

Environmental Policy

Basic Approach

Approach Policy

With growing awareness of environmental conservation throughout the world in the 1990s, the scope of environmental issues to be tackled by businesses grew significantly. TOPPAN reorganized its structure for environmental conservation by establishing the Ecology Center in 1991 and formulating a Declaration on the Global Environment, a basic philosophy for environmental conservation activities, in 1992.

In April 2009 we revised this declaration into the TOPPAN Group Declaration on the Global Environment, an environmental action philosophy for the entire Group. The revised declaration reflects our commitment to realizing a sustainable society where all living things can coexist into the future.

The Annex to the TOPPAN Group Declaration on the Global Environment released in March 2022 presents requirements and recommendations for legal observance and decarbonization (approach to climate change), atmospheric pollution prevention, optimal water use, resource circulation, hazardous substance control, management of chemical substances in products, natural resources, and biodiversity. We are intensifying environmental activities based on this annex.

We are considering the entire lifecycle of products and services from production and transportation/distribution to end-of-life treatment. All entities and facilities in the value chain are covered, from suppliers, service providers, and contractors to other major business partners (e.g., licensees, joint venture partners, subcontracting partners, due diligence providers, and partners in M&A).

The TOPPAN Group Declaration on the Global Environment


As responsible members of international society, we who work within the TOPPAN Group strive to realize a sustainable society through forward looking corporate activities with consideration for the conservation of the global environment.

Basic Principles

1. We observe all laws, regulations and in-company rules relating to the environment.
2. For the future of the Earth, we strive for the effective utilization of limited resources and the reduction of all types of environmental burden.
3. With foresight, we promote the development and widespread use of products that show consideration for the environment, and contribute to the environmental activities of customers.
4. We engage in communication related to the environment with a wide range of peoples both inside and outside the company, and strive for mutual understanding.
5. We also take a proactive approach to environmental conservation in corporate activities in international society.

Formulated in April 1992

Revised in October 2023

 More details on the Annex to the TOPPAN Group Declaration on the Global Environment >

https://www.holdings.toppan.com/assets/en/pdf/sustainability/The_Toppa_Group_Declaration_on_the_Global_Environment_AnnexV1.pdf

Environmental Targets

Policy Activity results, performance data

TOPPAN Group Environmental Vision 2050

We have pledged our ongoing commitment to solving environmental issues throughout the supply chain in cooperation with the communities we work with around the world. To accelerate Group initiatives for a sustainable society that supports all forms of life in the global ecosystem of tomorrow, we have revised the TOPPAN Group Environmental Vision 2050 ("Vision 2050") by adding two themes: preserving biodiversity and aiming for net zero Scope 3 greenhouse gas emissions. Vision 2050 is a long-term policy established in 2021 to address global environmental issues.

TOPPAN Group Medium-and-Long-Term Environmental Targets for Fiscal 2030

In tandem with the updated Vision 2050, we have revised the TOPPAN Group Medium-and-Long-Term Environmental Targets for Fiscal 2030 ("fiscal 2030 goals"), a set of targets in alignment with the timeline set for the SDGs. Stricter reduction targets for Scope 1 & 2 and Scope 3 greenhouse gas (GHG) emissions have been set to meet the global 1.5°C goal. We have also tightened the reduction target for final landfill waste disposal and introduced new targets for preserving biodiversity and optimal water usage.

Updated Points in Vision 2050 and the Fiscal 2030 Goals

1. Contributing to Decarbonization

In Vision 2050 we pledge our commitment to achieving net zero Scope 3 GHG emissions, along with our original net zero target for Scope 1 & 2 emissions. The updated fiscal 2030 goals, meanwhile, include stricter reduction targets to keep Scope 1 & 2 and Scope 3 GHG emissions within the 1.5°C rise limit over the average temperature before the industrial revolution, as estimated from historical records. The boundary of reduction targets has been expanded to Group sites that were not covered when the fiscal 2030 goals were formulated in 2021.

