

Environment

(FY) **

Greenhouse gas (GHG) emissions from business activities	Scope*	Unit	2020	2021	2022	2023	2024	
Scope1、Scope2	TOYOBO CO., LTD. Group companies in Japan	Thousand tonnes-CO ₂	689	767	752	750	536	
			131	77	81	74	215	
			820	844	833	824	751	
			54	58	67	69	80	
			873	902	900	894	831	
	Scope1* ²		TOYOBO CO., LTD. Group companies in Japan	588	646	641	638	463
				90	55	59	54	172
				678	702	700	692	635
				21	16	19	20	24
				699	718	720	712	659
	Scope2* ²		TOYOBO CO., LTD. Group companies in Japan	101	120	113	112	74
				40	22	22	20	42
				141	142	135	132	116
				33	41	49	49	56
				174	183	183	182	172
GHG emissions reduction rate (base: FY2014) KPI	Global	%	28.1	25.7	25.9	26.4	31.6	
GHG emissions reduction rate (base: FY2021)	Global	%		—	0.2	0.9	7.9	
GHG emissions intensity per unit of sales* ³	Global	Tonnes-CO ₂ /millions of yen	2.57	2.67	2.40	2.23	2.01	
Energy consumption	Global	GWh				2,937	2,810	
Renewable energy consumption	Global	GWh				0	0.9	

*1 Year Ended March 31.

*2 Calculation methods(fiscal2024)

In reference to the GHG Protocol, we include GHG emissions, calculated by converting the quantity of energy required to produce electricity or steam sold to other companies.

GHG emissions with non-energy origins are calculated for Toyobo (non-consolidated) only.

The factors shown below are used in the respective calculations.

■ CO2 emission factors for purchased gas:

(Domestic) Emission factors by gas supplier as listed in the Ministry of the Environment's "Emission Factors by Gas Supplier (for Calculating Greenhouse Gas Emissions of Specified Emitters) - FY2023 Supply Data" (In cases where the emission factor of a given gas supplier was unknown, the "national average factor" was used.)

■ CO2 emission factors for purchased electricity:

(Domestic) Adjusted emission factor for each electric power service provider listed in "Emission Factors by Electric Utility (for Use in Calculating Greenhouse Gas Emissions of Specific Emitters), FY2023 Results," Ministry of the Environment.

In cases where the emission factor of a given utility was unknown, the "national average factor" was used.)

(Overseas) Factors for 2020 listed by country "Emission Factors 2022" (2022), IEA

■ CO2 emission factors other than for purchased electricity:

"Greenhouse Gas Emissions Calculation and Reporting Manual (v5.0)" (2024),

Ministry of the Environment and Ministry of Economy, Trade and Industry (used for both domestic and overseas subjects)

*3 (Scope1 Global+Scope2 Global)/Consolidated Net sales

(FY)

Scope1	Scope*	Unit	2020	2021	2022	2023	2024
Energy-related GHG emissions	Global	Thousand tonnes-CO ₂	692.5	710.3	712.5	706.9	655.4
Non energy-related GHG emissions	Japan		5.8	6.3	6.1	3.2	0.7
			1.0	1.1	1.2	1.2	2.2
			0.1	0.4	0.7	0.5	0.5
			0.0	0.0	0.0	0.0	0.0
			0.1	0.2	0.2	0.2	0.3
			0.0	0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0	0.0

(FY)

GHG emissions throughout the value chain	Scope*	Unit	2020	2021	2022	2023	2024
Scope3* ⁴	Global	Thousand tonnes-CO ₂	-	2,714	3,415	5,290	5,499
1. Purchased goods and services				1,028	1,707	2,055	1,894
2. Capital goods				104	115	55	126
3. Fuel- and energy-related activities(not included in Scope 1 or Scope 2)				54	115	113	<input checked="" type="checkbox"/> 108
4. Upstream transportation and distribution				55	52	50	50
5. Waste generated in operations				35	49	53	45
6. Business travel				1	2	7	9
7. Employee commuting				5	5	6	5
8. Upstream leased assets				-	-	-	-
9. Downstream transportation and distribution				-	-	-	-
10. Processing of sold products				-	-	-	-
11. Use of sold products				1,288	1,209	2,745	<input checked="" type="checkbox"/> 2,944
12. End-of-life treatment of sold products				143	161	207	318
13. Downstream leased assets				-	-	-	-
14. Franchises				-	-	-	-
15. Investments	-	-	-	-			
Ratio of reduction in CO ₂ emissions per unit of transportation in relation to logistics (year on year)	TOYOBO CO., LTD.	%	△ 0.6	△ 0.6	△ 0.5	△ 5.3	△ 0.5

