwa Day.

### [Awarded Kinki Bureau of Economy, Trade and Industry Director's Commendation Award at the National Award for Greenery Factory]

Toyo Visual Solutions Co., Ltd.'s Moriyama Factory has received the Kinki Bureau of Economy, Trade and Industry Director's Commendation Award for FY2024, as part of the National Award for Greenery Factory*. This follows on from its receipt of the Japan Greenery Research and Development Center Chairman's Commendation Award in FY2022.

* The National Awards for Greenery Factory are presented annually by the Japan Greenery Research and Development Center to factories and other facilities that have made outstanding contributions to factory greening, with the aim of encouraging and raising awareness of such initiatives.

### [Participation in canal cleanups and water quality improvement project activities]

Toyo Ink (Thailand) Co., Ltd. participates regularly in canal cleanups and water quality improvement project activities to prepare for canal flooding and protect the environment in the Bangchan Industrial Estate and the surrounding area.

# Environmental Data

## Scope of collection of environmental data

The organizations specified below are subject to collection of different data.

| | | |
|---|---|---|
| Japan | Major factories and plants | ① Toyocolor Co., Ltd. Fuji Factory ② Toyocolor Co., Ltd. Okayama Plant<br>③ Toyochem Co., Ltd. Kawagoe Factory ④ Toyochem Co., Ltd. Kobe Plant<br>⑤ Toyochem Co., Ltd. Amagasaki Plant ⑥ Toyochem Co., Ltd. Chiba Plant<br>⑦ Toyochem Co., Ltd. Chitose Plant ⑧ Toyo Ink Co., Ltd. Saitama Factory<br>⑨ Toyo Visual Solutions Co., Ltd. Moriyama Factory<br>* In FY2024 to FY2025, there were four factories and five plants mentioned above.<br>* In FY2023, there were four factories and six plants (Mobara Plant was closed down on July 1, 2023 as a result of production integration, so after the shutdown, there are four factories and five plants.)<br>* The data for FY2021 to FY2022 cover the four factories and the six plants (six plants: Okayama Plant, formerly Seishin Plant, Amagasaki Plant, Mobara Plant, Chitose Plant and Chiba Plant.)<br>* As of April 1, 2024, the name of Seishin Plant has been changed to Kobe Plant. |
| | Affiliates in Japan | ① Toyo-Morton, Ltd. Saitama Plant ② Matsui Chemical, Co., Ltd. ③ Toyo FPP Co., Ltd.<br>* The data for FY2021 to FY2025 cover the three companies mentioned above. They were major production affiliates in Japan. |
| Overseas | Overseas affiliates*1 | Seventeen ISO 14001 certified companies (① TIPPS Pte. Ltd. ② Toyochem Specialty Chemical Sdn. Bhd.<br>③ Toyo Ink (Thailand) Co., Ltd. ④ Toyo Ink (Philippines) Co., Inc. ⑤ PT. Toyo Ink Indonesia. ⑥ Toyo Ink Vietnam Co., Ltd.<br>⑦ Toyo Ink Compounds Vietnam Co., Ltd. ⑧ Tianjin Toyo Ink Co., Ltd. ⑨ Shanghai Toyo Ink Mfg. Co., Ltd.<br>⑩ Jiangmen Toyo Ink Co., Ltd. ⑪ Zhuhai Toyocolor Co., Ltd. ⑫ Toyo Advanced Science Taiwan Co., Ltd.<br>⑬ Sam Young Ink & Paint Mfg. Co., Ltd. ⑭ Toyo Ink Europe Speciality Chemicals S.A.S ⑮ Toyo Printing Inks Inc.<br>⑯ Toyo Ink Hungary Kft. ⑰ Liochem, Inc.) and seven other companies (① Toyo Ink India Pvt. Ltd. ② Toyo Ink America, LLC<br>③ Hanil Toyo Co., Ltd. ④ Chengdu Toyo Ink Co., Ltd. ⑤ Sichan Toyo Ink Mfg. Co., Ltd. ⑥ Toyo Ink Europe N.V.<br>⑦ Toyo Ink Brasil Ltda.) |

### ■Scope of collection of data on $CO_2$ emissions per unit of sales

| | | |
|---|---|---|
| Japan | All business bases in Japan | artience Co., Ltd., Toyocolor Co., Ltd., Toyochem Co., Ltd., Toyo Ink Co., Ltd., Toyo Visual Solutions Co., Ltd., Toyo-Morton, Ltd., Matsui Chemical Co., Ltd., Toyo FPP Co., Ltd., Toyo B-net Co., Ltd., Toyo Ink Engineering Co., Ltd., Toyo Management Service Co. Ltd., Clover Biz Co., Ltd., Logi Co-Net Corp. |
| Overseas | Overseas affiliates | Seventeen ISO 14001 certified companies and seven other companies (see *1) |

## Environmental Management

The ISO 14001 certification rate is 92% for sites in Japan, 71% for overseas sites, and 78% on a global (consolidated) basis.