2. Preserving Biodiversity

A new biodiversity preservation theme has been added to Vision 2050 to reinforce our commitment to pursuing nature-positive outcomes and creating a society that lives in symbiosis with nature. The fiscal 2030 goals include a raw material procurement target for paper production throughout the supply chain and a target for the conservation of symbiotic communities where people and nature thrive. Toppan Inc. has deepened its involvement in biodiversity preservation by becoming a qualified member of the 30by30 Alliance for Biodiversity, a platform launched by the Ministry of the Environment and a number of public, industrial, and private organizations in Japan.

3. Contributing to Resource Circulation

The fiscal 2030 goals include a revised reduction target for final landfill waste disposal in line with the expanded reduction target boundary.

4. Optimal Water Use

The fiscal 2030 goals introduce targets based on the results of water risk assessments at individual Group sites across the world. Water risks in the river basins around individual sites have been evaluated with Aqueduct* and other tools. These

evaluations, combined with onsite surveys conducted mainly by questionnaire, have allowed us to set reduction targets for water use at sites found to be subject to higher water risks.

*Aqueduct: A tool for evaluating water risks developed by the World Resources Institute (WRI)

TOPPAN Group Environmental Vision 2050

As a member of international society, the TOPPAN Group aims to enable “fulfilling, sustainable living” by contributing to decarbonization, preservation of biodiversity, resource circulation, and the optimal use of water through forward-looking activities with consideration for preservation of the global environment.

1. Contributing to Decarbonization

Aiming for net zero Scope 1 & 2 and Scope 3 greenhouse gas emissions.

2. Preserving Biodiversity

Aiming for a society that coexists in harmony with nature, balancing conservation with socioeconomic activity.

3. Contributing to Resource Circulation

Aiming for zero waste emissions.

4. Optimal Water Use

Contributing to achieving optimal water use and improving water quality by preventing pollution.

TOPPAN Group Medium-and-Long-Term Environmental Targets for Fiscal 2030

1. Contributing to Decarbonization

Reduce Scope 1 & 2 greenhouse gas emissions by 54.6% (by 847 kt-CO₂e) compared to the fiscal 2017 level (1,552 kt-CO₂e). (Renewable energy ratio of 6.5%)

Reduce Scope 3 greenhouse gas emissions by 54.6% (by 4,021 kt-CO₂e) compared to the fiscal 2017 level (7,365 kt-CO₂e).

2. Preserving Biodiversity

Confirm 100% legality in procurement of raw materials of paper.

Contribute to the conservation of regions in which humans coexist with nature both inside and outside the Group, covering an area equivalent to 10% of the area of manufacturing sites.

3. Contributing to Resource Circulation

Reduce final landfill waste disposal by 60% (by 5,296 t) compared to the fiscal 2017 level (8,739 t).

Increase waste plastic material recycling rate by 12% (to 65%) compared to the fiscal 2017 level (53%).

4. Optimal Water Use

Achieve water withdrawal reduction targets for at least 50% of sites (4 out of 7 sites) with high water risk (water stress exceeding 40%).

Ensure no cases of action taken by authorities due to exceeding regulatory threshold values.

Transition Plan for Carbon Neutrality by 2050

Scope 1 & 2 Greenhouse Gas Emissions

By 2030, Scope 1 & 2 greenhouse gas (GHG) emissions will be reduced primarily through energy efficiency measures and the preferential adoption of low-carbon power and renewable energy sources.

From 2030, we will switch fuel sources and increase the use of decarbonized fuel.

