Oji Group's Dependencies and Impacts

The Oji Group manages its dependencies and impacts using the metrics listed in the table below, based on the TNFD's core global disclosure metrics and the additional sector disclosure metrics for the forestry, pulp and paper sector.

Category	Indicators	Interface with Nature	Metrics	Unit	Performance					TNFD Metrics No.[*1]
					FY2021	FY2022	FY2023	FY2024	FY2025	
Climate change	GHG emissions and absorption	Impacts	Scope 1 emissions	kt-CO_2e	6,398	6,399	5,890	5,791	5,794	
		Impacts	Scope 2 emissions	kt-CO_2e	1,208	1,071	959	1,117	1,087	
		Impacts	Scope 3 emissions	kt-CO_2e	5,573	5,264	5,336	6,089	5,804	
		Impacts	Net increment in carbon stocks by forests owned and managed (five-year average)	kt-CO_2	1,003	919	1,628	1,752	1,709	FP.AX.1.0
		Impacts	Carbon stocks by forests owned and mangaed	kt-CO_2	119,415	122,453	126,835	142,017	143,713	FP.AX.1.0
Land/ freshwater/ ocean-use change	Total spatial footprint	Dependencies/ Impacts	Total area of forests owned and managed	thousand ha	573	603	600	636	637	C1.0
		Dependencies/ Impacts	Area of production forests	thousand ha	432	455	451	472	473	C1.1, FP.A1.0
		Dependencies/ Impacts	Area of conservation forests	thousand ha	141	148	149	164	164	C1.1, FP.A24.0
		Impacts	Forest certificaion rate of forests owned and manged[*2]	%	95	95	98	98	97	C1.1, FP.A22.0
Pollution/ pollution removal	Pollutants released to soil split by type	Impacts	Amount of pesticides from forestry operations	t	-	-	785	3,680	891	C2.0
		Impacts	Amount of pesticides classified as highly hazardous by the FAO and WHO	t	-	-	0	0	2	C2.0
		Impacts	Amount of nitrogen fertilizer used	t	-	-	1,440	1,539	1,615	C2.0
		Impacts	Amount of phosphorus fertilizer used	t	-	-	1,124	1,174	1,133	C2.0
	Wastewater discharge	Impacts	Amount of total water discharged	thousand m^3	675,849	672,780	672,275	651,452	635,941	C2.1
		Impacts	Discharged into rivers, lakes, and marshes	thousand m^3	269,416	255,872	244,025	298,746	292,823	C2.1
		Impacts	Discharged into oceans	thousand m^3	326,949	321,287	319,470	311,015	300,552	C2.1
		Impacts	Discharged into groundwater	thousand m^3	12	22	21	23	38	C2.1
		Impacts	Discharged into the sewer	thousand m^3	79,471	95,599	108,759	41,668	42,528	C2.1
		Impacts	AOX[*3]	kg/t-pulp	0.08	0.08	0.07	0.08	0.09	C2.1
		Impacts	Nitrogen[*4]	t	-	-	1,169	1,002	930	C2.1
		Impacts	Phosphorus[*4]	t	-	-	242	158	127	C2.1
		Impacts	COD[*4]	t	39,072	37,390	35,477	35,220	32,772	C2.1
		Impacts	Suspended solids (SS)[*4]	t	15,161	13,932	12,771	13,205	12,152	C2.1
	Waste generation and disposal	Impacts	Non-hazardous waste generated	t	2,713,914	2,902,187	2,940,059	3,051,538	3,025,861	C2.2
		Impacts	Incinerated[*5]	t	-	-	112,683	115,333	155,216	C2.2
		Impacts	Landfilled	t	-	-	235,293	184,244	173,019	C2.2
		Impacts	Other waste disposal	t	-	-	6,581	29,993	24,860	C2.2
		Impacts	Recycled	t	-	-	72,780	73,770	118,780	C2.2
		Impacts	Hazardous waste generated	t	58,086	86,813	76,867	65,420	70,450	C2.2
		Impacts	Incinerated[*5]	t	-	-	73,729	61,101	67,383	C2.2
		Impacts	Landfilled	t	-	-	5,641	574	309	C2.2
		Impacts	Other waste disposal	t	-	-	129	622	1,355	C2.2
		Impacts	Recycled	t	-	-	2,808	3,298	1,422	C2.2
	Plastic pollution	Impacts	Total plastic used[*6]	t	-	-	30,433	34,557	36,437	C2.3
	Non-GHG air pollutants	Impacts	Soot and dust[*4]	t	3,143	2,800	2,958	2,914	3,293	C2.4
		Impacts	SO_X[*4]	t	5,424	5,955	5,052	5,358	5,181	C2.4
		Impacts	NO_X[*4]	t	12,385	11,595	12,291	12,220	11,419	C2.4
		Impacts	VOC[*7]	t	232	182	159	142	146	C2.4
		Impacts	Mercury[*8]	t	-	-	0.030	0.022	0.019	C2.4

Resource use and replenishment	Water withdrawal and consumption from areas of high water stress[*9]	Dependencies/ Impacts	Water withdrawal from areas of high water stress	thousand m^3	1,411	1,692	1,475	1,703	1,721	C3.0
		Dependencies/ Impacts	Water withdrawal from water supply and industrial water	thousand m^3	250	226	255	315	285	C3.0
		Dependencies/ Impacts	Water withdrawal from rivers	thousand m^3	1,066	1,356	1,054	1,262	1,394	C3.0
		Dependencies/ Impacts	Others	thousand m^3	95	111	167	126	42	C3.0
		Dependencies/ Impacts	Water consumption from areas of high water stress	thousand m^3	103	260	354	397	345	C3.0
	Quantity of high-risk natural commodities sourced from land/ocean/ freshwater	Dependencies/ Impacts	Wood chip procurement	thousand BDt	4,429	4,622	4,453	4,256	4,228	C3.1, FP.A3.1
		Dependencies/ Impacts	Market pulp procurement	thousand ADt	162	183	146	145	151	C3.1, FP.A3.1
		Impacts	FSC™ certified materials or materials that meet FSC™ requirements	%	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 organizations should disclose; A: Additional metrics, which are recommended for disclosure in specific sectors or circumstances
*2 Overseas: Area ratio in company-owned production forests; Japan: Area ratio in company-owned forests excluding shared forests
*3 Applicable only to Jiangsu Oji Paper, Oji Fibre Solutions, and CENIBRA
*4 Applicable only to regulated work sites
*5 Regardless of energy recovery
*6 Packaging materials only
*7 Applicable only to work sites subject to the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement (PRTR Law)
*8 Applicable only to Oji Paper, Oji Materia, and Oji F-Tex
*9 Areas with Extremely High and High Baseline Water Stress in the Aqueduct (4.0) Water Risk Atlas