

Environment

Environmental Accounting



Indicator		Unit	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
Environmental Conservation Costs (Investment Amount)	Costs in Business Sites	Million JPY	AMADA Group (Domestic) *1	1	1,729	2,958	445	165
	(Breakdown①) Antipollution Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	(Breakdown②) Global Environmental Conservation Cost	Million JPY	AMADA Group (Domestic) *1	1	1,729	2,958	445	165
	(Breakdown③) Resource Circulation Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Upstream/Downstream Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Management Activities Cost	Million JPY	AMADA Group (Domestic) *1	0	3	0	0	0
	Research and Development Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Social Activities Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Environmental Damage Restoration Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Environmental Conservation Cost and Others	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Total Environmental Conservation Costs (Investment Amount)	Million JPY	AMADA Group (Domestic) *1	1	1,732	2,958	445	165
Environmental Conservation Costs (Expense)	Costs in Business Sites	Million JPY	AMADA Group (Domestic) *1	153	214	323	225	234
	(Breakdown①) Antipollution Cost	Million JPY	AMADA Group (Domestic) *1	32	32	46	29	28
	(Breakdown②) Global Environmental Conservation Cost	Million JPY	AMADA Group (Domestic) *1	36	46	110	81	88
	(Breakdown③) Resource Circulation Cost	Million JPY	AMADA Group (Domestic) *1	86	136	167	115	118
	Upstream/Downstream Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	1	0
	Management Activities Cost	Million JPY	AMADA Group (Domestic) *1	47	52	87	67	59
	Research and Development Cost *2	Million JPY	AMADA Group (Domestic) *1	497	2,544	4,281	2,677	5,300
	Social Activities Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Environmental Damage Restoration Cost	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Environmental Conservation Cost and Others	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
	Total Environmental Conservation Costs (Expense)	Million JPY	AMADA Group (Domestic) *1	696	2,810	7,336	2,970	5,593
Effects of Environmental Conservation	Reduction of CO <sub>2</sub> Emission at Business Sites	t-CO <sub>2</sub>	AMADA Group (Domestic) *1	1,044	969	1,227	1,132	965
	Reduction of Waste Disposal	t	AMADA Group (Domestic) *1	32	53	108	112	129
	Economic Effects	Million JPY	AMADA Group (Domestic) *1	24	94	194	154	187

Environmental Contribution

Indicator		Unit	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
Amada Eco Products *3	Unit Sales	Unit	Consolidated	2,400	3,200	3,500	3,900	3,400
	Amada Eco-Products Unit Ratio	%	Consolidated	51	56	61	63	62
	Sales Amount	Million JPY	Consolidated	86,373	119,533	143,591	162,551	155,811
	Amada Eco-Products Sales Ratio	%	Consolidated	80	84	87	87	87

Environmental Data

Indicator (Input)		Unit	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
Energy	Non-renewable Energy	MWh	AMADA Group (Domestic) *1	59,423	66,216	0	0	0
	Renewable Energy (purchased)	MWh	AMADA Group (Domestic) *1	0	0	67,004	64,609	61,108
	Renewable Energy (self-generated)	MWh	AMADA Group (Domestic) *1	612	605	614	786	1,021
	City Gas	1,000 m³	AMADA Group (Domestic) *1	904	796	832	902	730
	LPG	t	AMADA Group (Domestic) *1	161	213	220	199	200
	Heavy Oil	kl	AMADA Group (Domestic) *1	26	27	21	29	30
	Kerosene	kl	AMADA Group (Domestic) *1	439	591	515	424	446
	Gasoline	kl	AMADA Group (Domestic) *1	9	6	3	5	4
	Diesel Oil	kl	AMADA Group (Domestic) *1	7	11	10	9	7
	Non-renewable Energy	MWh	Overseas Subsidiaries Consolidated *4	35,728	34,837	33,801	35,655	33,119
	Renewable Energy (purchased)	MWh	Overseas Subsidiaries Consolidated *4	3,848	8,997	4,024	5,601	7,121
	Renewable Energy (self-generated)	MWh	Overseas Subsidiaries Consolidated *4	226	136	218	143	253
	Natural Gas	1,000 m³	Overseas Subsidiaries Consolidated *4	1,464	1,271	1,358	1,357	1,335
	LPG	t	Overseas Subsidiaries Consolidated *4	109	111	39	22	27
	Heavy Oil	kl	Overseas Subsidiaries Consolidated *4	11	9	0	0	0
	Kerosene	kl	Overseas Subsidiaries Consolidated *4	0	0	0	0	0
	Gasoline	kl	Overseas Subsidiaries Consolidated *4	165	55	0	0	0
	Diesel Oil	kl	Overseas Subsidiaries Consolidated *4	135	168	47	30	12
	Biomass	MWh	Overseas Subsidiaries Consolidated *4	941	987	1,080	1,430	1,162
	Hot Water	Gcal	Overseas Subsidiaries Consolidated *4	206	229	235	234	259
	Total Energy Consumption	GWh	Consolidated	142	151	144	142	136
Water	City Water	1,000 m³	AMADA Group (Domestic) *1	45	42	44	46	43
	Groundwater	1,000 m³	AMADA Group (Domestic) *1	205	174	149	67	75
	Total Water Withdrawal	1,000 m³	AMADA Group (Domestic) *1	250	215	193	113	117
	Total Water Withdrawal	1,000 m³	Overseas Subsidiaries Consolidated *4	120	142	133	135	127