By current estimates, approximately 10% of the GHG emissions resulting from our operations in fiscal 2017 will still

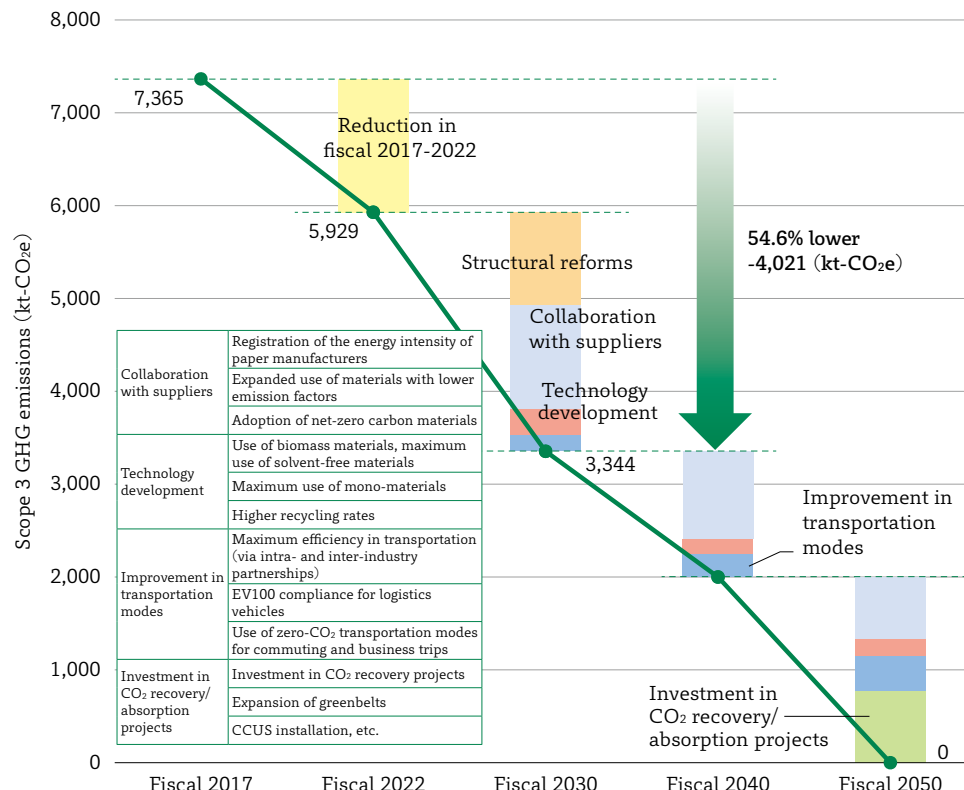
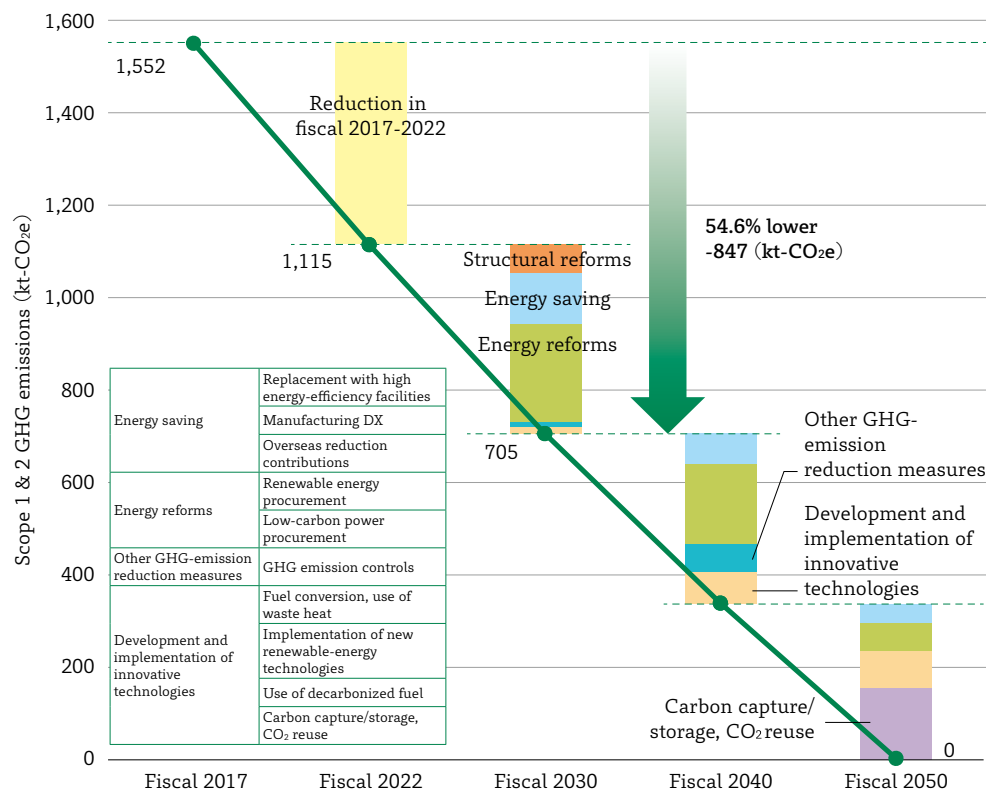
be emitted in 2050. These emissions will be absorbed using carbon capture/storage technologies, CO₂ reuse technologies, and other carbon neutrality measures deployed to achieve net zero emissions by 2050.

