

Environment

(FY)

Greenhouse gas (GHG) emissions from business activities		Scope*	Unit	2018	2019	2020	2021	2022
Scope1 and Scope2	Scope1 and Scope2	Japan	Thousand tonnes-CO ₂	901	844	820	844	833
		Overseas		63	60	54	58	67
		Global		964	904	873	902	900
	Scope1	Japan		712	690	678	702	698
		Overseas		21	18	21	16	20
		Global		733	709	699	718	718
	Scope2	Japan		189	154	141	142	135
		Overseas		42	42	33	41	48
		Global		231	196	174	184	182
	GHG emissions reduction rate (base: FY2014) KPI			Global	%	21	26	28
GHG emissions intensity per unit of sales		Global	Tonnes-CO ₂ /million yen	2.9	2.7	2.6	2.7	2.4
Energy consumption		Global	TJ	11,840	12,221	11,942	13,166	13,216

(FY)

Scope1		Scope*	Unit	2018	2019	2020	2021	2022
Energy-related GHG emissions	CO ₂	Global	Thousand tonnes-CO ₂	716.5	699.7	692.5	710.3	710.5
Non energy-related GHG emissions	CO ₂	TOYOBO CO., LTD.		15.2	7.7	5.8	6.3	6.1
	N ₂ O			1.2	1.1	1.0	1.1	1.2
	HFC			0.1	0.4	0.1	0.4	0.7
	PFC			0.0	0.0	0.0	0.0	0.0
	CH ₄			0.2	0.1	0.1	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	2018	2019	2020	2021	2022
Scope3**		Global	Thousand tonnes-CO ₂	—	—	—	2,714	3,411
	1. Purchased goods and services			—	—	—	1,028	1,707
	2. Capital goods			—	—	—	104	115
	3. Fuel- and energy-related activities(not included in Scope 1 or Scope 2)			—	—	—	54	112
	4. Upstream transportation and distribution			—	—	—	55	52
	5. Waste generated in operations			—	—	—	35	49
	6. Business travel			—	—	—	1	2
	7. Employee commuting			—	—	—	5	5
	8. Upstream leased assets			—	—	—	—	—
	9. Downstream transportation and distribution			—	—	—	—	—
	10. Processing of sold products			—	—	—	—	—
	11. Use of sold products			—	—	—	1,288	1,209
	12. End-of-life treatment of sold products			—	—	—	143	161
	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) KPI		TOYOBO CO., LTD.	%	—	—	△ 0.6	△ 0.6	△ 0.5

** Data from fiscal 2018 through fiscal 2020 are not publicly available due to a revision of the calculation method since fiscal 2021.

Category 3: In FY2022, we referred to the IDEA v.2.3 by the National Institute of Advanced Industrial Science and Technology.

Categories 8, 13, and 14: Not applicable to the company.

Category 9: The emissions associated with the transportation of sold products fall within Category 4. Because our products are in various states of processing at the shipping destination, each of which has a different GHG emissions profile for transportation after the destination, we are unable to reasonably estimate the downstream emissions and exclude this category from the scope of calculation.

Category 10: Not disclosed because it is impossible to determine all GHG profiles due to the large number of potential downstream applications beyond the destination of product shipments, we are unable to reasonably estimate the downstream emissions.

Category 12: With the establishment of the calculation method, the relevant data is calculated retroactively to FY2021.

Category 15: Not disclosed due to negligibly small.

(FY)

Waste	Scope*	Unit	2018	2019	2020	2021	2022
Amount of waste generation	Japan	Thousand tonnes	110	108	99	110	109
	Overseas		6	4	6	6	11
	Global		116	113	105	116	120
Amount of waste emission	Japan		95	99	93	104	103
	Overseas		5	4	6	6	11
	Global***		99	103	99	109	114
Amount recycled externally	Japan		90	93	85	99	98
	Overseas		3	3	5	6	11
	Global		93	96	90	104	109
Landfill	Japan	0.6	0.6	0.5	0.3	0.2	
	Overseas	0.0	0.0	0.9	0.2	0.2	
	Global	0.6	0.6	1.4	0.5	0.5	
Landfill rate	Japan	%	0.6	0.6	0.5	0.2	0.2
	Overseas		0.0	0.0	14.6	3.4	2.2
	Global		0.6	0.6	1.3	0.4	0.4

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

(FY)

