Environmental Management

Policies and Strategies

To help realize a sustainable society, the Furukawa Company Group engages continuously in environmental protection activities to address issues related to the global environment and biodiversity.

These include activities aimed at realizing a decarbonized society in accordance with the Furukawa Company Group's Charter of Corporate Conduct and the Basic Environmental Management Principle.

To address global warming, we are promoting activities in line with our Fourth Medium-Term Reduction Targets, which are based on our Vision for 2025. Regarding our efforts to achieve carbon neutrality, we have expanded the scope of environmental performance data collection to include the consolidated Group level. Following a roadmap for carbon neutrality announced in July 2024, we are implementing specific measures to reduce CO_2 emissions.

To protect the environment, we are working to enhance our risk response capabilities, including by strengthening resilience against natural disasters and stepping up preventive activities through data visualization and quantification.

In addition, we will evaluate the impact of our business activities on ecosystems and take measures to minimize that impact. We will also work systematically to preserve and restore ecosystems. For example, we will engage in ongoing greening initiatives, participate in restoration projects for local flora and fauna, and formulate management plans aimed at ensuring the healthy growth of forests.

Basic Environmental Management Principle & Environmental Conservation Activity Policies

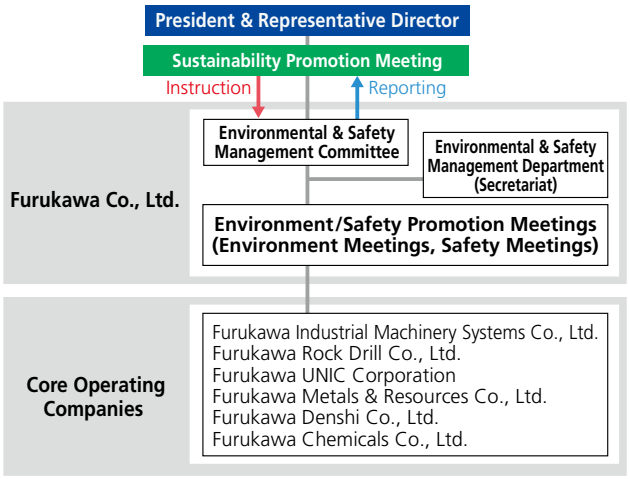
Governance Framework

Environmental & Safety Management Committee

Important matters related to environmental protection and occupational health and safety of the Group are drafted and deliberated by the Environmental & Safety Management Committee, whose members include top management from each of our production centers. At its meeting held in April 2024, the Committee reported on the results of environmental and safety activities undertaken in fiscal 2023, the progress and future of the Fourth Medium-Term Reduction Targets, the status of efforts to achieve carbon neutrality, expansion of the scope of environmental performance data compilation to a consolidated basis, biodiversity preservation activities, and the management status of suspended or abandoned mines. The Committee also received safety-related instructions from the Environmental & Safety Management Department aimed at preventing recurrence of accidents and disasters that occurred in fiscal 2023.

Due to a severe workplace accident within the Group in fiscal 2023, we reviewed and finalized our key environmental and safety action targets for fiscal 2024. These include strengthening workplace inspections, enhancing measures for preventing occupational accidents, and intensifying health and safety initiatives.

Environmental & Safety Promotion System



[Environmental & Safety Management Committee]

Chairman: General Manager, Environmental & Safety Management Department
Committee members: General managers of relevant divisions and plant managers of each core operating company (or general manager of the Administration Department if there is no plant manager)
Secretariat: Environmental & Safety Management Department
Location: Head office
Frequency: Once a year

Environment/Safety Promotion Meeting (Environment Meetings, Safety Meetings)

Attendees: General manager and staff of the Environmental & Safety Management Department; persons responsible for the environment and safety at each core operating company and others
Secretariat: Environmental & Safety Management Department

Environment/Safety Promotion Meetings

Our Environment/Safety Promotion Meetings are held annually with participation of personnel in charge of environmental and safety matters. These sessions are divided into Environment Meetings and Safety Meetings, with the aim of enhancing environmental protection and occupational safety activities at each site.

Safety Meetings

The fiscal 2023 Safety Meeting was held in July 2023 at the Ashio Office of Furukawa Co., Ltd. At that meeting, attendees received a report on our accident prevention activities at various sites, as well as guidance on areas needing improvement based on that report. They also engaged in lively discussion on disaster and accident prevention measures based on the status of incidents in the Group and the results of trend analysis. In addition, attendees decided on items to address at each site in the future. These included improving the quality of communication between supervisors and subordinates and strengthening safety education for managers and supervisors as measures to achieve accident- and disaster-free operations.