Scope 3 Greenhouse Gas Emissions

By 2030, we will further adopt low-carbon materials and switch from paper to digital data through the digital transformation (DX).

From 2030, we will adopt low-carbon logistics companies outside of the Group and shift from fossil fuels to electricity to power vehicles owned by logistics companies within the Group.

By current estimates, approximately 10% of the GHG emissions resulting from our operations in fiscal 2017 will still be emitted in 2050. We will absorb these emissions by investing in CO₂ recovery projects and expanding greenbelts to achieve net zero emissions by 2050.



Single-year Environmental Targets

The Ecology Center aggregates annual environmental performance data related to the various goals set in the TOPPAN Group Medium-and-Long-Term Environmental Targets for Fiscal 2030, reports results to the Board of Directors, sets single-

year targets, and develops measures for the current year with authorization from the Board of Directors. Site-specific targets set in line with the Groupwide targets are treated as key performance indicators for managing the progress of environmental conservation activities carried out at individual sites.

Environmental Targets for Fiscal 2023

	Performance Target	Performance Indicator	Target Value for Fiscal 2023
1) Contributing to decarbonization	Reduce CO ₂ emissions	Scope 1 & 2 greenhouse gas emissions	1,109 kt-CO ₂ e
		Scope 3 greenhouse gas emissions	6,041 kt-CO ₂ e
2) Preserving Biodiversity	Prevent illegal deforestation	Confirm the legality of raw materials procured for paper production	100%
	Contribute to a society that coexists in harmony with nature	Area of land in which humans coexist in harmony with nature	Increase by 1% relative to the total area of manufacturing sites
3) Contributing to resource circulation	Reduce final landfill waste disposal	Final landfill waste disposal	7,704 t
	Circulate resources	Waste plastic material recycling rate	57.3%
4) Optimal water use	Reduce water withdrawal in regions with higher water risk	No. of sites in these regions that implement water-saving measures	4 sites
	Prevent water pollution	No. of cases of action being taken by authorities in response to levels exceeding regulatory standards	0

Environment-related Data

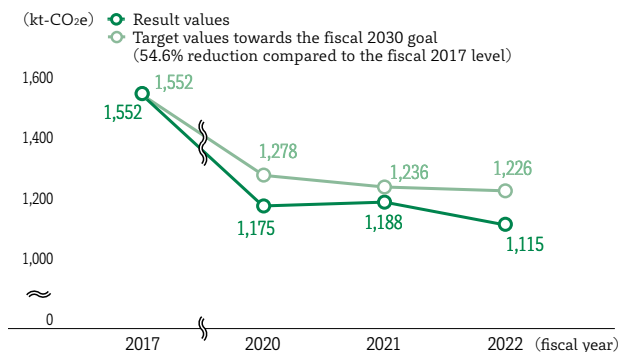
Activity results, performance data

TOPPAN Group Medium-and-Long-Term Environmental Targets for Fiscal 2030 (Fiscal 2022 Results)

We have been undertaking environmental conservation activities to ensure that the entire Group attains the target values set for fiscal 2030. The values from fiscal 2017 are set as baselines.