Indicator (Output)			Unit	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
GHG	CO <sub>2</sub> Emissions	GHG (Scope 1+2) *5	t-CO <sub>2</sub>	AMADA Group (Domestic) *1	29,852	31,675	3,892	3,620	3,323
		(breakdown) Scope 1	t-CO <sub>2</sub>	AMADA Group (Domestic) *1	3,697	4,001	3,892	3,620	3,323
		(breakdown) Scope 2	t-CO <sub>2</sub>	AMADA Group (Domestic) *1	26,155	27,674	0	0	0
		GHG (Scope 1+2) *5	t-CO2	Overseas Subsidiaries Consolidated *4	15,766	14,917	12,986	12,150	11,055
		(breakdown) Scope 1	t-CO <sub>2</sub>	Overseas Subsidiaries Consolidated *4	4,633	4,068	3,338	3,130	3,013
		(breakdown) Scope2	t-CO2	Overseas Subsidiaries Consolidated *4	11,133	10,849	9,648	9,021	8,042
		GHG (Scope 1+2) *5	t-CO <sub>2</sub>	Consolidated	45,618	46,592	16,878	15,770	14,378
		Scope 1+2 (Intensity)	t-CO <sub>2</sub> /Revenue billion yen	Consolidated	182.1	149.0	46.2	39.1	36.2
		Scope 1+2 (Energy Intensity) ※6	t-CO <sub>2</sub> /GWh	Consolidated	322	309	118	111	106
		Scope 3	t-CO <sub>2</sub>	Consolidated	1,323,198	1,942,035	2,184,806	2,232,560	1,915,688
		Category 1: Purchased Products and Services	t-CO <sub>2</sub>	Consolidated	903,207	1,472,466	1,690,332	1,770,921	1,570,758
		Category 2: Capital Goods	t-CO <sub>2</sub>	Consolidated	61,624	60,252	89,203	62,085	34,765
		Category 3: Fuel and Energy-related Activities not Included in Scope 1 or 2	t-CO <sub>2</sub>	Consolidated	8,163	8,702	8,690	8,944	8,523
		Category 4: Transportation and Delivery (upstream)	t-CO <sub>2</sub>	Consolidated	6,107	7,923	8,629	9,442	8,921
		Category 5: Waste from Business	t-CO <sub>2</sub>	Consolidated	10,845	13,727	13,842	14,634	12,399
		Category 6: Business Trips	t-CO <sub>2</sub>	Consolidated	8,025	8,863	10,134	10,588	11,076
		Category 7: Employee Commuting	t-CO <sub>2</sub>	Consolidated	4,090	4,030	4,097	4,102	4,098
		Category 8: Lease Assets (upstream)	t-CO <sub>2</sub>	Consolidated	6,338	8,983	8,064	8,313	8,748
		Category 9: Transportation and Delivery (downstream)	t-CO <sub>2</sub>	Consolidated	-	-	-	-	-
		Category 10: Processing of Sold Products	t-CO2	Consolidated	-	-	-	-	-
		Category 11: Use of Sold Products	t-CO <sub>2</sub>	Consolidated	300,659	346,291	345,141	337,570	250,449
		Category 12: Disposal of Sold Products	t-CO2	Consolidated	1,286	1,348	1,450	1,424	1,140
		Category 13: Lease Assets (downstream)	t-CO <sub>2</sub>	Consolidated	12,855	9,451	5,224	4,538	4,812
		Category 14: Franchise	t-CO2	Consolidated	-	-	-	-	-
		Category 15: Investment	t-CO <sub>2</sub>	Consolidated	-	-	-	-	-
Water		Discharge	1,000 m <sup>3</sup>	AMADA Group (Domestic) *1	74	103	92	88	103
		Discharge	1,000 m <sup>3</sup>	Overseas Subsidiaries Consolidated *4	62	92	93	98	79
Waste		Total Emissions of Waste	t	AMADA Group (Domestic) *1	3,004	4,203	4,336	4,293	3,754
		Amount of Waste Recycled	t	AMADA Group (Domestic) *1	2,919	4,102	4,236	4,179	3,651
		Amount of Waste Incineration	t	AMADA Group (Domestic) *1	69	73	79	93	85
		Amount of Final Disposal	t	AMADA Group (Domestic) *1	17	28	21	22	18
		Zero Emission Rate (Landfill Disposal Rate)	%	AMADA Group (Domestic) *1	0.56	0.66	0.49	0.50	0.49
		Total Emissions of Waste	t	Major overseas Production Sites *7	1,967	2,517	2,389	2,754	2,261
		Amount of Waste Recycled	t	Major overseas Production Sites *7	1,256	1,460	1,732	2,206	1,905
		Amount of Waste Incineration, Others	t	Major overseas Production Sites *7	291	401	89	100	110
		Amount of Final Disposal	t	Major overseas Production Sites *7	421	656	568	448	246
		Zero Emission Rate (Landfill Disposal Rate)	%	Major overseas Production Sites *7	21.42	26.06	23.78	16.28	10.88
		Chemical Substances		Chemical Substances (Subject to the PRTR law *8) Emissions *9	t	AMADA Group (Domestic) *1	39	56	77
NOx	t			AMADA Group (Domestic) *1	2.7	3.6	4.5	0.8	0.6
SOx	t			AMADA Group (Domestic) *1	0	0	0	0	0