*4 Data fiscal 2020 are not publicly available due to a revision of the calculation method since fiscal 2021.

3 changed the calculation method from FY2021 (see IDEAv2.3 information).

8, 13, 14 are not applicable to the company.

9, the emissions up to the shipping destination are included in 4. Due to the varying processing conditions of the products at the destination, the transportation after the destination is excluded from the calculation as it is not possible to make a reasonable calculation.

10The downstream of the product destination has a large number of potential uses and it is not possible to determine all GHG profiles, so a reasonable calculation is not possible. Therefore, a reasonable calculation is not possible and is not disclosed.

12, the calculation method has been established and the calculation is carried out retrospectively to 2020.

15 is not disclosed due to very low emissions.

(FY)

Waste	Scope*	Unit	2020	2021	2022	2023	2024	
Amount of waste generation	Japan	Thousand tonnes	99	110	109	106	98	
	Overseas		6	6	11	16	15	
	Global		105	116	120	122	113	
Amount of recovered and reused waste	Global		-	-	-	4	3	
Amount of waste emission	Japan		93	104	103	102	96	
	Overseas		6	6	11	16	14	
	Global*5		99	109	114	118	111	
Amount recycled externally	Japan		85	99	98	97	90	
	Overseas		5	6	11	16	7	
	Global		90	104	109	112	97	
Landfill	Japan		0.5	0.3	0.2	0.4	0.5	
	Overseas		0.9	0.2	0.2	0.2	1.8	
	Global		1.4	0.5	0.5	0.6	2.3	
Landfill rate	Japan		%	0.52	0.23	0.22	0.38	0.52
	Overseas			14.57	3.42	2.21	1.53	12.59
	Global	1.31		0.39	0.40	0.53	2.08	

*5 Excluding the amount of construction waste from affiliated companies

(FY)

Water intake		Scope*	Unit	2020	2021	2022	2023	2024
Total water intake	Japan	Japan	Thousand m ³	89,139	83,411	84,494	84,714	84,994
		Overseas		1,410	1,061	1,430	1,482	1,821
		Global		90,549	84,472	85,924	86,197	86,815
	Tap water	Japan		422	439	452	442	452
		Overseas		141	120	170	509	599
		Global		563	559	622	951	1,051
	Groundwater	Japan		32,504	28,783	29,708	28,841	29,040
		Overseas		669	450	565	684	662
		Global		33,173	29,233	30,273	29,526	29,702
	Industrial water	Japan		2,564	2,551	2,700	2,894	2,550
		Overseas		546	452	639	289	560
		Global		3,110	3,003	3,339	3,183	3,110
	Seawater	Japan		0	0	0	0	0
		Overseas		6	0	0	0	0
		Global		6	0	0	0	0
	River water	Japan		53,650	51,638	51,634	52,537	52,952
		Overseas		45	45	0	0	0
		Global		53,695	51,683	51,634	52,537	52,952
	Other	Japan		0	0	0	0	0
		Overseas		46	38	56	0	0
		Global		46	38	56	0	0
Recycled water	Japan	66,268	59,182	57,527	53,440	52,646		
	Overseas	0	0	0	46	121		
	Global	66,268	59,182	57,527	53,486	52,768		

(FY)

water consumption		Scope*	Unit	2020	2021	2022	2023	2024
Total water consumption	Japan	Japan	Thousand m ³	4,281	3,143	1,883	2,829	1,519
		Overseas		518	424	470	458	628
		Global		4,799	3,568	2,353	3,287	2,147