Scope 1 & 2 Greenhouse Gas Emissions ✔

In fiscal 2022 we achieved our single-year Scope 1 & 2 greenhouse gas (GHG)-emission reduction target towards the fiscal 2030 goal (under the Science Based Targets initiative [SBTi] 1.5°C scenario).



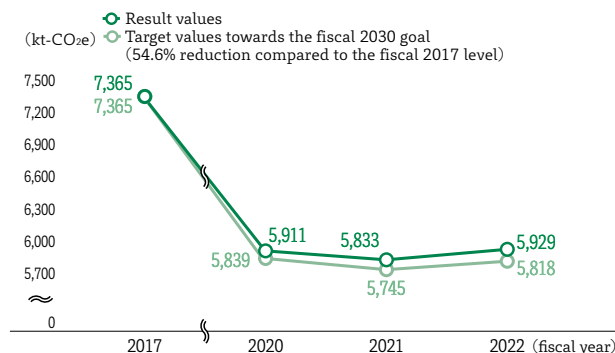
*For Scope 1 & 2 emissions, greenhouse gas (GHG) emissions associated with electricity consumption at domestic sites are calculated using the adjusted emission factor according to the method specified in the Ministerial Ordinance Concerning the Calculation of Greenhouse Gas Emissions from the Business Activities of Specified Dischargers issued by the Ministry of the Environment (MOE) of Japan. Meanwhile, GHG emissions associated with electricity consumption at overseas sites are calculated using country-specific conversion factors published by the International Energy Agency (IEA).

GHG emissions associated with fuel consumption, excluding electricity consumption, are calculated globally by the MOE method specified in the Ministerial Ordinance Concerning the Calculation of Greenhouse Gas Emissions from the Business Activities of Specified Dischargers.

*The fiscal 2017 result is adjusted based on the revised medium-and-long-term environmental target (see page 96). (The result before the revision was 1,373 kt-CO₂e.)

Scope 3 Greenhouse Gas Emissions ✔

In fiscal 2022 we failed to attain our single-year Scope 3 GHG-emission reduction target towards the fiscal 2030 goal (under the SBTi 1.5°C scenario).



*Methods for calculating the Scope 3 GHG emissions are presented on page 107.

*The fiscal 2017 result is adjusted based on the revised medium-and-long-term environmental target (see page 96). (The result before the revision was 6,122 kt-CO₂e.)

Renewable-derived Energy: Amount and Ratio

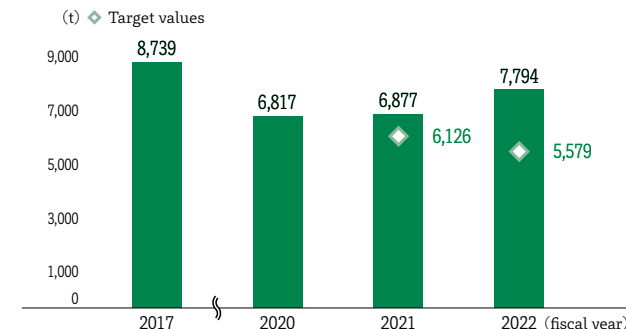
Fiscal Year	Renewable-derived Energy (GWh/year)	Ratio (%)
2021	11.10	0.67
2022	20.22	1.19

*Renewable-derived energy (electricity derived from renewable energy sources) is the renewable energy procured from electricity retailers plus the total energy generated at renewable energy power facilities (for solar power and hydro power) installed at Group sites.