Environmental Management System

	Unit	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
ISO 14001 Certified Sites *10	Sites	Domestic	10	10	10	10	10
ISO 14001 Certified Sites *10	Sites	Overseas	5	5	5	5	5
Environmental Fines	Million JPY	AMADA Group (Domestic) *1	0	0	0	0	0
Accidents / Pollution that May Cause Environmental Problems		AMADA Group (Domestic) *1	0	0	0	0	0
Environment-related Complaints		AMADA Group (Domestic) *1	0	0	0	0	0

	-	Data coverage	FY2020	FY2021	FY2022	FY2023	FY2024
Third-Party Assurance *11	-	Covered domestic consolidated companies until FY2021 (*1). Added overseas consolidated companies from FY2022 (*4).	obtained	obtained	obtained	obtained	obtained

**Notes**  
These data are recalculated retroactively in case of changes in aggregation method.

\*1 All domestic consolidated subsidiaries are included. The number of companies is provided on the Amada official website. (<https://www.amada.co.jp/en/corporate/profile/>)

\*2 From FY2021, personnel expenses for R&D are included. From FY2024, the scope is expanded beyond Eco-Products to cover R&D expenses related to improving and energy saving across all products.

\*3 At Amada, we conduct product assessments on "energy saving", "resource saving", "recycling", "material usage restrictions", "environmental considerations upon use", "streamlined rationalization," and "information provision" for all the developed products. Among eco-friendly products, those that assessment result have significantly improved compared with their previous models are declared as Amada Eco-Products.  
Details: [https://www.amada.co.jp/en/sustainability/environment/eco\\_products/](https://www.amada.co.jp/en/sustainability/environment/eco_products/)  
Note that Genefab products are not included in the Eco-Products.

\*4 All overseas consolidated subsidiaries are included. The number of companies is provided on the Amada official website. (<https://www.amada.co.jp/en/corporate/profile/>)

\*5 Emission factor for the relevant years announced by the Ministry of the Environment are applied.

\*6 CO2 emissions of the Amada Group (Domestic + Overseas) ÷ Total Energy Consumption

\*7 The main seven overseas manufacturing sites of the Amada Group (3 in the United States, 2 in France, 1 in Austria, and 1 in China).

\*8 PRTR Law: Law that aims to promote reporting and management of specific chemical substances

\*9 The target substances have been expanded from FY2023. Calculation methods are partially revised.

\*10 Details on ISO14001 certified sites are on the website:  
<https://www.amada.co.jp/en/sustainability/environment/management/>

\*11 The third-party assurance report is available on the website:  
<https://www.amada.co.jp/pdf/en/sustainability/index/assurance.pdf>