Water intake	Scope*	Unit	2018	2019	2020	2021	2022	
Total water intake	Japan	Thousand m ³	90,769	86,406	89,139	83,411	84,494	
	Overseas		1,326	1,162	1,410	1,061	1,430	
	Global		92,095	87,569	90,549	84,472	85,924	
	Tap water		Japan	520	427	422	439	452
			Overseas	—	—	141	120	170
			Global	—	—	563	559	622
	Groundwater		Japan	33,228	31,376	32,504	28,783	29,708
			Overseas	—	—	669	450	565
			Global	—	—	33,173	29,233	30,273
	Industrial water		Japan	2,036	2,422	2,564	2,551	2,700
			Overseas	—	—	546	452	639
			Global	—	—	3,110	3,003	3,339
	Seawater		Japan	0	0	0	0	0
			Overseas	—	—	6	0	0
			Global	—	—	6	0	0
	River water		Japan	54,980	52,181	53,650	51,638	51,634
			Overseas	—	—	45	45	0
			Global	—	—	53,695	51,683	51,634
	Other		Japan	0	0	0	0	0
			Overseas	—	—	46	38	56
			Global	—	—	46	38	56
Recycled water	Japan	60,277	60,924	66,268	59,182	57,527		
	Overseas	—	—	0	0	0		
	Global	—	—	66,268	59,182	57,527		

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Water discharge	Scope*	Unit	2018	2019	2020	2021	2022	
Total water discharge	Japan	Thousand m ³	87,763	82,775	84,858	80,267	82,611	
	Overseas		1,261	1,055	892	636	960	
	Global		89,024	83,830	85,750	80,904	83,571	
	Sewage system		Japan	262	355	296	324	377
			Overseas	153	154	67	76	167
			Global	415	509	363	400	544
	Freshwater		Japan	41,320	36,853	36,452	35,473	35,968
			Overseas	1,108	901	773	519	734
			Global	42,428	37,754	37,225	35,992	36,702
	Seawater		Japan	45,085	44,269	45,216	44,020	46,064
			Overseas	0	0	6	4	3
			Global	45,085	44,269	45,222	44,024	46,067
	Groundwater		Japan	—	—	—	0	0
			Overseas	—	—	—	0	0
			Global	—	—	—	0	0
	Other		Japan	1,096	1,298	2,894	450	202
			Overseas	0	0	46	38	56
			Global	1,096	1,298	2,940	488	258

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PRTR Substances	Scope*	Unit	2018	2019	2020	2021	2022
Emissions	Japan	Tonnes	213	188	151	221	197
Emissions to atmosphere			193	176	136	200	166
Emissions to rivers and other waterways KPI			20	12	18	21	32
Emissions to soil			0	0	0	0	0
Transfer volume			1,151	1,153	1,179	1,237	2,302
Transfer to public sewage system	0	0	0	0	0		
Transfer to waste	1,151	1,153	1,179	1,237	2,302		

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Air emissions	Scope*	Unit	2018	2019	2020	2021	2022
VOC emissions KPI	Japan	Tonnes	193	176	136	200	166
NOx emissions			969	883	922	1,251	1,077
SOx emissions			988	1,018	959	968	907
Soot and dust emissions			—	—	—	—	—
Fluorocarbons emissions	TOYOBO CO., LTD.	Tonnes-CO ₂	239	460	733	452	784

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Effluents	Scope*	Unit	2018	2019	2020	2021	2022
COD, BOD emissions	Japan	Tonnes	919	972	1,009	860	1,022
Total nitrogen emissions			199	188	161	156	200
Total phosphorus emissions			19	25	25	37	35

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Visualization of Environmental Contribution	Scope*	Unit	2018	2019	2020	2021	2022
ECO-PARTNER SYSTEM® products sales	TOYOBO CO., LTD.	Billion yen	56.3	55.2	60.6	59.0	81.8
ECO-PARTNER SYSTEM® products sales ratio KPI		%	27.8	27.7	30.4	29.9	33.8

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Environmental Accounting	Scope*	Unit	2018	2019	2020	2021	2022
Environmental preservation costs (investment)	TOYOBO CO., LTD.	Billion yen	0.7	1.1	1.6	0.6	1.5
Environmental preservation costs (expenditure)			1.5	2.3	2.3	2.5	2.9
Economic benefits of environmental preservation			1.5	2.6	2.0	2.0	3.0

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Compliance with Environmental Laws and Regulations	Scope*	Unit	2018	2019	2020	2021	2022
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

Japan: TOYOBO CO., LTD. and domestic consolidated subsidiaries

Overseas: Overseas consolidated subsidiaries

Global: Whole Group in Japan and overseas

—: No data