

Environment

☑: Assured by an independent assurance provider
(FY)

Greenhouse gas (GHG) emissions from		Scope*	Unit	2019	2020	2021	2022	2023
Scope1、Scope2	Scope1	TOYOBO CO., LTD.	Thousand tonnes-CO ₂	708	689	767	752	750
		Group companies in Japan		136	131	77	81	74
		Japan		844	820	844	833	824
		Overseas		60	54	58	67	69
		Global		904	873	902	900	☑ 894
	Scope1	TOYOBO CO., LTD.		591	588	646	641	638
		Group companies in Japan		99	90	55	59	54
		Japan		690	678	702	700	692
		Overseas		18	21	16	19	20
		Global		709	699	718	720	☑ 712
	Scope2	TOYOBO CO., LTD.		117	101	120	113	112
		Group companies in Japan		37	40	22	22	20
		Japan		154	141	142	135	132
		Overseas		42	33	41	49	49
		Global		196	174	183	183	☑ 182
GHG emissions reduction rate (base: FY2014) KPI		Global	%	26	28	26	26	26
GHG emissions intensity per unit of sales		Global	Tonnes-CO ₂ /million yen	2.7	2.6	2.7	2.4	2.2
Energy consumption		Global	TJ GWh	12,221	11,942	13,166	13,216	13,048 ☑ 2,937

(FY)

Scope1		Scope*	Unit	2019	2020	2021	2022	2023
Energy-related GHG emissions	CO ₂	Global	Thousand tonnes-CO ₂	699.7	692.5	710.3	712.5	706.9
Non energy-related GHG emissions	CO ₂	TOYOBO CO., LTD.		7.7	5.8	6.3	6.1	3.2
	N ₂ O			1.1	1.0	1.1	1.2	1.2
	HFC			0.4	0.1	0.4	0.7	0.5
	PFC			0.0	0.0	0.0	0.0	0.0
	CH ₄			0.1	0.1	0.2	0.2	0.2
	SF ₆			0.0	0.0	0.0	0.0	0.0
	NF ₃	—		0.0	0.0	0.0	0.0	0.0

(FY)

GHG emissions throughout the value chain		Scope*	Unit	2019	2020	2021	2022	2023
Scope3	1. Purchased goods and services 2. Capital goods 3. Fuel- and energy-related activities(not included in Scope 1 or Scope 2) 4. Upstream transportation and distribution 5. Waste generated in operations 6. Business travel 7. Employee commuting 8. Upstream leased assets 9. Downstream transportation and distribution 10. Processing of sold products 11. Use of sold products 12. End-of-life treatment of sold products 13. Downstream leased assets 14. Franchises 15. Investments	Global	Thousand tonnes-CO ₂	—**		2,714	3,415	5,290
						1,028	1,707	2,055
						104	115	55
						54	115	☑ 113
						55	52	50
						35	49	53
						1	2	7
						5	5	6
						—**	—**	—**
						—**	—**	—**
						—**	—**	—**
						1,288	1,209	☑ 2,745
						143	161	207
						—**	—**	—**
						—**	—**	—**
—**	—**	—**						
Ratio of reduction in CO ₂ emissions per unit of transportation in relation to logistics (year on year) KPI		TOYOBO CO., LTD.	%	—	△ 0.6	△ 0.6	△ 0.5	△ 5.3

** Data from fiscal 2018 through 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 IDEA2.3 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	2019	2020	2021	2022	2023	
Amount of waste generation	Japan	Thousand tonnes	108	99	110	109	106	
	Overseas		4	6	6	11	16	
	Global		113	105	116	120	122	
Amount of waste emission	Japan		99	93	104	103	102	
	Overseas		4	6	6	11	16	
	Global***		103	99	109	114	118	
Amount recycled externally	Japan		93	85	99	98	97	
	Overseas		3	5	6	11	16	
	Global		96	90	104	109	112	
Landfill	Japan		0.6	0.5	0.3	0.2	0.4	
	Overseas		0.0	0.9	0.2	0.2	0.2	
	Global		0.6	1.4	0.5	0.5	0.6	
Landfill rate KPI	Japan		%	0.6	0.5	0.2	0.2	0.4
	Overseas		0.0	14.6	3.4	2.2	1.5	
	Global		0.6	1.3	0.4	0.4	0.5	

*** Excluding the amount of construction waste from affiliated companies

(FY)