The ISO 14001-certified overseas sites (17 companies) are responsible for 73.7% of our overseas production quantity.

### ■Acquisition status of ISO certification (As of December 31, 2025)

| Japan |
|---|
| ① Toyocolor Co., Ltd. Fuji Factory |
| ② Toyocolor Co., Ltd. Okayama Plant |
| ③ Toyochem Co., Ltd. Kawagoe Factory |
| ④ Toyochem Co., Ltd. Kobe Plant |
| ⑤ Toyochem Co., Ltd. Amagasaki Plant |
| ⑥ Toyochem Co., Ltd. Chiba Plant |
| ⑦ Toyo Ink Co., Ltd. Saitama Factory |
| ⑧ Toyo Visual Solutions Co., Ltd. Moriyama Factory |
| ⑨ Toyo-Morton, Ltd. Saitama Plant |
| ⑩ Matsui Chemical, Co., Ltd. |
| ⑪ Toyo FPP Co., Ltd. |

| Overseas |
|---|
| ① TIPPS Pte. Ltd. 〈Singapore〉 |
| ② Toyochem Specialty Chemical Sdn. Bhd. 〈Malaysia〉 |
| ③ Toyo Ink (Thailand) Co., Ltd. 〈Thailand〉 |
| ④ Toyo Ink (Philippines) Co., Inc. 〈Philippines〉 |
| ⑤ PT. Toyo Ink Indonesia. 〈Indonesia〉 |
| ⑥ Toyo Ink Vietnam Co., Ltd. 〈Vietnam〉 |
| ⑦ Toyo Ink Compounds Vietnam Co., Ltd. 〈Vietnam〉 |
| ⑧ Tianjin Toyo Ink Co., Ltd. 〈China〉 |
| ⑨ Shanghai Toyo Ink Mfg. Co., Ltd. 〈China〉 |
| ⑩ Jiangmen Toyo Ink Co., Ltd. 〈China〉 |
| ⑪ Zhuhai Toyocolor Co., Ltd. 〈China〉 |
| ⑫ Toyo Advanced Science Taiwan Co., Ltd. 〈Taiwan〉 |
| ⑬ Sam Young Ink & Paint Mfg. Co., Ltd. 〈South Korea〉 |
| ⑭ Toyo Ink Europe Speciality Chemicals S.A.S 〈France〉 |
| ⑮ Toyo Ink Hungary Kft. 〈Hungary〉 |
| ⑯ Toyo Printing Inks Inc. 〈Turkey〉 |
| ⑰ Liochem, Inc. 〈USA〉 |

# Environmental Data

## Material balance

By grasping the overall picture of material balance and clarifying the effectiveness of our environmental conservation activities, we will further reduce the environmental impact.

### ■Material balance

| | | | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|
| INPUT | Raw materials | Solvents, resins, pigments, etc. (t) | 129,100 | 128,968 | 125,022 |
| | | Chemical substances*1 amount handled (t) | 54,101 | 52,224 | 49,034 |
| | Supplementary materials | Drums, five-gallon drums, etc. (t) | 9,092 | 9,508 | 9,186 |
| | Energy | Electricity (thousand kWh) | 43,120 | 42,570 | 40,818 |
| | | Heavy fuel oil A (kL) | 306.3 | 289.9 | 296.8 |
| | | LPG (t) | 29.5 | 23.3 | 20.4 |
| | | Municipal gas (thousand $m^3$) | 18,179 | 17,848 | 16,383 |
| | Water | Water supplied (thousand $m^3$) | 140 | 121 | 149 |
| | | Industrial-use water (thousand $m^3$) | 0 | 6 | 6 |
| | | Groundwater (thousand $m^3$) | 2,320 | 2,470 | 2,586 |
| | | Total (thousand $m^3$) | 2,460 | 2,597 | 2,741 |
| OUTPUT | Volume of products (t) | | 158,626 | 159,886 | 154,634 |
| | $CO_2$ (t-$CO_2$) | | 53,241 | 54,331 | 51,986 |
| | Chemical substances (t) | | 100.7 | 128.9 | 164.1 |
| | Wastewater (thousand $m^3$) | | 2,018 | 2,298 | 2,272 |
| | Environmental pollutant | SOx (t) | 0.5 | 0.4 | 0.4 |
| | | NOx (t) | 38.4 | 37.6 | 41.4 |
| | | Particulates (t) | 2.2 | 1.3 | 1.6 |
| | | COD (t) | 54.3 | 72.2 | 67.3 |
| | Waste | Volume of emissions (t) | 11,918 | 12,345 | 13,596 |
| | | Final disposal volume (t) | 0.0 | 3.6 | 2.5 |

【Scope of calculation】Major factories and plants in Japan
* Due to the revision of the calculation method, the figures for raw materials (solvents, resins, pigments, etc.) and supplementary materials for FY2023 and FY2024 have been modified.
* The major factories and plants are responsible for approx. 91% of energy consumption of all our production bases in Japan.
*1 The chemicals described here refer to Class I designated chemical substances listed under the PRTR Act and substances designated by the Japan Chemical Industry Association

# Environmental Data

## Environmental accounting

The artience Group began to calculate its environmental costs based on guidelines from the Environmental Agency (Ministry of the Environment) in FY1999, which it positions as the first year of environmental accounting. Since then, we have been evaluating our environmental activities by continuing to check required costs for these activities and their effects.

