

VI. Report on Environmental Aspects

1. Environmental management

(1) The Hitachi Metals Group's Environmental Vision

The Hitachi Metals Group promotes "efforts toward a decarbonized society," "contribution to a resource-efficient society," and "biodiversity conservation" as the three key pillars of its environmental vision. We aim to achieve both higher quality lifestyles and a sustainable society by resolving environmental issues in collaboration with our stakeholders. The Group will implement the FY2022 Environmental Action Plan by category, at each business site, in order to reduce CO₂ emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout its value chain. In addition, we have set long-term targets to achieve carbon neutrality—effectively zero carbon emissions—by 2050, an approach to realizing the vision of a decarbonized society by 2050.

Hitachi Metals Group Codes of Conduct

Toward a Sustainable Society

1. We will contribute to resolving social issues by promoting innovative solutions , accelerating collaborative creation with partners and stakeholders, and further integrating social and environmental responsibility into our business activities.
2. We will strive to develop technologies that contribute to social development and use them with due consideration of their impact on society.
3. We envision a low-carbon society, a resource efficient society, and a society in harmony with nature.
To this end, we will endeavor to reduce CO₂ emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout our value chain.
4. As a corporate citizen, we will make efforts to build a rapport with local communities and contribute to their development by working together to resolve social issues.

(2) Hitachi Metals Group Basic Environmental Protection Policies

Hitachi Metals Group Basic Environmental Protection Policies

Philosophy

Hitachi Metals' Corporate Creed is to "contribute to society by being the best enterprise." In line with this, we regard it as crucial to ensure that humanity's shared environmental resources can be passed down to future generations in the best possible condition. Accordingly, throughout our operations we treat environmental considerations as an issue of the highest importance and strive actively to promote environmental protection efforts on both the global and local community levels.

Slogan

- With a deep awareness that environmental protection is a major issue for all humanity, fulfill social responsibilities by striving to establish a sustainable society in harmony with the environment, regarding it as one of the essential aspects of corporate activity.
- Contribute to society by developing highly reliable technologies and products in response to needs for environmental protection and the limited nature of resources.

Business Conduct Guidelines

1. Compliance with environmental laws and regulations, and prevention of pollution

Comply with all applicable laws and regulations concerning environmental issues on all levels, from international laws to national, regional, and local pacts. Establish voluntary environmental standards as needed in order to assure compliance.

Identify potential environmental problems and take action to prevent pollution. In the event that environmental problems have occurred, take appropriate countermeasures to minimize environmental impact.

2. Maintenance of environmental organizational structure and enhancement of environmental supervision

Maintain an organizational structure that includes leadership by an executive responsible for managing environmental issues, as well as an underlying administrative structure. Promote environmental protection activities by applying voluntary environmental standards and establishing clear environment-related goals.

Additionally, strive to continually improve our environmental management through confirming that our environmental protection activities are being carried out in an adequate, effective, and proper manner.

3. Promotion of global manufacturing with consideration of LCA (Life Cycle Assessment)

Endeavor to reduce the environmental burden in the entire life cycle, including R&D, product design, manufacture, distribution, sale, use, and disposal. Promote the following as global manufacturing priorities:

- 1) Environment-conscious products, 2) prevention of climate change, 3) conservation and recycling of resources, 4) chemical management, and 5) conservation of biodiversity.

4. Environmental consideration at sites all over the world

Consider environmental impact in the areas around our manufacturing sites, and strive to carry out policies responsive to the requirements and needs of the local communities.

5. Education and training to increase environmental awareness

Educate and train employees about environmental protection and the importance of compliance with environmental laws and regulations to raise employees' awareness of the environment from a broad perspective.

6. Information disclosure

Promote positive communication through the disclosure of information regarding environmental protection activities to stakeholders, strengthen mutual understanding and foster a collaborative relationship.

Formulated: April 1, 2010
Revised: December 1, 2016

(3) The Hitachi Metals Group’s Environmental Management Promotion Structure

(a) Governance

In April 2010, Hitachi Metals Group established the Hitachi Metals Group Basic Policy on Environmental Preservation to clarify the Group’s unified approach to environmental management. In June 2021, we registered our support for the TCFD Recommendations, and in August of that year, following a report to the Board of Directors, we established a new environmental policy named “Aiming for Green Growth while taking Risks as Opportunities.”