Water intake	Scope*	Unit	2019	2020	2021	2022	2023	
Total water intake	Japan	Thousand m ³	86,406	89,139	83,411	84,494	84,714	
	Overseas		1,162	1,410	1,061	1,430	1,482	
	Global		87,569	90,549	84,472	85,924	86,197	
	Tap water		Japan	427	422	439	452	442
			Overseas	—	141	120	170	509
			Global	—	563	559	622	951
	Groundwater		Japan	31,376	32,504	28,783	29,708	28,841
			Overseas	—	669	450	565	684
			Global	—	33,173	29,233	30,273	29,526
	Industrial water		Japan	2,422	2,564	2,551	2,700	2,894
			Overseas	—	546	452	639	289
			Global	—	3,110	3,003	3,339	3,183
	Seawater		Japan	0	0	0	0	0
			Overseas	—	6	0	0	0
			Global	—	6	0	0	0
	River water		Japan	52,181	53,650	51,638	51,634	52,537
			Overseas	—	45	45	0	0
			Global	—	53,695	51,683	51,634	52,537
	Other		Japan	0	0	0	0	0
			Overseas	—	46	38	56	0
			Global	—	46	38	56	0
Recycled water	Japan	60,924	66,268	59,182	57,527	53,440		
	Overseas	—	0	0	0	46		
	Global	—	66,268	59,182	57,527	53,486		

(FY)

Water discharge	Scope*	Unit	2019	2020	2021	2022	2023	
Total water discharge	Japan	Thousand m ³	82,775	84,858	80,267	82,611	81,885	
	Overseas		1,055	892	636	960	1,024	
	Global		83,830	85,750	80,904	83,571	82,909	
	Sewage system		Japan	355	296	324	377	164
			Overseas	154	67	76	167	580
			Global	509	363	400	544	744
	Freshwater		Japan	36,853	36,452	35,473	35,968	34,132
			Overseas	901	773	519	734	440
			Global	37,754	37,225	35,992	36,702	34,572
	Seawater		Japan	44,269	45,216	44,020	46,064	47,384
			Overseas	0	6	4	3	4
			Global	44,269	45,222	44,024	46,067	47,388
	Groundwater		Japan	—	—	0	0	0
			Overseas	—	—	0	0	0
			Global	—	—	0	0	0
	Other		Japan	1,298	2,894	450	202	205
			Overseas	0	46	38	56	0
			Global	1,298	2,940	488	258	205

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PRTR Substances		Scope*	Unit	2019	2020	2021	2022	2023
Emissions		Japan	Tonnes	188	151	221	197	108
	Emissions to atmosphere			176	136	200	166	94
	Emissions to rivers and other waterways KPI			12	18	21	32	14
	Emissions to soil			0	0	0	0	0
Transfer volume		Japan	Tonnes	1,153	1,179	1,237	2,302	2,668
	Transfer to public sewage system			0	0	0	0	1
	Transfer to waste			1,153	1,179	1,237	2,302	2,667

(FY)

Air emissions		Scope*	Unit	2019	2020	2021	2022	2023
VOC emissions KPI	Japan	Tonnes	176	136	200	166	94	
NOx emissions			883	922	1,251	1,077	1,361	
SOx emissions			1,018	959	968	907	1,033	

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Effluents		Scope*	Unit	2019	2020	2021	2022	2023
COD, BOD emissions	Japan	Tonnes	972	1,009	860	1,022	1,031	
Total nitrogen emissions			188	161	156	200	187	
Total phosphorus emissions			25	25	37	35	35	

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Visualization of Environmental Contribution		Scope*	Unit	2019	2020	2021	2022	2023
ECO-PARTNER SYSTEM [®] products sales	TOYOBO CO., LTD.	%	Billion yen	55.2	60.6	59.0	81.8	89.2
ECO-PARTNER SYSTEM [®] products sales ratio KPI			27.7	30.4	29.9	33.8	35.2	

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Environmental Accounting		Scope*	Unit	2019	2020	2021	2022	2023
Environmental preservation costs (investment)	TOYOBO CO., LTD.	Billion yen	1.1	1.6	0.6	1.5	0.4	
Environmental preservation costs (expenditure)			2.3	2.3	2.5	2.9	2.9	
Economic benefits of environmental preservation			2.6	2.0	2.0	3.0	1.7	

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Compliance with Environmental Laws and Regulations		Scope*	Unit	2019	2020	2021	2022	2023
Environment-related accidents	Global	Cases	0	0	0	0	0	
Violations to environmental laws and regulations		Cases	0	0	0	0	0	
Total fine		Yen	0	0	0	0	0	

* Scope

TOYOBO CO., LTD.: TOYOBO CO., LTD. only

Group companies in Japan : TOYOBO CO., LTD. and domestic subsidiaries

Japan: TOYOBO CO., LTD. and domestic subsidiaries

Overseas: Overseas consolidated subsidiaries

Global: Whole Group in Japan and overseas

—: No data