### Environmental cost

(Unit: million JPY)

| Category | | Main measures implemented | FY2024 | | FY2025 | |
|---|---|---|---|---|---|---|
| | | | Investments | Costs | Investments | Costs |
| Business area costs | | | 275 | 1,261 | 128 | 1,196 |
| | Pollution prevention | Pollution prevention related investment and maintenance and management expenses | 172 | 579 | 65 | 596 |
| | Global environment protection | Global environment protection related investment and maintenance and management expenses | 91 | 258 | 57 | 192 |
| | Resource recycling | Waste processing and recycling related investment and maintenance and management expenses | 12 | 424 | 6 | 408 |
| Upstream and downstream costs | | Product recycling and product container recycling expenses | 0 | 220 | 1 | 254 |
| Management activity costs | | Environmental management expenses, and environmental advertising, environmental education and other activity expenses | 0 | 411 | 8 | 419 |
| R&D costs | | | 596 | 3,574 | 347 | 3,612 |
| | Product development | Environmentally friendly product development related personnel costs, maintenance costs and investment in experimental equipment | 577 | 2,994 | 327 | 3,014 |
| | Technology development | Environmentally friendly technology development related personnel costs, maintenance costs and investment in experimental equipment | 19 | 580 | 20 | 598 |
| Social activity costs | | Support for global environment activities and donations to environmental organizations | 0 | 1 | 0 | 1 |
| Environmental damage response | | Soil pollution remediation | 0 | 8 | 0 | 8 |
| Total | | | 871 | 5,475 | 484 | 5,490 |

【Period covered by the data】January 1, 2025 – December 31, 2025
【Scope of calculation】Major factories and plants in Japan and affiliates in Japan
* The total amount of R&D expenditure during this period (consolidated) : 10,159 million JPY

### Direct quantitative effects of environmental preservation (within business area)

| Description | Index indicating the effect of environmental protection | | | |
|---|---|---|---|---|
| | Category | FY2024 | FY2025 | Effect* |
| Effects related to resources used in operations | Total energy used (crude-oil equivalent: thousand kL) | 30.6 | 29.2 | 1.8 |
| | Volume of water resources used (thousand $m^3$) | 2,625 | 2,776 | -117.5 |
| | Volume of PRTR- and JCIA-designated chemicals handled (thousand t) | 63.1 | 55.4 | 8.5 |
| Effects related to environmental burden and waste from business activity emissions | $CO_2$ emissions (thousand t-$CO_2$) | 58.7 | 56.7 | 2.7 |
| | Emissions of PRTR- and JCIA-designated substances (t) | 136.4 | 171.6 | -33.5 |
| | Volume of wastewater (thousand $m^3$) | 2,330 | 2,304 | 55.7 |
| | Volume of waste emissions (thousand t) | 14.6 | 16.4 | -1.6 |
| | Final disposal volume (t) | 18.6 | 13.8 | 5.0 |
| | SOx emissions (t) | 0.4 | 0.5 | -0.1 |
| | NOx emissions (t) | 37.6 | 41.4 | -3.3 |
| | Particulates emissions (t) | 1.3 | 1.6 | -0.3 |
| | COD emissions (t) | 72.2 | 67.3 | 5.8 |

【Scope of calculation】Major factories and plants in Japan and affiliates in Japan
* Direct quantitative effects of environmental protection activities are calculated by comparing data for the year with data for the previous fiscal year, with adjustments for production quantity.
* Effect = Environmental burden for previous fiscal period × (Production quantity for current fiscal period / Production quantity for previous fiscal period) – Environmental burden for current fiscal period.

### Economic effects

(Unit: million JPY)

| Category | Data aggregation definitions and scope, etc. for each item | FY2024 | FY2025 |
|---|---|---|---|
| 1 Sales of valuable resources | Revenue from sale of used containers, etc. | 18 | 39 |
| 2 Energy conservation | Monetary value of the effects from energy saving activities at individual business locations | 41 | 37 |
| 3 Resource conservation | Effects derived from the reduction in raw materials used due to higher recovery rates, etc. | 183 | 136 |
| 4 Recycling of containers, etc. | Effects derived from product container reuse and adoption of reusable tanks | 42 | 36 |
| 5 Reduction waste disposal costs | Reduced expenditure due to reduction in the amount of waste generated | 53 | 7 |
| Total | | 337 | 255 |
| Environmental business | Total earnings from products registered as "environmentally friendly products"*1 | 1,813*2 | 3,658*2 |

【Scope of calculation】Major factories and plants in Japan and affiliates in Japan
*1 Sales of environmentally friendly products multiplied by the operating margin.
*2 The sale of electricity from in-house solar power generation equipment is included.