Fiscal 2023 Safety Meeting at the Sunokobashi tailing dam of the Ashio Office

Environment Meetings

The fiscal 2023 Environment Meeting was held in November 2023 at the Yoshii Works of Furukawa Rock Drill Co., Ltd. At that meeting, attendees received reports on efforts to improve environmental performance at various sites, covering metrics such as energy consumption, CO_2 emissions, water consumption, total other emissions (including waste), and substances regulated under the PRTR. They also received updates on progress and strategies for achieving carbon neutrality and confirmed future action plans. In addition, attendees discussed measures to prevent recurrence using examples of accidents that have occurred within the Group. They also received training on environment-related laws and regulations required for daily operations and verified the level of understanding to confirm the effectiveness of such training.

Fiscal 2023 Environment Meeting at the Yoshii Works

ISO 14001 Certification Acquisition Status

The status (acquisition rate) of ISO 14001 certification, the international standard for environmental management systems, in the Furukawa Company Group is as follows.

Domestic	Core operating companies with domestic production facilities: Certification received by 5 out of 5 companies (100%), as well as the R&D Division
Overseas	Overseas Group companies with production facilities: Certification received by 2 out of 3 companies (67%)

Company Name	Acquisition Date	Certification Organization
Furukawa UNIC Corporation (Sakura Works)	November 30, 2001	Japan Quality Assurance Organization (JQA)
Furukawa Industrial Machinery Systems Co., Ltd. (Oyama Tochigi Works)	October 22, 2002	Nippon Kaiji Kyokai (ClassNK)
Furukawa Co., Ltd. (Technology Division)	January 14, 2004	JSA Solutions Co., Ltd.
Furukawa Rock Drill Co., Ltd. (Takasaki Yoshii Works)	April 28, 2004	TÜV Rheinland Japan Ltd.
Furukawa Chemicals Co., Ltd. (Osaka Works)	January 27, 2005	JIC Quality Assurance Ltd. (JICQA)
Furukawa Denshi Co., Ltd. (Iwaki Works)	March 4, 2005	Japan Quality Assurance Organization (JQA)
Gunma Kankyo Recycle Center Co., Ltd.	January 26, 2010	Management System Assessment Center
TAIAN FURUKAWA UNIC CRANE CO., LTD.	June 15, 2018	Shanghai Audit Centre of Quality System
FURUKAWA UNIC (THAILAND) CO., LTD.	May 26, 2019	Perry Johnson Registrars, Inc.

* Tochigi Works acquired an integrated certification with the Oyama Works on June 19, 2009.

Risk Management

Environmental and Safety Audits

The Furukawa Company Group is working to improve the quality of environmental protection and health and safety activities at each site by shifting its emphasis from corrective to preventive measures. In this way, we support the efforts of each site to achieve accident- and disaster-free operations. As part of these efforts, we conduct environmental and safety audits every year.

With respect to the environment, in fiscal 2023 we confirmed the status of compliance with environmental laws and regulations, the status of environmental ISO-related activities, and the implementation status of environmental education.

In terms of safety, we provided education and guidance on the status of safety activities (education on occupational health and safety, risk assessment, utilization of near-miss reports, and the like) aimed at reducing accidents and disasters.

TakasakiWorks of Furukawa Rock Drill Co., Ltd.

Metrics and Targets

Environmental Protection Costs

The Furukawa Company Group uses the Environmental Accounting Guidelines from the Ministry of the Environment as a reference in understanding costs and works hard to protect the environment and improve its environmental efficiency.

The total investment for fiscal 2023 was ¥693 million, mainly for preventive measures at suspended or abandoned mines and renewal of production machinery and air conditioning equipment in our plants.

Total expenses in fiscal 2023 amounted to ¥1,414 million. This was mainly allocated to environmental protection activities, such as maintenance and management of pollution prevention facilities, forest preservation, and nature restoration and recovery. Our environmental remediation costs included expenses for restoration work around a limestone mine and special district payments made to neighboring communities.

Economic Benefits Associated with Environmental Protection

In fiscal 2023, Furukawa Chemicals Co., Ltd., commissioned a steam turbine generator at its Osaka Works, resulting in a ¥63 million year-on-year reduction in purchased electricity costs. For the year, the economic benefits associated with resource circulation, including proceeds from sales of materials with value, amounted to ¥238 million.

