

GHG emissions (based on GHG protocol, in Million tCO2e)						
	UOM	FY20	FY21	FY22	FY23	FY24
<b>Tata Steel Limited</b>						
Absolute emissions -Scope 1 for all sites		34	33	49	55	56 <sup>#</sup>
Absolute emissions - Scope 2 (Location based)for all sites 1.a		4	4	5	6	7 <sup>#</sup>
Absolute emissions - Scope 2 (Market based)for all sites		4	4	5	6	6
Absolute emissions - Scope 3		14	13	14	16	18
1. Purchased Goods and Services		0.9	1	1.3	1.4	1.4
2. Capital Goods		1	0.4	0.5	0.9	1.5
3. Fuel-and-energy-related-activities (not included in Scope 1 or 2)		1.4	1.3	1.9	2.1	2.1
4. Upstream transportation and distribution		0.5	0.6	0.6	0.8	0.8
5. Waste generated in operations		0.03	0.03	0.04	0.03	0.07
6. Business travel		0.006	0.005	0.007	0.01	0.01
7. Employee commuting		0.016	0.013	0.022	0.02	0.03
8. Upstream leased assets <sup>1.b</sup>		0.09	0.09	0.11	0.23	0.24
9. Downstream transportation and distribution		1.2	1.2	1.4	1.9	2.2
10. Processing of sold products		0.2	0.3	0.2	0.3	0.3
11. Use of sold products <sup>1.c</sup>		7	6	6	6	6
12. End of life treatment of sold products		0.8	0.9	1	1.2	1.4
13. Downstream leased assets		0.002	0.001	0.001	0.003	0.003
14. Franchises		0.002	0.002	0.002	0.002	0.002
15. Investments		1.3	1.1	1.2	1.3	1.3
16. Other upstream		0.01	0.01	0.01	0.01	0.01
17. Other downstream		0.01	0.01	0.01	0.01	0.01
<b>Note</b> : *FY23 emissions re-stated based on FY24 boundary. During FY24, four subsidiaries were merged with parent company - Tata Steel Limited.						
<sup>1.a</sup> Additional Scope 3 emissions assessed in FY24:						
a. Electrical T&D Losses under Scope 3 category 3 Fuel- and Energy-Related Activities, Not Included in Scope 1 or Scope 2						
b. combustion of coal byproducts sold to 3rd party under Scope 3 category 11 Use of Sold Products.						
c. Upstream Coal mining emissions included in category 3 Fuel- and Energy-Related Activities, Not Included in Scope 1 or Scope 2						
d. Upstream Flux mining emissions included in category 1 Purchased Goods & Services						
<sup>1.b</sup> Accounting practices changed for FY2023-24, following 3rd party audit as some 3rd party assets were considered own asset till FY23 (e.g., ASU 1290TPD in TSJ).						
<sup>1.c</sup> capture emissions due to use of coal byproducts sold from Collieries / Washeries.						
<b>Note</b> : Uncertainty of scope 1 & 2 remains low (< 2%) but for scope 3 remains high at close to 10% with some minor categories having uncertainty exceeding 100%.						
@ Includes all Steelmaking sites; @aTS Jamshedpur, TS Kalinganagar for all years reported, TS Meramandali merged in FY2021-22 and TS Gamharia merged in FY2023-24;						
@bNINL; @cTata Steel UK Limited includes Port Talbot; @dTata Steel Nederland BV includes Ijmuiden ; @eTata Steel (Thailand) includes Rayong, Saraburi, Chonburi						
# KPIs assured by Price Waterhouse & Co Chartered Accountants LLP						

Air emissions						
	UOM	FY20	FY21	FY22	FY23	FY24
Tata Steel Standalone <sup>@a</sup>						
Stack dust emissions	Thousand tonnes	5.0	4.1	7.2	6.4	7.0 <sup>#</sup>
Stack Dust emission intensity	kg/tcs	0.38	0.34	0.39	0.34	0.35 <sup>#</sup>
Stack SOx emissions	Thousand tonnes	8.6	7.8	30.4	27.0	32.8 <sup>#</sup>
SOx emission intensity	kg/tcs	0.65	0.64	1.66	1.43	1.63 <sup>#</sup>
Stack NOx emissions	Thousand tonnes	8.7	7.5	16.0	15.8	17.5 <sup>#</sup>
NOx emission intensity	kg/tcs	0.66	0.62	0.87	0.83	0.87 <sup>#</sup>