# Environmental Data

## Response to Climate Change

artience Group (coverage 96%) has undergone third-party verification of its Scope 1 and 2 greenhouse gas ($CO_2$) emissions and energy data from the major factories and plants in Japan (Fuji Factory, Kawagoe Factory, Saitama Factory and Moriyama Factory) based on the market-based method.

### ■Scope 1 to 3 emissions

(Unit: t-$CO_2$)

| Item | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|
| Scope 1 (direct emissions) | | 48,300 | 51,027 | 63,619 | 67,012 | 63,590 |
| | Heavy fuel oil A | 1,379 | 994 | 958 | 894 | 920 |
| | Municipal gas | 46,272 | 43,574 | 55,175 | 57,875 | 51,124 |
| | LPG | 109 | 99 | 356 | 420 | 569 |
| Scope 2 (indirect emissions from energy sources) | Market-based method | 23,960 | 27,934 | 90,949 | 84,990 | 81,935 |
| Scope 1 and 2 emissions | | 72,260 | 78,961 | 154,568 | 152,002 | 145,525 |
| Scope 3 (other indirect emissions) | | 595,797 | 868,211 | 1,608,469 | 1,933,552 | 2,110,362 |
| | Category 1 : Purchased goods and services | 518,434 | 766,535 | 1,421,382 | 1,720,376 | 1,918,335 |
| | Category 2: Capital goods | 19,075 | 21,823 | 43,392 | 49,608 | 41,564 |
| | Category 3: Fuel and energy related activities not included in Scope 1 or 2 | 14,908 | 16,507 | 29,729 | 30,526 | 21,642 |
| | Category 4: Transportation and delivery (upstream) | 23,181 | 36,454 | 60,878 | 73,821 | 72,566 |
| | Category 5: Waste generated in operations | 12,374 | 16,458 | 27,389 | 27,849 | 24,181 |
| | Category 6: Business travel | 191 | 552 | 936 | 907 | 1,008 |
| | Category 7: Employee commuting | 946 | 1,565 | 3,018 | 3,267 | 3,297 |
| | Category 8: Leased assets (upstream) | 0 | 160 | 0 | 0 | 0 |
| | Category 9: Transportation and delivery (downstream) | 6,688 | 8,157 | 21,745 | 27,198 | 27,769 |
| | Category 10: Processing of sold products | — | — | — | — | — |
| | Category 11: Use of sold products | — | — | — | — | — |
| | Category 12: End-of-life treatment of sold products | — | — | — | — | — |
| | Category 13: Leased assets (downstream) | 0 | 0 | 0 | 0 | 0 |
| | Category 14: Franchise | 0 | 0 | 0 | 0 | 0 |
| | Category 15: Investments | 0 | 0 | 0 | 0 | 0 |
| Scope 1, 2 and 3 emissions | | 668,057 | 947,172 | 1,763,037 | 2,085,554 | 2,255,887 |

【Scope of calculation】
·In FY2025, Group (consolidated): Approx. 96% coverage (on a net sales basis) for Scope 1 and 2 emissions and approx. 89% coverage (on a net sales basis) for Scope 3 emissions
·In FY2024, Group (consolidated): Approx. 97% coverage (on a net sales basis) for Scope 1 and 2 emissions and approx. 87% coverage (on a net sales basis) for Scope 3 emissions
·In FY2023, Group (consolidated): Approx. 97% coverage (on a net sales basis) for Scope 1 and 2 emissions and approx. 86% coverage (on a net sales basis) for Scope 3 emissions
·In FY2022, Japan (consolidated): The scope of calculation and categories were expanded by adding non-production bases to the 15 major bases. 100% coverage (on a net sales basis) for Scope 1 and 2 emissions
·In FY2021, Japan (consolidated): 15 major bases, partly outside the scope of calculation

### ■$CO_2$ emissions / $CO_2$ emissions per unit of sales

| | | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|---|
| $CO_2$ emissions (t-$CO_2$) | $CO_2$ emissions Total in Japan*1 | | 79,380 | 73,404 | 59,669 | 67,729 | 65,941 |
| | $CO_2$ emissions Overseas total*2 | | 120,893 | 112,023 | 99,903 | 84,272 | 79,584 |
| | | Asia, China and Eastern Asia | 101,970 | 94,850 | 83,431 | 71,986 | 67,707 |
| | | Europe | 9,753 | 7,308 | 6,148 | 5,053 | 5,346 |
| | | Americas | 9,169 | 9,865 | 10,324 | 7,234 | 6,531 |
| | $CO_2$ emissions Group total | | 200,273 | 185,427 | 159,572 | 152,002 | 145,525 |
| | $CO_2$ emissions per unit of sales (t-$CO_2$/million JPY) | | 0.70 | 0.59 | 0.50 | 0.43 | 0.42 |

【Scope of calculation】 All bases in Japan and major overseas affiliates engaging in manufacturing
*1 For the electricity emission factor in Japan, we use the emission factor for each electric power company that is announced every year.
*2 Overseas electricity emissions factors have been calculated using the emissions factors of individual countries from the Inventory Database for Environmental Analysis (IDEA.)

