Planet

Planet priority measures in the Sustainability Medium-Term Plan

			Benchmarks	2024	2026
Planet	GHG emissions	Scope1＋2	Year 2019：3.2 million tons-CO_2e	No increase in emissions compared to 2019	
		Scope3	Year 2019：0.9 million tons-CO_2e (Japan)	•Target the entire Group and identify the category dominates for more than two-thirds of emission •In fiscal 2023, formulate numerical reduction targets for fiscal 2024 and fiscal 2026	

Result in 2022 and Target in 2023

			Result in 2022	Evaluation in 2022	Target in 2023
Planet	GHG emissions	Scope1＋2	2,896 thousand tons-CO_2e	target achieved (3,230thousand ton-CO_2e or less)	No increase in emissions compared to 2019
		Scope3	•Target the entire Group and identify the category dominates for more than two-thirds of emission •In fiscal 2023, formulate numerical reduction targets for fiscal 2024 and fiscal 2026		

Environmental Management
Global Warming Prevention
Reduction of Environmental Load
Environmental Accounting
Environmental Data
Sustainability Medium-term Plan for Planet

Environmental Accounting

●Total investments for the current period: 29.0 billion JPY
●Total research and development expenses for the current period: 13.9 billion JPY

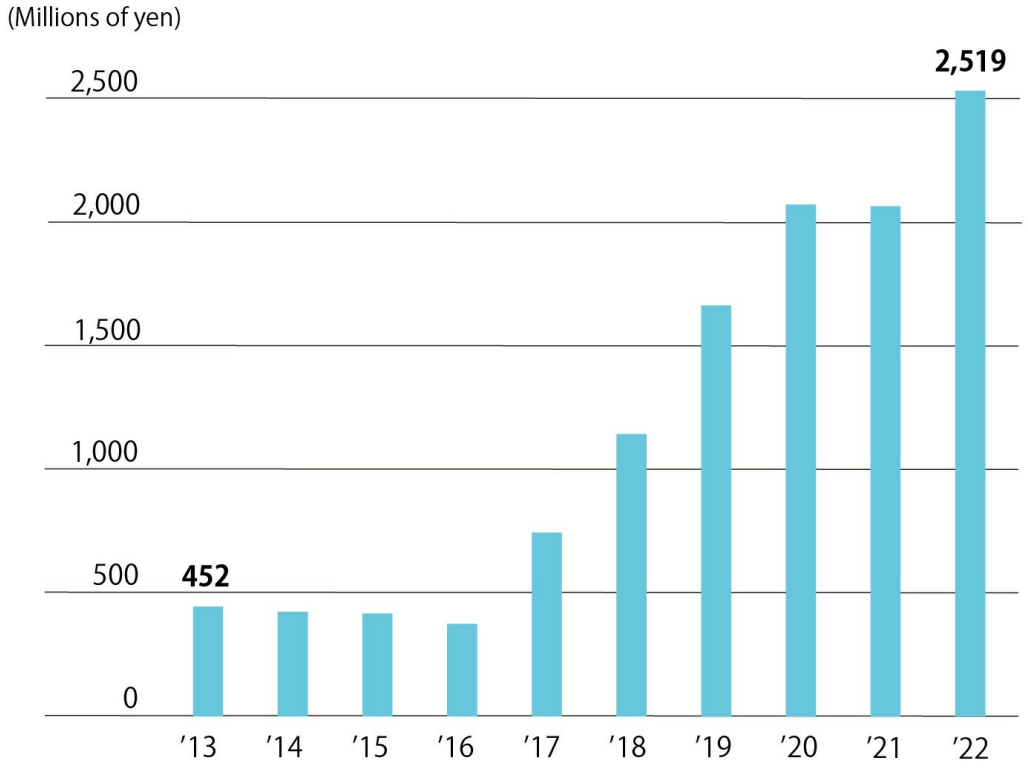
Costs for Environmental Conservation (Millions of yen)

Category		Investments	Cost	Principal activities
Costs within the production sites	Pollution prevention costs	1,528	1,947	Operating cost of environmental facilities, measures to prevent emissions of toxic chemical substances
	Global environmental conservation costs	30	20	Cost of energy conservation activities
	Resource recycling costs	679	683	Recycling costs and waste processing costs
	Total	**2,237**	**2,650**	
Upstream and downstream costs		-	126	Recycling and reuse of packaging materials, improvement of container packaging

Category	Investments	Cost	Principal activities
Administrative costs	60	147	ISO 14001, environmental measurements, environmental education
Research and development costs	223	117	Development of environmentally friendly products
Social activity costs	-	0	Afforestation, beautification, provision of environmental information to host community residents
Environmental damage costs	-	-	
Total	**2,519**	**3,040**	

Note: Environmental damage costs are included in pollution prevention costs.

Trends in Capital Expenditures for Environmental Investments



【Notes】As a result of the change in months in each fiscal year, the environmental data and information contained in this report including graphs are as follows.
・Before fiscal 2013: Actuals in 12 months from April to March of the following year
・Fiscal 2014: Actuals for 9 months from April to December + Actuals for January to March 2014 (or estimated value) [Partially overlaps with fiscal 2013]
・After fiscal 2015 : Actuals for 12 months from January to December

Environmental Conservation Effects (Kuraray)

Category		Unit	FY2020	FY2021(1)	FY2022(2)	Change [(2)-(1)]
	SOx emissions	Tons	280	395	338	▲57
	NOx emissions	Tons	1,623	1,662	1,497	▲165

Category		Unit	FY2020	FY2021(1)	FY2022(2)	Change [(2)-(1)]
Pollution prevention activities	Soot and dust emissions	Tons	32	31	44	13
	PRTR substance emissions	Tons	719	862	774	▲88
	COD load	Tons	516	482	468	▲14
Global environment conservation activities	GHG emissions	thousand tons-CO_2e	1,221	1,331	1,227	▲104
	Energy consumption	1,000 kL (crude oil equivalent)	418	447	425	▲22
Resource recycling activities	Externally disposed industrial waste without effective use	Tons	1,772	1,851	1,960	109
	Rate of effective use of waste	%	97.2	97.0	96.3	▲0.7
	Water resource usage*	million m^3	71	70	67	▲ 3
	Total discharge of wastewater*	million m^3	65	64	62	▲ 2

* Excluding seawater

For detailed environmental data, please visit the site below.

> Environmental data

(1) Basis for environmental accounting calculations

- Reporting period: January 1, 2022 to December 31, 2022
- Scope covered: Kuraray

(2) Environmental conservation cost calculation criteria

- Depreciation: Straight-line method
- Standard for allocating costs: In principle, 100% of costs are allocated to individual environmental conservation items. However, a portion of costs is allocated on a pro-rata basis.

(3) Standard for calculating environmental conservation effects

- Effects are calculated in a simple comparison with the total environmental load of the previous fiscal year and are not adjusted for production volume.

(4) Standard for calculating economic effects (benefits) of environmental conservation measures.

- Although material effects such as income from recycling are known, benefits are deducted from environmental conservation costs.