*The ratio of renewable-derived energy is the percentage of electricity derived from renewable energy sources out of our overall power consumption.

Final Landfill Waste Disposal ✔

Efforts have been underway since fiscal 2021 to attain the single-year targets set in line with the fiscal 2030 goal. Our reduction target was not attained in fiscal 2022.



*The fiscal 2017 result is adjusted based on the revised medium-and-long-term environmental target (see page 96). (The result before the revision was 7,407 t.)

Waste Plastic Material Recycling Rate

Efforts have been underway since fiscal 2021 to attain the single-year targets set in line with the fiscal 2030 goal. Our recycling-rate target was not attained in fiscal 2022.



Assessing Environmental Impact

Approach Activity results, performance data

We apply the “Life-cycle Impact assessment Method based on Endpoint modeling (LIME)” to assess the degree to which our initiatives for achieving environmental targets have reduced our total environmental impact. This life cycle assessment allows the Group to consolidate INPUT and OUTPUT data on the environmental burden associated with business activities into a single index of environmental impact. The LIME provides us with a quantitative view of how environmental impact is changing from the base year.

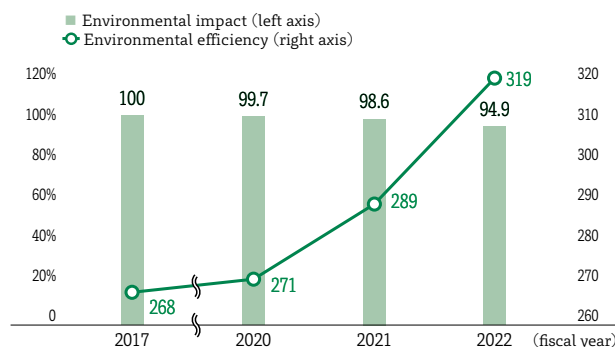
Quantifying Environmental Impact based on LIME

We apply the LIME method to quantify the total environmental impact across the Group, setting the base year value to 100.

With LIME 3, we attained a 5.1% reduction in environmental impact and a 19% enhancement in environmental efficiency in fiscal 2022, compared with the baseline values in fiscal 2017 (the base year in the LIME 3 calculation).

LIME 3 Assessment across the Group

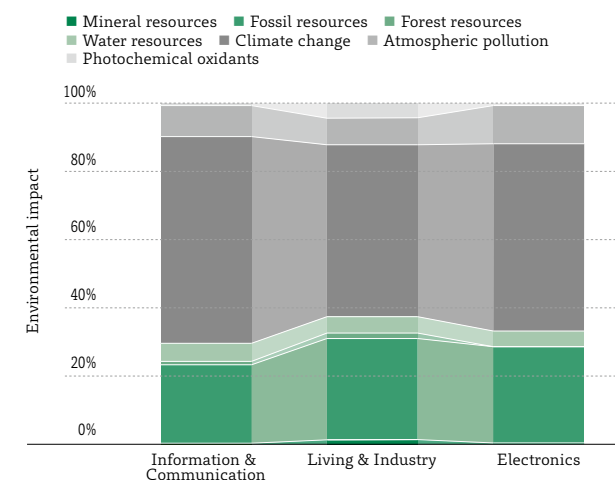
Environmental Impact and Environmental Efficiency



*1 The value in fiscal 2017 = 100 (baseline); calculated with nonproduction sites excluded

*2 Environmental efficiency = net sales / environmental impact
We have been reducing our climate change-related impact, a large component of the Group’s overall environmental impact, primarily through two channels: energy-saving and other eco initiatives that reduce energy consumption, and high-efficiency production and material recycling methods that reduce resource consumption.

Types of Environmental Impact by Business Field



*Our environmental impact cannot be expressed in uniform terms or units, as the materials and product types handled by the Group differ among the business fields. We therefore assess the environmental impact associated with key items for each business field.