# Environmental Data

## Scopes 1, 2 and 3 emissions calculation method

| Item | | Calculation method |
|---|---|---|
| Scope 1 (direct emissions) | | Calculated direct emissions from stationary combustion of fuels (heavy fuel oil A, municipal gas, LPG, etc.) in business activities. The emissions unit value set out in Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain of the Ministry of the Environment were used. |
| Scope 2 (indirect emissions from energy sources) | | Calculated indirect emissions originating from electricity purchased in business activities. The latest emission factors for each electric power company published under the Act on Promotion of Global Warming Countermeasures were used. |
| Scope 3 (other indirect emissions) | Category 1: Purchased goods and services | Calculated emissions by multiplying the cost of raw materials purchased, the cost of merchandise purchased, supplies expense, and the cost of auxiliary materials purchased by the emissions intensity for each item. For items related to consumables and services, the applicable emission factor on the value basis was used for calculation.<br>* Emissions intensity used: IDEA3.4, the input-output table, and global environmental impact intensity |
| | Category 2: Capital goods | Calculated emissions by multiplying capital expenditure (excluding environmental costs) by an emissions intensity (2.73 t-$CO_2$e/million JPY.) |
| | Category 3: Fuel and energy related activities not included in Scope 1 or 2 | Calculated emissions by multiplying electricity consumption and heat consumption by the emissions intensity. (Emissions intensity used: The Database of Emissions Unit Values for Calculation of Greenhouse Gas Emissions, etc., by Organizations throughout the Supply Chain (Ver. 3.4)) |
| | Category 4: Transportation and delivery (upstream) | Calculated emissions using the volumes of raw materials purchased, merchandise purchased, and auxiliary materials and a transportation scenario: a transport of 500 km using a tanker truck or 10-ton truck (a loading ratio of 62%)<br>* Emissions intensity used: IDEA3.4. Calculated $CO_2$ emissions associated with the transportation and distribution of our products and merchandise based on regular reports from specified consignors under the Act on Rationalizing Energy Use. Emissions in the scope of specified consignors not subject to reporting were calculated from the value concerning emissions understood by the company's system with the use of the emission intensity and in consideration of the period of storage in external warehouses. Emissions intensity used: Fuel method, improved ton-kilometer method, conventional ton-kilometer method and the input-output table |
| | Category 5: Waste generated in operations | Classified industrial waste by type of waste and by stage of the disposal process (transportation, incineration, and landfill) and calculated emissions by multiplying the amount of industrial waste in each classification by the emissions intensity for each stage. Emissions from sewerage were calculated from the value for the volume of use.<br>* Emissions intensity used: IDEA3.4 and the input-output table |
| | Category 6: Business travel | Calculated emissions by multiplying the number of employees by the emissions intensity (0.130 t-$CO_2$ per person per year.) |
| | Category 7: Employee commuting | Classified employees by type of workplace and by location of workplace and calculated emissions by multiplying the number of employees in each classification by the number of business days and by the emissions intensity for each classification.<br>* Emissions intensity used: emissions intensities per employee per business day by type of workplace and by location of workplace set out in the Database of Emissions Unit Values for Calculation of Greenhouse Gas Emissions, etc., by Organizations throughout the Supply Chain (Ver. 3.4) |
| | Category 8: Leased assets (upstream) | Emissions are deemed to be zero because emissions are included in emissions at our business sites (Scopes 1 and 2.) |
| | Category 9: Transportation and delivery (downstream) | Assumed transportation from a processing company to a retailer and calculated emissions using a transportation scenario: a transport of 100 km using a 4-ton truck (average loading ratio.)<br>* Emissions intensity used: IDEA3.4 |
| | Category 10: Processing of sold products | Do not calculate emissions because there are a wide variety of products and it is difficult to create a scenario about the processing of sold products. |
| | Category 11: Use of sold products | Do not calculate emissions because there are a wide variety of products and it is difficult to create a scenario about the use of sold products. |
| | Category 12: End-of-life treatment of sold products | Do not calculate emissions because there are a wide variety of products and it is difficult to create a scenario about the end-of-life treatment of sold products. |
| | Category 13: Leased assets (downstream) | Emissions are deemed to be zero because we have no applicable leased assets. |
| | Category 14: Franchise | Emissions are deemed to be zero because we have no franchises. |
| | Category 15: Investments | Emissions are deemed to be zero because we do not engage in investment business activities directly. |

* In FY2025, the scope of calculation was the same as in FY2024. For the scope of calculation, see page 41.
* IDEA: Advanced Industrial Science and Technology (AIST) Inventory Database for Environmental Analysis (AIST-IDEA) Ver. 3.4