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Water						
	UOM	FY20	FY21	FY22	FY23	FY24
Specific Water Consumption & Discharge Intensity						
Tata Steel Limited <sup>@a</sup>						
Fresh water consumption <sup>4.a</sup>	Million m <sup>3</sup>	40.8	32.9	49.9	49.8	50.9
Specific fresh water consumption	m <sup>3</sup> /tcs	3.10	2.70	2.71	2.62	2.53 <sup>#</sup>
Effluent discharge volume	Million m <sup>3</sup>	9.5	8.3	9.5	8.1	6.5 <sup>#</sup>
Effluent discharge intensity	m <sup>3</sup> /tcs	0.72	0.68	0.52	0.43	0.32 <sup>#</sup>
<p>4.a Numbers reported for FY2023-24 are based on Financial Year; Previous year numbers were based on Calendar Year.</p> <p>- Water consumption and effluent discharge is for Port Talbot and in FY24, fresh water consumption is total fresh water withdrawal and both fresh water consumption effluent discharge does not include brackish dock water</p>						
<p>@ Includes all Steelmaking sites ;</p> <p>@aTS Jamshedpur, TS Kalinganagar for all years reported, TS Meramandali merged in FY2021-22 and TS Gamharia merged in FY2023-24; @bNINL; @cTata Steel UK Limited includes Port Talbot ; @dTata Steel Nederland BV includes Ijmuiden ; @eTata Steel (Thailand) includes Rayong, Saraburi, Chonburi</p> <p># KPIs assured by Price Waterhouse &amp; Co Chartered Accountants LLP</p>						

Waste						
Tata Steel Limited <sup>@a</sup>						
	UOM	FY20	FY21	FY22	FY23	FY24
Solid waste generated	Thousand tonnes	9,967	9,427	15,041	15,123	15,611
Solid waste utilised	Thousand tonnes	9,967	9,417	14,057	15,559	17,955
Solid waste sent to landfill / incineration	Thousand tonnes	-	5	12	15	15.8
Solid waste utilisation	%	100	100	98	102.9	115
Tata Steel Limited						
	UOM	FY20	FY21	FY22	FY23	FY24
A) Mineral waste generated – Waste rock	Million metric tons	27.85	28.92	31.78	33.71	46.81
B) Mineral waste generated – Tailings	Million metric tons	2.86	2.46	1.92	2.12	2.37
C) Mineral waste repurposed/reused	Million metric tons	1.14	1.15	1.04	1.05	1.21
Total mineral waste disposed	Million metric tons	29.58	30.23	32.66	34.78	47.97
Target set for Mineral waste disposed	Million metric tons					42.8
<p>@ Includes all Steelmaking sites ;</p> <p><sup>@a</sup>TS Jamshedpur, TS Kalinganagar for all years reported, TS Meramandali merged in FY2021-22 and TS Gamharia merged in FY2023-24; <sup>@b</sup>NINL; <sup>@c</sup>Tata Steel UK Limited includes Port Talbot ; <sup>@d</sup>Tata Steel Nederland BV includes Ijmuiden ; <sup>@e</sup>Tata Steel (Thailand) includes Rayong, Saraburi, Chonburi</p> <p># KPIs assured by Price Waterhouse &amp; Co Chartered Accountants LLP</p>						

Energy Intensity						
	UOM	FY20	FY21	FY22	FY23	FY24
Tata Steel Limited @a						
Energy consumption	GJ				44,43,89,343	493997681 <sup>#</sup>
Energy Intensity	GJ/tcs	24.17	24.11	23.62	23.43	24.55 <sup>#</sup>
Renewable Energy						
	UOM	FY20	FY21	FY22	FY23	FY24
Tata Steel Limited	GJ				22,482	51395 <sup>#</sup>

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## Biodiversity

### Tata Steel Limited

	UOM	FY20	FY21	FY22	FY23	FY24
Total sites covered under Biodiversity Management Plans (BMPs)	Nos.	9	11	13	14	17
Total area covered under Biodiversity Management Plans (BMPs)	Hectares	9,648	11,622	11,725	11,782	12,221

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Management						
Tata Steel Limited						
	UOM	FY20	FY21	FY22	FY23	FY24
Workforce (permanent+contract) working in EMS (ISO 14001) certified steel production facilities	%	100	100	100	100	100
<p>@ Includes all Steelmaking sites ;</p> <p>@aTS Jamshedpur, TS Kalinganagar for all years reported, TS Meramandali merged in FY2021-22 and TS Gamharia merged in FY2023-24; @bNINL; @cTata Steel UK Limited includes Port Talbot ; @dTata Steel Nederland BV includes Ijmuiden ; @eTata Steel (Thailand) includes Rayong, Saraburi, Chonburi</p> <p># KPIs assured by Price Waterhouse &amp; Co Chartered Accountants LLP</p>						

## Scrap recycling

### Tata Steel Limited

	UOM	FY20	FY21	FY22	FY23	FY24
Steel scrap recycled (internal & external)	Thousand tonnes	-	1,181	1,330	1,538	1,630
Steel scrap recycled (internal & external)	%	-	5	7	8	8

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