(FY)

Water discharge		Scope*	Unit	2020	2021	2022	2023	2024
Total water discharge	Japan	Japan	Thousand m ³	84,858	80,267	82,611	81,885	83,474
		Overseas		892	636	960	1,024	1,193
		Global		85,750	80,904	83,571	82,909	84,667
	Sewage system	Japan		296	324	377	164	139
		Overseas		67	76	167	580	764
		Global		363	400	544	744	903
	Freshwater	Japan		36,452	35,473	35,968	34,132	35,067
		Overseas		773	519	734	440	353
		Global		37,225	35,992	36,702	34,572	35,420
	Seawater	Japan		45,216	44,020	46,064	47,384	48,084
		Overseas		6	4	3	4	5
		Global		45,222	44,024	46,067	47,388	48,089
	Groundwater	Japan		—	0	0	0	0
		Overseas		—	0	0	0	0
		Global		—	0	0	0	0
	Other	Japan		2,894	450	202	205	184
		Overseas		46	38	56	0	71
		Global		2,940	488	258	205	255

(FY)

PRTR Substances		Scope*	Unit	2020	2021	2022	2023	2024*6	
Emissions	Japan	Japan	Tonnes	151	221	197	108	771	
				Emissions to atmosphere	136	200	166	94	53
				Emissions to rivers and other waterways	18	21	32	14	718
				Emissions to soil	0	0	0	0	0
Transfer volume	Japan	Japan	Tonnes	1,179	1,237	2,302	2,668	2,196	
				Transfer to public sewage system	0	0	0	1	1
				Transfer to waste	1,179	1,237	2,302	2,667	2,195

*6 Based on the revision of the Cabinet Order in 2021, the chemical substances subject to calculation have been changed since FY2024.

(FY)

Air emissions	Scope*	Unit	2020	2021	2022	2023	2024
VOC emissions	Japan	Tonnes	136	200	166	94	53
VOC emissions reduction rate (base: FY2015) KPI		%	42	15	29	60	78
NOx emissions		Tonnes	922	1,251	1,077	1,361	1,147
SOx emissions		Tonnes	959	968	907	1,033	755

(FY)

Effluents	Scope*	Unit	2020	2021	2022	2023	2024
CODemissions	Japan	Tonnes	1,009	860	1,022	1,031	854
Total nitrogen emissions			161	156	200	187	203
Total phosphorus emissions			25	37	35	35	72

(FY)

Visualization of Environmental Contribution	Scope*	Unit	2020	2021	2022	2023	2024*7
ECO-PARTNER SYSTEM® products sales	TOYOBO CO., LTD.	Billion yen	60.6	59.0	81.8	89.2	84.3
ECO-PARTNER SYSTEM® products sales ratio KPI		%	30.4	29.9	33.8	35.2	31.2

*7 FY2024 totals include TOYOBO CO., LTD., and TOYOBO MC Corporation.

(FY)

Environmental Accounting	Scope*	Unit	2020	2021	2022	2023	2024
Environmental preservation costs (investment)	TOYOBO CO., LTD.	Billion yen	1.6	0.6	1.5	0.4	3.9
Environmental preservation costs (expenditure)			2.3	2.5	2.9	2.9	5.8
Economic benefits of environmental preservation			2.0	2.0	3.0	1.7	2.0

(FY)

Compliance with Environmental Laws and Regulations	Scope*	Unit	2020	2021	2022	2023	2024
Serious environment-related accidents	Japan	Cases	0	0	0	0	0
Serious violations to environmental laws and regulations			0	0	0	0	0

* Scope

TOYOBO CO., LTD.: TOYOBO CO., LTD. only
 Group companies in Japan: domestic consolidated subsidiaries
 Japan: TOYOBO CO., LTD. and Group companies in Japan
 Overseas: Overseas consolidated subsidiaries
 Global: Whole Group in Japan and overseas

Indicators for fiscal 2024 with this icon are externally assured by KPMG AZSA Sustainability Co., Ltd.

—: No data