The Hitachi Metals Group Environmental Committee (Group Environmental Committee, hereinafter) has been established as a framework for promoting environmental activities such as climate-change countermeasures. The Group Environmental Committee is chaired by the Technology Development Executive Officer, and its executive office is the Environmental Strategy Department, Technology Development Division. Its activities are promoted in cooperation with the environmental management managers of each business division, business sites, and group companies. The Group Environmental Committee is responsible for developing environment-related regulations, setting targets for reducing environmental impact, and confirming that activities are appropriate and effective.

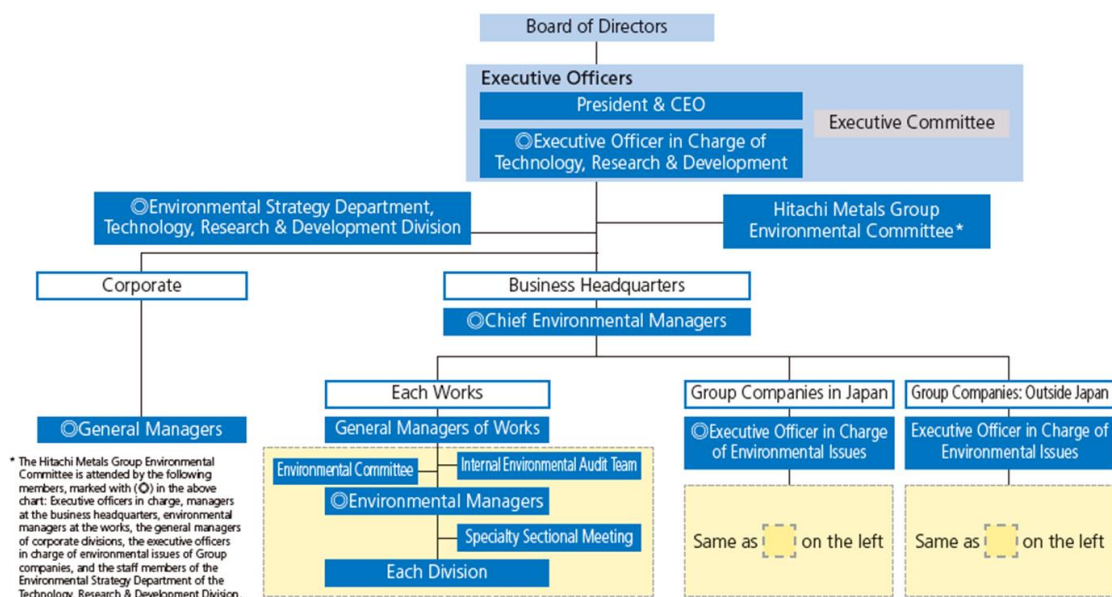
Policies and targets concerning environmental activities are discussed and set by the Group Environmental Committee as mid-term and annual environmental-action plans. With regard to climate-change countermeasures, the Environmental Action Plan sets targets for reducing CO₂ emissions within the Hitachi Metals Group. On the basis of those targets, energy-saving activities and the use of renewable energy are being promoted at each manufacturing site. The status of reductions in CO₂ emissions is monitored regularly, and the Group Environmental Committee meets once a year to share the results of the previous year, the status of numerical targets for the current year, and major initiatives to promote continuous improvement of activities.

From fiscal year 2021, the Technology Development Executive Officer, who chairs the Group Environmental Committee, reports to the Executive Committee and the Board of Directors twice a year on the status of efforts, including climate-change measures, to address environmental issues.