## Energy consumption / energy use per production unit

| | | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|---|
| Energy consumption (kL) | Total in Japan | | 39,849 | 37,723 | 30,752 | 30,570 | 29,040 |
| | | Major factories and plants in Japan | 37,056 | 34,830 | 28,258 | 27,979 | 26,414 |
| | | Affiliates in Japan | 2,793 | 2,893 | 2,494 | 2,591 | 2,626 |
| | Overseas total | | 49,860 | 47,498 | 43,354 | 43,839 | 42,113 |
| | | Major overseas affiliates | 49,860 | 47,498 | 43,354 | 43,839 | 42,113 |
| | Group (consolidated) total | | 89,709 | 85,221 | 74,106 | 74,409 | 71,153 |
| Energy use per production unit (L/t) | Japan | | 223.9 | 226.2 | 178.1 | 175.0 | 171.6 |
| | | Major factories and plants in Japan | 223.9 | 226.2 | 178.1 | 175.0 | 171.6 |
| | Overseas | | 164.1 | 164.1 | 156.5 | 155.8 | 143.0 |
| | | Major overseas affiliates | 164.1 | 164.1 | 156.5 | 155.8 | 143.0 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing

# Environmental Data

## Water Resource Management

### ■Water consumption / water withdrawal by source / amount of wastewater / breakdown of volume of wastewater by destination

| | | | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|---|---|
| Water consumption (thousand m³) | Japan | Total in Japan | | 3,018 | 2,861 | 2,495 | 2,632 | 2,777 |
| | | | Major factories and plants in Japan | 2,986 | 2,831 | 2,460 | 2,597 | 2,741 |
| | | | Affiliates in Japan | 32 | 30 | 35 | 35 | 36 |
| | | By source | Water supplied | 185 | 172 | 173 | 153 | 180 |
| | | | Industrial-use water | 5 | 4 | 4 | 6 | 6 |
| | | | Groundwater | 2,827 | 2,685 | 2,326 | 2,473 | 2,590 |
| | | | Other (rainwater, seawater, river and others) | 0 | 0 | 0 | 0 | 0 |
| | Overseas | Overseas total | | 2,577 | 1,996 | 1,749 | 1,332 | 1,430 |
| | | | Major overseas affiliates | 2,577 | 1,996 | 1,749 | 1,332 | 1,430 |
| | | By source | Water supplied | 635 | 1,188 | 1,281 | 853 | 887 |
| | | | Industrial-use water | 1,278 | 116 | 29 | 39 | 82 |
| | | | Groundwater | 664 | 692 | 437 | 441 | 464 |
| | | | Other (rainwater, seawater, river and others) | 0 | 0 | 0 | 0 | 0 |
| | Group (consolidated) total | | | 5,595 | 4,857 | 4,244 | 3,964 | 4,207 |
| Amount of wastewater (thousand m³) | Japan | Total in Japan | | 2,319 | 2,261 | 2,049 | 2,330 | 2,304 |
| | | | Major factories and plants in Japan | 2,302 | 2,235 | 2,018 | 2,298 | 2,272 |
| | | | Affiliates in Japan | 17 | 26 | 31 | 32 | 32 |
| | | By destination | Sewerage networks | — | 1,706 | 1,568 | 1,801 | 1,753 |
| | | | River | — | 550 | 476 | 529 | 551 |
| | | | Sea | — | 5 | 4 | 0 | 0 |
| | | | Groundwater | — | 0 | 0 | 0 | 0 |
| | Overseas | Overseas total | | 1,704 | 1,606 | 1,769 | 1,590 | 990 |
| | | | Major overseas affiliates | 1,704 | 1,606 | 1,769 | 1,590 | 990 |
| | | By destination | Sewerage networks | — | 1,605 | 1,287 | 1,156 | 479 |
| | | | River | — | 1 | 482 | 434 | 482 |
| | | | Sea | — | 0 | 0 | 0 | 0 |
| | | | Groundwater | — | 0 | 0 | 0 | 0 |
| | Group (consolidated) total | | | 4,023 | 3,867 | 3,818 | 3,920 | 3,294 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing

### ■Water intake and consumption in regions with water stress

| Category | FY2023 | FY2024 | FY2025 |
|---|---|---|---|
| Water withdrawal (thousand m³) | 351.0 | 281.6 | 283.2 |
| Ratio to total water intake / consumption (%) | 8.3 | 7.1 | 6.7 |
| Amount of wastewater (thousand m³) | 218.3 | 114.5 | 126.5 |
| Ratio to total amount of wastewater (%) | 5.7 | 2.9 | 3.8 |

【Scope of calculation】 Bases in the Asian region (excluding Japan) that were rated as having high or extremely high water risk, among 43 business sites surveyed in Japan and overseas using Aqueduct 4.0 (Details shown on page 26.)

