Nature-Related Dependencies and Impacts of the Oji Group

The Oji Group manages dependenies and impacts using the metrics listed in the table below.

Category	Indicators	Interface with Nature (Dependencies /Impacts)	Metrics		2020	2021	2022	2023	2024	TNFD Metrics No. *1
Climate change	GHG emissions and absorption	Impacts	Scope 1 emissions	kt-CO_2e	6,267	6,398	6,399	5,890	5,791	
		Impacts	Scope 2 emissions	kt-CO_2e	1,193	1,208	1,071	959	1,117	
		Impacts	Scope 3 emissions	kt-CO_2e	4,924	5,573	5,264	5,336	6,089	
		Impacts	Net increment in carbon stocks by forests owned and managed (five year average)	kt-CO_2	583	1,003	919	1,628	1,752	FP.AX.1.0
		Impacts	Carbon stocks by forests owned and managed	kt-CO_2	115,362	119,415	122,453	126,835	142,017	FP.AX.1.0
Land/fresh water/ ocean-use change	Total spatial footprint	Dependencies/Impacts	Total area of forests owned and managed	ha	569	573	603	600	636	C1.0
		Dependencies/Impacts	Area of production forests	ha	441	432	455	451	472	C1.1, FP.A.1.0
		Dependencies/Impacts	Area of conservation forests	ha	129	141	148	149	164	C1.1, FP.A24.0
		Impacts	Forest certification ratio of company-owned forests*2	%	95	95	95	98	98	C1.1, FP.A22.0
Pollution/ pollution removal	Pollutants released to soil split by type	Impacts	Amount of pesticides from forestry operations*3	t	N.D.	N.D.	N.D.	785	3,680	C2.0
		Impacts	Amount of pesticides classified as highly hazardous by the FAO and WHO	t	N.D.	N.D.	N.D.	0.04	0	C2.0
		Impacts	Amount of nitrogen fertilizer used	t	N.D.	N.D.	N.D.	1,440	1,539	C2.0
		Impacts	Amount of phosphorus fertilizer used	t	N.D.	N.D.	N.D.	1,124	1,174	C2.0
	Wastewater discharged	Impacts	Amount of total water discharged	kilo-m^3	671,965	675,849	672,780	672,275	651,452	C2.1
		Impacts	Discharged to rivers, lakes, and marshes	kilo-m^3	272,294	269,416	255,872	244,025	298,746	C2.1
		Impacts	Discharged into oceans	kilo-m^3	322,542	326,949	321,287	319,470	311,015	C2.1
		Impacts	Discharged into groundwater	kilo-m^3	14	12	22	21	23	C2.1
		Impacts	Discharged into the sewer	kilo-m^3	77,115	79,471	95,599	108,759	41,668	C2.1
		Impacts	AOX*4	kg/t-pulp	0.09	0.08	0.08	0.07	0.08	C2.1
		Impacts	Nitrogen*5	t	N.D.	N.D.	N.D.	1,169	1,002	C2.1
		Impacts	Phosphorus*5	t	N.D.	N.D.	N.D.	242	158	C2.1
		Impacts	COD*5	t	36,386	39,072	37,390	35,477	35,220	C2.1
		Impacts	Suspended solid (SS) *5	t	15,095	15,161	13,932	12,771	13,205	C2.1
	Waste generation and disposal	Impacts	Non-hazardous waste generated	t	2,673,094	2,713,914	2,902,187	2,940,059	3,051,538	C2.2
		Impacts	Incinerated*6	t	N.D.	N.D.	N.D.	112,683	115,333	C2.2
		Impacts	Landfilled	t	N.D.	N.D.	N.D.	235,293	184,244	C2.2
		Impacts	Other waste disposal	t	N.D.	N.D.	N.D.	6,581	29,993	C2.2
		Impacts	Recycled	t	N.D.	N.D.	N.D.	72,780	73,770	C2.2
		Impacts	Hazardous waste generated	t	59,906	58,086	86,813	76,867	65,420	C2.2
		Impacts	Incinerated*6	t	N.D.	N.D.	N.D.	73,729	61,101	C2.2
		Impacts	Landfilled	t	N.D.	N.D.	N.D.	5,641	574	C2.2
		Impacts	Other waste disposal	t	N.D.	N.D.	N.D.	129	622	C2.2
		Impacts	Recycled	t	N.D.	N.D.	N.D.	2,808	3,298	C2.2
	Plastic pollution	Impacts	Total plastic used*7	t	N.D.	N.D.	N.D.	30,433	34,557	C2.3
	Non-GHG air pollutants	Impacts	Soot and dust*5	t	3,148	3,143	2,800	2,958	2,914	C2.4
		Impacts	SO_x*5	t	5,529	5,424	5,955	5,052	5,358	C2.4
		Impacts	NO_x*5	t	10,958	12,385	11,595	12,291	12,220	C2.4
		Impacts	VOC*8	t	227	232	182	159	142	C2.4
		Impacts	Mercury*9	t	N.D.	N.D.	N.D.	0.030	0.022	C2.4
Resource use and replenishment	Water intake from high water risk areas*10	Dependencies/Impacts	Water intake and consumption from high water risk areas	kilo-m^3	N.D.	1,411	1,692	1,475	1,703	C3.0
		Dependencies/Impacts	Water intake from water supply and industrial water	kilo-m^3	N.D.	250	226	255	315	C3.0
		Dependencies/Impacts	Water intake from rivers	kilo-m^3	N.D.	1,066	1,356	1,054	1,262	C3.0
		Dependencies/Impacts	Others	kilo-m^3	N.D.	95	111	167	126	C3.0
		Dependencies/Impacts	Water consumption from high water risk areas	kilo-m^3	N.D.	103	260	354	397	C3.0
	Quantity of high-risk natural commodities sourced from land/ ocean/freshwater	Dependencies/Impacts	Wood chip procurement	kilo-BDT	3,662	4,429	4,622	4,453	4,256	C3.1, FP.A3.1
		Dependencies/Impacts	Market pulp procurement	kilo-ADT	134	162	183	146	145	C3.1, FP.A3.1
		Impacts	Wood raw materials confirmed to have been produced under sustainable forest management based on international certification systems.	%	100	100	100	100	100	C3.1, FP.A22.1
		Impacts	Traceability implementation	%	100	100	100	100	100	C3.1, FP.A22.1

*1 Identification codes for the metrics recommended by TNFD. FP: Forestry and Paper sector, C: Core global metrics, which all organisations should disclose, A: Additional metrics, which recommended for disclosure in specific sectors or circumstances

*2 Overseas: Area ratio in company-owned production forests. Japan: Area ratio in company-owned forestsexcluding shared forests.

*3 The figures for FY2023 have been revised due to an expansion of the aggregation boundary. The increase in FY2024 is attributable to the resumption of operations at a business entity that had temporarily suspended activities due to a natural disaster.

*4 Applicable only to Jiangsu Oji Paper, Oji Fibre Solutions, and CENIBRA

*5 Applicable only to regulated work sites

*6 Regardless of energy recovery

*7 Packaging materials only

*8 Applicable only to work sites subject to the PRTR Law

*9 Applicable only to Oji Paper, Oji Materia, and Oji F-Tex

*10 Areas with Extremely High and High Baseline Water Stress in the AQUEDUCT (4.0) Water Risk Atlas.