Environmental Liabilities

In fiscal 2023, we recorded a liability of ¥5 million for PCB waste disposal costs. This was deemed a reasonable estimate of expected future environmental liabilities as of March 31, 2024.

● Environmental Protection Costs (by Business Activity)

(Millions of yen)

Category		Principal Activity	Investment	Cost
(1) Business area costs			657	1,099
Breakdown	Pollution prevention cost	Air and water pollution prevention	268	745
Breakdown	Global environmental protection cost	Energy conservation and maintenance/management of Company-owned forests	389	102
Breakdown	Resource circulation cost	Recycling, waste disposal, and effective use of water	0	252
(2) Upstream/downstream costs		Recycling, recovery, and re-commercialization of products on the market	0	10
(3) Administration cost		ISO 14001 operation, environmental education, cleanup/greening of business sites, etc.	7	93
(4) R&D cost		R&D to develop products that contribute to environmental preservation	29	197
(5) Social activity cost		Community cleanups and greening, etc.	0	13
(6) Environmental remediation cost		Recovery from environmental degradation caused by business activities	0	2
		Total	**693**	**1,414**

● Environmental Protection Benefits

Category	Environmental Performance Indicator (Unit)	FY2022	FY2023
Benefits related to resources input into business activities	Total energy consumption (thousand GJ)	410	**565**
	Total water consumption (thousand m^3)	568	**650**
Benefits related to waste and environmental impact originating from business activities	CO_2 emissions (t-CO_2)	19,536	**26,037**
	Total other emissions, including waste (t)	6,459	**7,860**

*1 In fiscal 2023, we expanded the scope of calculation, from major domestic production sites to a consolidated basis, including overseas sites.

● Economic Benefits Associated with Environmental Protection (Material Benefits)

(Millions of yen)

Benefit		Amount
Resource circulation (including gains from sales of materials with value)	Gains on sales of stainless steel, iron, etc.	238
Energy-saving benefits	Reduction in purchased electricity costs through steam turbine operation	63
	Total	**301**

● Environmental Protection Costs

Global environmental protection	56.1%
Pollution prevention	38.7%
R&D	4.2%
Administration	1.0%

● Furukawa Company Group's Material Flow (Fiscal 2023)

INPUT

	Type	Volume Used in FY2023	Type	Volume Used in FY2023	Type	Volume Used in FY2023
Total energy input	Volatile oil (gasoline)	44 kℓ	Liquefied petroleum gas (LPG)	335 t	Cold water	598 GJ
	Kerosene	268 kℓ	Liquefied natural gas (LNG)	180 t	Biogas (non-fossil fuel)	3 thousand m^3
	Diesel oil	658 kℓ	City gas	859 thousand m^3	Power consumption	59,379 thousand kWh
	Fuel oil A	234 kℓ	Warm water	229 GJ	Renewable energy (portion of power consumption)	13,089 thousand kWh
Total water consumption	Clean water	119 thousand m^3	Industrial water	434 thousand m^3	Groundwater	97 thousand m^3

OUTPUT

CO_2 emissions	Scope 1 (energy origin)	6,766 t-CO_2
	Scope 2	19,271 t-CO_2
	Scope 1 + 2 total	26,037 t-CO_2
	Scope 3 total*2	686,426 t-CO_2
Wastewater	391 thousand m^3	
Total other emissions, including waste	7,860 t	

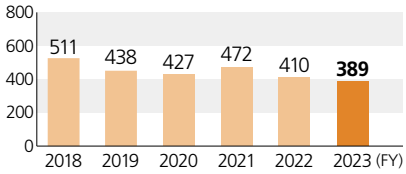
*2 Sum total of Categories 4, 5, 6, and 11

Material Flow

INPUT

Total energy consumption

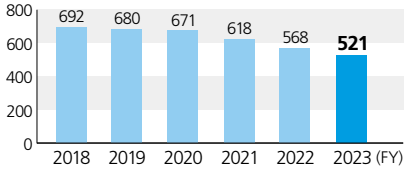
(Thousand GJ)



During the fiscal year, we introduced equipment and machinery that meet the standards of Japan's Top Runner program at each plant while enhancing the efficiency of production processes and lowering production volume at some sites. As a result, total energy consumption declined 5.3% year on year.