**(Calculation Standards for Environmental Data FY2024)**

		Unit	Calculation Standards		
Energy					
	Total Energy Consumption	GWh	Energy = (Fuel, Electricity, etc) × Energy Conversion Factor Fuel Conversion Factor: [Until FY2022] Calculated using the "Simplified Calculation Table for Energy Consumption (Crude Oil Equivalent) for FY2020" from the Agency for Natural Resources and Energy, then converted to GWh. [From FY2023] Calculated using the "Crude Oil Conversion Tool (Revised 2022 Version)" from the Agency for Natural Resources and Energy, then converted to GWh.		
GHG	CO <sub>2</sub> Emissions	CO <sub>2</sub> Emissions (Scope 1+2 : Domestic)	t-CO <sub>2</sub>	CO <sub>2</sub> Emissions = Amount of Purchased Energy × CO <sub>2</sub> Emission Factor CO <sub>2</sub> Emission Factors: Electricity: Ministry of the Environment and Ministry of Economy, Trade and Industry, "Emission Factors by Electric Utility" issued on March 18, 2025. Fuel: Ministry of the Environment and Ministry of Economy, Trade and Industry, "List of Calculation Methods and Emission Factors for the Calculation, Reporting, and Disclosure System," updated on December 12, 2023 (partially revised on January 16, 2024).	
		CO <sub>2</sub> Emissions (Scope 1+2 : Overseas)	t-CO <sub>2</sub>	CO <sub>2</sub> Emissions = Amount of Purchased Energy × CO <sub>2</sub> Emission Factor CO <sub>2</sub> Emission Factors: Electricity: CO <sub>2</sub> emission factors published by the preferred power company or 2022 values from IEA Emission Factors 2024 (issued in September 2024) Fuel: In principle, apply the "List of Calculation Methods and Emission Factors for the Calculation, Reporting, and Disclosure System" (updated December 12, 2023; partially revised January 16, 2024). If the regional emission factors for the site are known, they are given priority.	
		Scope3	t-CO <sub>2</sub>		
		Category 1	t-CO <sub>2</sub>	Procured Products and Services: (Procurement Amount × Emission Factor) - (Procurement Amount of Group Companies × Emission Factor)	
		Category 2	t-CO <sub>2</sub>	Capital Goods: Total Capital Investment × Emission Factor	
		Category 3	t-CO <sub>2</sub>	Fuel and Energy-Related Activities Not Included in Scope 1 and 2: Purchased Fuel Amount × Upstream Emission Factor + Purchased Electricity Amount × Upstream Emission Factor	
		Category 4	t-CO <sub>2</sub>	Transportation and Distribution (Upstream): Company Transport Amount (ton-kilometers) × Emission Factor (calculated based on sales ratio for overseas)	
		Category 5	t-CO <sub>2</sub>	Waste from Business Operations: Waste Amount × Emission Factor	
		Category 6	t-CO <sub>2</sub>	Business Travel: Travel Expenses × Emission Factor (calculated based on the number of people for overseas)	
		Category 7	t-CO <sub>2</sub>	Employee Commute: Commuting Expenses × Emission Factor (calculated based on the number of people for overseas)	
		Category 8	t-CO <sub>2</sub>	Fuel Used for Leased Vehicles × Emission Factor (calculated based on sales ratio for overseas)	
		Category 9	t-CO <sub>2</sub>		
		Category 10	t-CO <sub>2</sub>		
		Category 11	t-CO <sub>2</sub>	Use of Sold Products: Number of Units Sold per Product Category × Energy Consumption × Product Lifetime (10 years) × Emission Factor	
		Category 12	t-CO <sub>2</sub>	Disposal of Sold Products: Number of Units Sold × Emission Factor	
		Category 13	t-CO <sub>2</sub>	Scope 1 and 2 for Rental Properties: Amount of Purchased Fuel × Emission Factor + Amount of Purchased Electricity × Emission Factor	
		Category 14	t-CO <sub>2</sub>		
		Category 15	t-CO <sub>2</sub>		
		Emission Factors Used		C1: Environmental Load Intensity Data Book Based on the Input-Output Table (3EID) 2015 C2, C3 (Electricity), C4, C5, C6, C7: Ministry of the Environment's Emission Factor Database for Calculating Greenhouse Gas Emissions through the Supply Chain (Ver 3.5) C3 (Fuel): LCI Database IDEA version 3.4.1 C4: Guidelines for Calculation Methods of CO <sub>2</sub> Emissions in the Logistics Sector by the Ministry of Economy, Trade and Industry and Ministry of Land, Infrastructure, Transport and Tourism C8: List of Calculation Methods and Emission Factors in the System for Calculation, Reporting, and Public Disclosure by Ministry of the Environment C11: List of Emission Factors by Electric Power Utility (Announced on March 18, 2025) for sales in Japan. 2022 values from IEA Emission Factors 2024 (issued in September 2024) for sales outside Japan. C12: Self-calculated Emissions per Unit Disposal C13 (Electricity): List of Emission Factors by Electric Power Utility by the Ministry of the Environment and Ministry of Economy, Trade and Industry (Issued on March 18, 2025) C13 (Fuel): List of Calculation Methods and Emission Factors in the System for Calculation, Reporting, and Public Disclosure by the Ministry of the Environment and Ministry of Economy, Trade and Industry (Updated on December 12, 2023, with partial corrections on January 16, 2024)	