

# Building of a Recycling-oriented Society

## Basic Approach

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The TOPPAN Group has formulated a set of priority policies towards the building of a recycling-oriented society as a critical challenge for management. We process industrial waste and waste materials in line with the following priorities: 1) First priority is given to reductions of the discharge of industrial waste and waste materials generated in association with business activities; 2) Second priority is given to the reuse or recycling of industrial waste and waste materials discharged in spite of the reduction efforts; and 3) Third priority is given to the application of appropriate treatment methods to industrial waste and waste materials not reused or recycled.

The order of priority may be revised if another order of priority is deemed to be more effective for reducing environmental burden.

## Activities

### Activity results, performance data

In a drive to use limited resources more effectively, we work to reduce the discharge of waste, increase the recycling rate, and apply appropriate waste treatment methods based on the TOPPAN Group Declaration on the Global Environment.

Waste paper derived from operational sites primarily in the Information & Communication and Living & Industry fields makes up the largest portion (63%) of the total waste discharged at Group sites. The next largest portions are waste plastics derived from plants in the Living & Industry field (18%) and

waste acid from the Electronics field. We have striven to increase the material recycling rate by processing waste paper into recycled paper, separating waste plastics and processing composite plastics into pellets, and recycling by other methods. Waste acid, meanwhile, has been treated in-house to lower volumes for disposal. For the hazardous waste regulated under Annex VIII (List A) of the Basel Convention, the total discharge has been confirmed and intensive efforts have been made to reduce discharge and appropriately manage and treat the waste. The list on the next page shows the results and targets for the discharge, discharge-reduction, and recycling of plastic

industrial waste, including waste from plastics used in products. These are the primary measures we have taken to promote plastic circulation in compliance with the Plastic Resource Circulation Act enforced in Japan in April 2022. For the sustainable use of water, a limited resource, individual Group sites assess water risks, reduce the levels of water used and control the quality of effluents discharged into water systems.

We will continue to strive for the effective use of limited resources by reducing overall waste discharge and intensifying material recycling.

## Discharge and Treatment of Hazardous and Non-hazardous Waste

Fiscal Year		2020	2021	2022
Total waste discharge (t)		322,110	315,512	297,211
Hazardous waste (t)	Discharge	29,978	29,699	25,953
	Material recycling	24,662	25,078	19,954
	Thermal recovery	3,596	3,349	3,370
	Simple incineration	298	305	1,106
	Landfill disposal	1,364	917	1,522
	Other	58	50	0
Non-hazardous waste (t)	Discharge	292,132	285,813	271,258
	Material recycling	248,060	240,011	231,767
	Thermal recovery	37,824	38,462	31,433
	Simple incineration	175	1,072	1,785
	Landfill disposal	5,452	5,960	6,272
	Other	620	309	0

### Plastic Circulation Targets Based on Japanese Legislation\*

	Company Name	Fiscal 2022 Discharge (t)	Fiscal 2022 Reduction/Recycling Target	Fiscal 2022 Result (Year-over-year)	Evaluation (Unachieved: ×, Achieved: ○)	Fiscal 2023 Reduction/Recycling Target
High-volume waste dischargers	Toppan Packaging Products Co., Ltd.	13,325	Increase the material recycling rate by 1.8% year over year	-0.3%	×	Increase the material recycling rate by 2.3% year over year
	Tamapoly Co., Ltd.	1,622	Reduce roll-film rewinding loss to below the previous year's level	Loss ratio: -0.1%	○	Increase the material recycling rate by 2.3% year over year
	Toppan Decor Products Inc.	1,380	Increase the material recycling rate by 1.8% year over year	+6%	○	Increase the material recycling rate by 2.3% year over year
	Toppan Communication Products Co., Ltd.	903	Increase the material recycling rate by 1.8% year over year	-14.9%	×	Increase the material recycling rate by 2.3% year over year
	Toppan Inc.	883	Increase the material recycling rate by 1.8% year over year	+15.9%	○	Increase the material recycling rate by 2.3% year over year
	Toppan Infomedia Co., Ltd.	547	Increase the material recycling rate by 1.8% year over year	-1.0%	×	Increase the material recycling rate by 2.3% year over year
	Toppan Plastic Co., Ltd.	474	Increase the material recycling rate by 1.8% year over year	-6.5%	×	Increase the material recycling rate by 2.3% year over year
	Toppan TOMOEGAWA Optical Films Co., Ltd.	411	Increase the material recycling rate by 1.8% year over year	+7.8%	○	Increase the material recycling rate by 2.3% year over year
	Toppan Packaging Service Co., Ltd.	276	Increase the material recycling rate by 1.8% year over year	-59.6%	×	Increase the material recycling rate by 2.3% year over year
Waste dischargers	Toppan Electronics Products Co., Ltd.	104	Increase the material recycling rate by 1.8% year over year	-3.5%	×	Increase the material recycling rate by 2.3% year over year
	Toppan Techno Co., Ltd.	74	–	–	–	–
	Toppan Logistics Co., Ltd.	20	–	–	–	–
	Toppan Prosprint Co., Ltd.	20	–	–	–	–
	Toppan Media Printech Tokyo Co., Ltd.	9	–	–	–	–
	Kansai Bottling Co., Ltd.	6	–	–	–	–
	Toppan Cosmo, Inc.	0.4	–	–	–	–
	Toppan Graphic Communications Co., Ltd.	0.1	–	–	–	–