# Environmental Data

## Water pollutant discharges

| | | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|---|
| COD emissions (t) | Total in Japan | | 68.4 | 64.6 | 54.3 | 72.2 | 67.3 |
| | | Major factories and plants in Japan | 68.4 | 64.6 | 54.3 | 72.2 | 67.3 |
| | | Affiliates in Japan | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| | Overseas total | | 80.3 | 159.9 | 104.7 | 87.4 | 66.4 |
| | | Major overseas affiliates | 80.3 | 159.9 | 104.7 | 87.4 | 66.4 |
| | Group (consolidated) total | | 148.7 | 224.5 | 159.0 | 159.6 | 133.7 |
| Total nitrogen emissions (t) | Total in Japan | | — | 0.7 | 27.6 | 26.8 | 22.8 |
| | | Major factories and plants in Japan | — | 0.7 | 27.6 | 26.8 | 22.8 |
| | | Affiliates in Japan | — | 0.0 | 0.0 | 0.0 | 0.0 |
| | Overseas total | | — | 22.0 | 12.4 | 9.6 | 13.6 |
| | | Major overseas affiliates | — | 22.0 | 12.4 | 9.6 | 13.6 |
| | Group (consolidated) total | | — | 22.7 | 40.0 | 36.4 | 36.5 |
| Total phosphorous emissions (t) | Total in Japan | | — | 0.1 | 0.9 | 3.6 | 11.5 |
| | | Major factories and plants in Japan | — | 0.1 | 0.9 | 3.6 | 11.3 |
| | | Affiliates in Japan | — | 0.0 | 0.0 | 0.0 | 0.2 |
| | Overseas total | | — | 0.2 | 0.2 | 0.2 | 0.2 |
| | | Major overseas affiliates | — | 0.2 | 0.2 | 0.2 | 0.2 |
| | Group (consolidated) total | | — | 0.3 | 1.1 | 3.8 | 11.8 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing (91% coverage)
The total nitrogen and total phosphorus emissions for FY2023 and FY2024 have been restated due to a review of our data aggregation methodology.

## State of compliance with water-related laws and regulations

| | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|
| Number of violations of water-related standards and laws and regulations (case) | 0 | 0 | 0 | 0 | 0 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing

# Environmental Data

## Waste Management

### ■Volume of waste emissions / volume of industrial waste emissions / amount of waste treated off-site / final disposal volume

| | | | | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|---|---|---|
| Volume of waste emissions (t) | Japan | Hazardous waste | Subtotal | | 7,893 | 7,927 | 6,816 | 6,821 | 7,618 |
| | | | | Valuables | 996 | 1,118 | 1,186 | 1,249 | 1,967 |
| | | | | Reuse within the Group | 3,940 | 3,983 | 3,487 | 3,653 | 3,905 |
| | | | | Recycling at recyclers | 2,957 | 2,826 | 2,143 | 1,919 | 1,747 |
| | | | Landfill | | 0 | 0 | 0 | 3 | 5 |
| | | | Total | | 7,893 | 7,927 | 6,816 | 6,824 | 7,623 |
| | | Non-hazardous waste | Subtotal | | 10,157 | 9,525 | 7,275 | 7,774 | 8,756 |
| | | | | Valuables | 3,695 | 3,901 | 3,227 | 4,001 | 3,571 |
| | | | | Reuse within the Group | 4 | 6 | 0 | 56 | 86 |
| | | | | Recycling at recyclers | 6,458 | 5,618 | 4,048 | 3,717 | 5,099 |
| | | | Landfill | | 3 | 0 | 21 | 15 | 9 |
| | | | Total | | 10,161 | 9,525 | 7,296 | 7,789 | 8,765 |
| | | Recycling (total in Japan) | | | 18,049 | 17,452 | 14,091 | 14,595 | 16,374 |
| | | Recycling rate (total in Japan) (%) | | | 100 | 100 | 99.8 | 99.9 | 100 |
| | Total in Japan | | | | 18,052 | 17,455 | 14,112 | 14,614 | 16,388 |
| | | Major factories and plants in Japan | | | 15,984 | 15,408 | 11,918 | 12,345 | 13,596 |
| | | Affiliates in Japan | | | 2,068 | 2,047 | 2,194 | 2,269 | 2,792 |
| | Overseas total | | | | 15,999 | 14,410 | 12,341 | 13,186 | 11,034 |
| | | Major overseas affiliates | | | 15,999 | 14,410 | 12,341 | 13,186 | 11,034 |
| | Group (consolidated) total | | | | 34,051 | 31,865 | 26,453 | 27,800 | 27,422 |
| Final disposal volume (Non-recycled amount) (t) | Final waste disposal rate Non-recycled rate (%) | | Japan | | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 |
| | | | Group (Japan & overseas) | | — | — | — | 1.6 | 2.6 |
| | Total in Japan | | | | 3.1 | 3.1 | 21.2 | 18.6 | 13.8 |
| | | Major factories and plants in Japan | | | 0.0 | 0.0 | 0.0 | 3.6 | 2.5 |
| | | Affiliates in Japan | | | 3.1 | 3.1 | 21.2 | 15.0 | 11.3 |
| | Overseas total | | | | — | — | — | 424.0 | 693.0 |
| | | Major overseas affiliates | | | — | — | — | 424.0 | 693.0 |
| | Group (consolidated) total | | | | — | — | — | 442.6 | 706.8 |
| Volume of industrial waste emissions (t) | Total in Japan | | | | 8,956 | 7,865 | 5,870 | 5,403 | 6,224 |
| | | Major factories and plants in Japan | | | 8,337 | 7,345 | 5,231 | 4,664 | 5,280 |
| | | Affiliates in Japan | | | 619 | 520 | 639 | 739 | 944 |
| Amount of waste treated off-site (t) | Total in Japan | | | | 14,110 | 13,466 | 10,625 | 10,904 | 12,398 |
| | | Major factories and plants in Japan | | | 12,154 | 11,641 | 8,745 | 8,961 | 10,062 |
| | | Affiliates in Japan | | | 1,956 | 1,825 | 1,880 | 1,943 | 2,336 |