Status of important decisions on climate change in fiscal year 2021

Month/Year	Decisions on important issues related to climate change	Meeting body
June 2021	Endorsement of TCFD	Executive Committee
August 2021	New Environmental Action Policy “Aiming for Green Growth by Taking Risks as Opportunities”	Board of Directors
October 2021	Introduction of “Internal Carbon Price” Internal rules on capital investment stipulate that the effect of CO ₂ reduction by capital investment must be calculated as profit on the basis of the “internal carbon price” and incorporated into profit plans.	Executive Committee

Environmental Promotion Structure



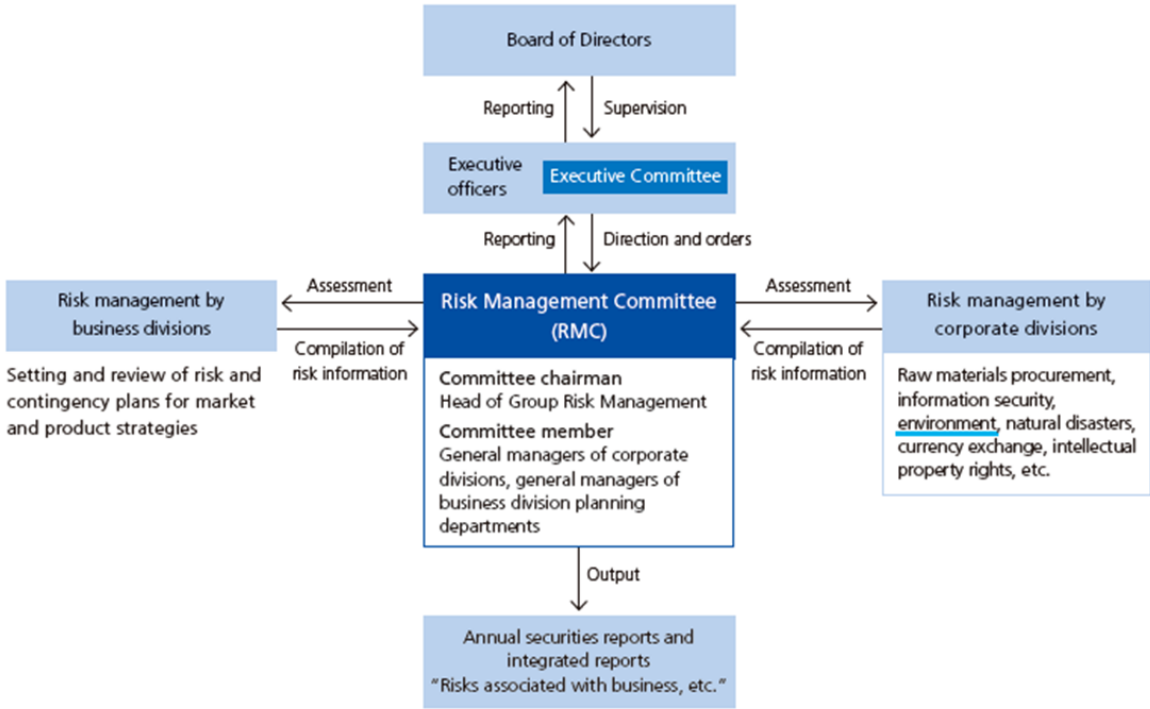
Roles in the Promotion Structure

Executive Officer in Charge	The Technology Development Executive Officer is in charge of the environment and exercises overall control through the Group Environmental Committee.
Hitachi Metals Group Environmental Committee	Deliberate and determine policies, targets, etc. related to environmental activities within the Hitachi Metals Group.
Chief Environmental Management Officer	Oversee environmental management activities within business headquarters.
Environment Committee Members	Deliberate and determine policies, targets, etc. related to environmental activities at each business site.
Environmental managers	Take responsibility for and promote environmental-management activities at each business site.

(b) Risk Management

In April 2022, Hitachi Metals Group established a “Companywide Risk Management Committee” (RMC) under the supervision of the Executive Officer responsible for group-risk management. The RMC summarizes various business risks surrounding the Group and contingency plans for those risks, and evaluates their coverage and weighting. Risks related to climate change identified by the Group Environmental Committee, corporate administrative divisions, and business divisions are reported to the RMC together with other risks as risks related to environmental regulations. The RMC is scheduled to meet twice a year, and the results of the interim and year-end risk-management assessments of the RMC are reported to and reviewed by the Executive Committee and the Board of Directors.

Risk Management Structure



(4) Fiscal 2019–Fiscal 2021 Medium-Term Environmental Action Plan and Fiscal 2021 Results

The Hitachi Metals Group's Medium-Term Environmental Action Plan for fiscal 2019 to fiscal 2021, along with results and assessments for fiscal 2021, are summarized in the table below.