Total water consumption

(Thousand m³)

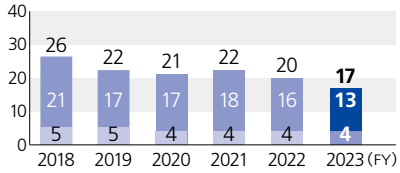


In fiscal 2023, we promoted more efficient use and reuse of water resources and more efficient production processes while also working to conserve water. Consequently, total water consumption declined 8.2% from the previous fiscal year.

OUTPUT

CO_2 emissions

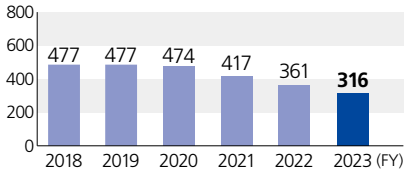
(Thousand t-CO_2) Scope 1*3 Scope 2



Due to the 5.3% decrease in total energy consumption and a change in the CO_2 emissions coefficient, CO_2 emissions declined 13% year on year.

Wastewater

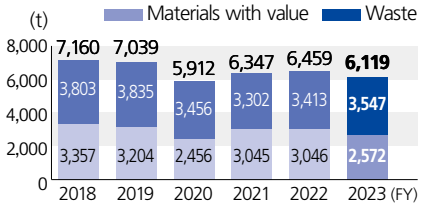
(Thousand m³)



As a result of the 8.2% decrease in total water consumption, wastewater declined 12% from the previous fiscal year.

Total other emissions, including waste

(t) Materials with value Waste



During the fiscal year, we promoted waste reduction and recycling and lowered production at some business sites. As a result, total other emissions, including waste, declined 5.3% year on year. Materials with value accounted for 42% of total other emissions, including waste.

*1 To enable effective comparisons with fiscal 2022 and prior years, the above fiscal 2023 results pertain to major domestic production sites only (rather than on a consolidated basis, including overseas sites).
*2 Above figures for year-on-year percentage change are based on figures compiled by the Company and rounded off to the third significant digit.
*3 Scope 1 was calculated based on energy origin.

Initiatives

Fourth Medium-Term Reduction Targets and Results of the Fifth Year

The Fourth Medium-Term Reduction Targets, which cover fiscal 2019 to fiscal 2028, deal with predicted upcoming increases in environmental performance factors (CO_2 emissions, water consumption, and total other emissions, including waste) under the production plan based on Vision for 2025. Following discussion with each core operating company, we set targets to reduce CO_2 emissions by 2%, water consumption by 2%, and total other emissions, including waste, by 3%, respectively, relative to the predicted figures for fiscal 2028 (at major production sites).

In fiscal 2023, the fifth year of the Fourth Medium-Term Reduction Targets, we met our targets for CO_2 emissions, water consumption, and total other emissions, including waste.

In fiscal 2024, the sixth year of the Fourth Medium-Term Reduction Targets, we will accurately monitor progress at each site and continue working to achieve our reduction targets.

In fiscal 2023, we expanded the scope of environmental performance calculation (aggregation) from major domestic production sites to a consolidated basis, and will report our results on a consolidated basis from fiscal 2025 onward.

In July 2024, meanwhile, we set CO_2 emission reduction targets for the Furukawa Company Group and will report our performance relative to those targets from fiscal 2025 onward.

Fourth Medium-Term Reduction Targets and Results of the Fifth Year

	FY2028	FY2023 (Fifth Year)	
	Reduction target*1	Reduction target	Reduction result
CO_2 emissions	2%	1%	38.8%
Water consumption	2%	1%	12.7%
Total other emissions, including waste	3%	1.5%	17.4%

*1 Reduction targets relative to the predicted figures for fiscal 2028
*2 Targets and results pertain to major domestic production sites

Compliance with Environmental Laws and Regulations

The Furukawa Company Group sets voluntary control standards for each plant and business site. We also periodically measure the quality of water discharged, noise and vibration in the vicinity of sites, and so on, then analyze the results of such measurements. In these ways, we strive to minimize the environmental impact of our business activities while ensuring that we do not exceed the set control standards.

In addition, the Environmental & Safety Management Department holds annual Environment Meetings for managers of environmental protection activities at each plant and business location. At those meetings, we provide training on environment-related-laws and regulations required for daily operations and verify the level of understanding to confirm the effectiveness of such training.

No cases of violation of environmental laws or regulations occurred in fiscal 2023.