【Scope of calculation】
* In FY2024 to FY2025, Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing (91% coverage)
* In FY2022 to FY2023, Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing; partly outside the scope of calculation

# Environmental Data

## Pollution Prevention

### ■NOx emissions / SOx emissions / Particulate emissions / VOC emissions

| | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|
| NOx emissions (t) | Total in Japan | 53.3 | 62.8 | 38.6 | 37.6 | 41.4 |
| | Major factories and plants in Japan | 53.1 | 62.6 | 38.4 | 37.6 | 41.4 |
| | Affiliates in Japan | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 |
| | Overseas total | 21.6 | 32.2 | 28.5 | 28.1 | 29.3 |
| | Major overseas affiliates | 21.6 | 32.2 | 28.5 | 28.1 | 29.3 |
| | Group (consolidated) total | 74.9 | 95.0 | 67.1 | 65.7 | 70.7 |
| SOx emissions (t) | Total in Japan | 0.8 | 0.4 | 0.5 | 0.4 | 0.5 |
| | Major factories and plants in Japan | 0.8 | 0.4 | 0.5 | 0.4 | 0.4 |
| | Affiliates in Japan | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| | Overseas total | 6.5 | 12.8 | 14.3 | 16.6 | 13.1 |
| | Major overseas affiliates | 6.5 | 12.8 | 14.3 | 16.6 | 13.1 |
| | Group (consolidated) total | 7.3 | 13.2 | 14.8 | 17.0 | 13.6 |
| Particulate emissions (t) | Total in Japan | 1.7 | 1.5 | 2.2 | 1.3 | 1.6 |
| | Major factories and plants in Japan | 1.7 | 1.5 | 2.2 | 1.3 | 1.6 |
| | Affiliates in Japan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | Overseas total | 6.6 | 8.8 | 7.2 | 8.8 | 8.4 |
| | Major overseas affiliates | 6.6 | 8.8 | 7.2 | 8.8 | 8.4 |
| | Group (consolidated) total | 8.3 | 10.3 | 9.4 | 10.1 | 10.0 |
| VOC emissions (t) | Total in Japan | 44.3 | 53.3 | 52.7 | 54.5 | 59.0 |
| | Major factories and plants in Japan | 44.0 | 53.2 | 52.4 | 48.8 | 53.6 |
| | Affiliates in Japan | 0.4 | 0.1 | 0.3 | 5.7 | 5.4 |
| Total air pollutant emissions (t) | Total in Japan | 100.1 | 118.0 | 94.0 | 93.8 | 102.4 |
| | Overseas total | 34.7 | 53.8 | 50.0 | 53.5 | 50.8 |
| | Group (consolidated) total | 134.8 | 171.8 | 144.0 | 147.3 | 153.2 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing (91% coverage)

## Chemical Substance Management

### ■Changes in chemical substance emissions

| | | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
|---|---|---|---|---|---|---|
| Chemical substance emissions (t) | Total in Japan | 118.4 | 149.7 | 102.8 | 136.4 | 171.6 |
| | Major factories and plants in Japan | 117.2 | 149.3 | 100.7 | 128.9 | 164.1 |
| | Affiliates in Japan | 1.1 | 0.4 | 2.1 | 7.6 | 7.5 |
| | Overseas total | 213.3 | 107.3 | 144.8 | 132.6 | 142.2 |
| | Major overseas affiliates | 213.3 | 107.3 | 144.8 | 132.6 | 142.2 |
| | Group (consolidated) total | 331.7 | 257.0 | 247.6 | 269.0 | 313.8 |

【Scope of calculation】 Group (consolidated): Major factories and plants in Japan, affiliates in Japan and major overseas affiliates engaging in manufacturing
* Past figures have been recalculated retrospectively due to the revision of the operation method of the aggregation system and a review of substances covered by PRTR in FY2023.

### ■Emissions and transfers of PRTR-designated chemicals

| | FY2025 | Amount emitted | | | Amount transferred | |
|---|---|---|---|---|---|---|
| | | Atmosphere | Public waters | Soil | Sewerage | Waste materials |
| Emissions and transfers of PRTR-designated chemicals (kg) | Total in Japan | 63.5 | 0 | 0 | 0 | 200.8 |

【Scope of calculation】 Major factories and plants in Japan