\*Targets for the discharge, discharge-reduction, recycling of plastic industrial waste (including plastics used in products), and other plastic circulation measures based on the Plastic Resource Circulation Act of Japan

### Values, Results, and Evaluation of Environmental Targets for Fiscal 2022

	Performance Target	Performance Indicator	Fiscal 2022			
			Target Value	Result	Achievement Rate	Evaluation
Contributing to resource circulation	Reduce final landfill waste disposal	Final landfill waste disposal	5,579 t	7,794 t	60.3%	C
	Circulate resources	Waste plastic material recycling rate	57.0%	56.5%	99.1%	B
Optimal water use	Set quantitative targets based on regional risks		Targets established			

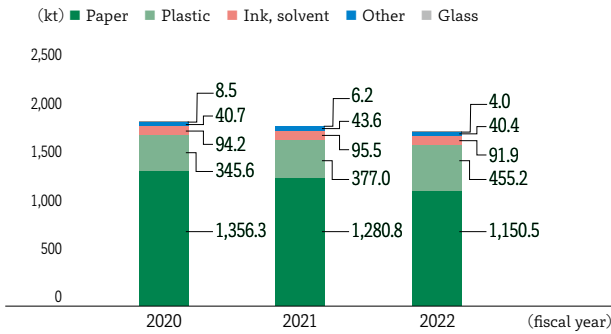
Evaluation criteria: S) Results achieved far surpass the targets (achievement rate [%]  $\geq$  105); A) Targets achieved (100  $\leq$  achievement rate [%] < 105); B) Activities fully carried out, but targets unachieved (70  $\leq$  achievement rate [%] < 100); C) Activities insufficient (achievement rate [%] < 70) Achievement rate: 200 – (values actually achieved / target values) x 100 [%]

## Associated Data

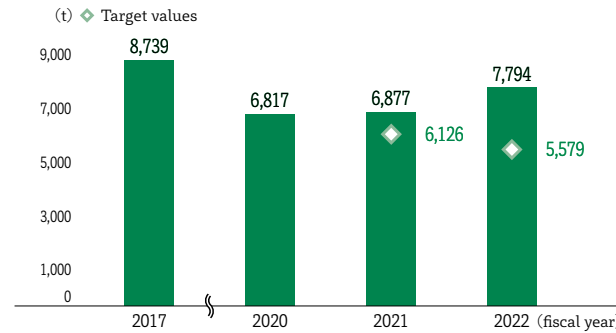
### Activity results, performance data

We evaluate and disclose Groupwide performance data, including that from overseas Group subsidiaries.

### Material Input ✔

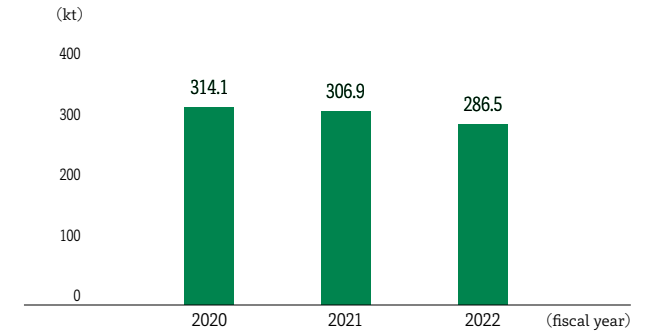


### Final Landfill Waste Disposal ✔

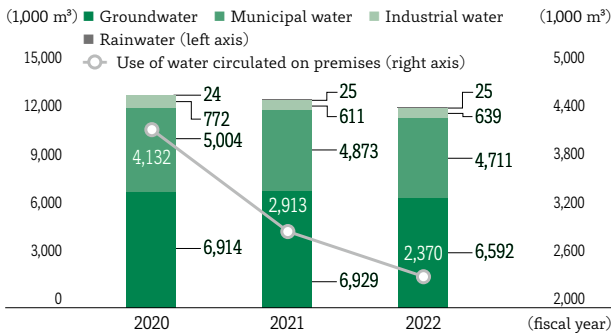


\*The fiscal 2017 result is adjusted based on the revised medium-and-long-term environmental target (see page 96). (The result before the revision was 7,407 t.)

### Waste Recycling ✔

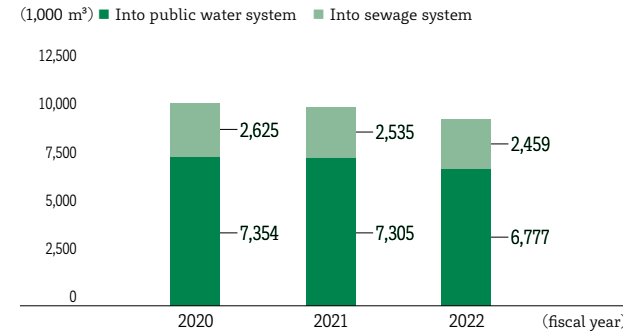


### Water Withdrawal ✔



\*Withdrawal at two Group sites in Russia is excluded from the fiscal 2022 result.

### Effluent Discharge ✔



\*Discharge at two Group sites in Russia is excluded from the fiscal 2022 result.

### Waste Plastic Material Recycling Rate