Achievement rating: ○: fully achieved; △: 90% achieved; ×: not achieved

	Item	Action Target	2019			2020			2021			
			Target	Actual	Rating	Target	Actual	Rating	Target	Actual	Rating	
Governance	Adhere to environmental compliance practices and reduce risks	Internal audit implementation rate	100 %	100 %	○	100 %	100 %	○	100 %	100%	○	
	Cultivate environmental literacy	Implement environmental auditor development training	1 or more	Twice	○	1 or more	Once	○	1 or more	Once	○	
		e-learning Participation rate	100 %	—*1	—*1	100 %	92%	△	100%	97%	△	
	Improve environmental activity level	GREEN21-2021	140 GP	166 GP	○	210 GP	180 GP	×	280 GP	213 GP	×	
Low-carbon society	Products	Sales ratio of key environmentally conscious products	23%	20.2%	×	24%	21.2%	×	25%	21.4%	×	
		Conduct environmentally conscious design assessments (20 over three years)	7	11	○	9 (Two years)	9	○	9 (Two years)	9	○	
	Factories	Reduce CO ₂ emissions from Works	5%	1.4%	×	6%	-2.3%	×	7%	2.1%	×	
		Reduce CO ₂ emissions during transportation	19%	31.9%	○	20%	29.6%	○	21%	33.4%	○	
Resource efficient society	Resource circulation	Reduce and recycle waste	Improvement in the rate of waste and valuables generated per production unit (vs. FY2010)	12%	16.6%	○	13%	15.2%	○	14%	18.9%	○
		Waste landfill rate ^{*2}	14%	13.7%	○	13%	10.9%	○	12%	11.7%	○	
	Water resources	Improve water-use efficiency	Improvement rate of water usage per production unit (vs. FY2010)	22%	22.2%	○	24%	12.2%	×	26%	29.9%	○
Society in harmony with nature	Chemical substances	Reduce output of chemical substances	Improvement rate of per unit rate of chemical substances released into the atmosphere ^{*3}	26%	22.6%	×	27%	34.2%	○	25%	33.7%	○

	Preservation of ecosystems	Impact on natural capital	Forest conservation activities (number of initiatives)	4	4	○	4	2	×	4	5	○
		Preservation of ecosystems	Activities for preservation of ecosystems (cumulative total number of initiatives)	4	17	○	8	9	○	12	14	○
Collaboration with stakeholders	Social contribution	Community cleanup activities, Lights Down campaigns, etc.	Continue activities and reduce environmental impact in aspects other than the protection of ecosystems	○	Continue activities and reduce environmental impact in aspects other than the protection of ecosystems	○	Continue activities and reduce environmental impact in aspects other than the protection of ecosystems	○	○	○	○	○

*1. Environmental e-learning is implemented as new general environmental education starting from FY2020 after educational methods and contents (teaching materials) are reviewed. In FY2019, e-learning was not conducted as it was under preparation. At each business site, general environmental education is conducted as usual.

*2. Excluding household waste, hazardous waste, and in-house landfills (landfills on the Company's sites)

*3. Excluding Kumagaya Light Alloy Plant from Actual values for fiscal 2020, due to its withdrawal from business

Fiscal 2022–Fiscal 2024 Medium-Term Environmental Action Plan

The Hitachi Metals Group’s Medium-Term Environmental Action Plan for fiscal 2022 to fiscal 2024 is implemented as follows.

		Item	Action Target	Numerical Target (FY)		
				2022	2023	2024
Governance		Adhere to environmental compliance practices and reduce risks	Internal audit implementation rate	100%	100%	100%
		Cultivate environmental literacy	Implement education for new hires	Once	Once	Once
			Implement environmental auditor development training	1 or more	1 or more	1 or more
			e-learning attendance rate	100%	100%	100%
Low-carbon society	Products	Sales ratio of key environmentally conscious products	23%	24%	25%	
	Factories	Reduce CO ₂ emissions from Works	Reduce CO ₂ emissions (vs. FY2015) (total)	20%	20%	22%
		Reduce CO ₂ emissions during transportation	Improvement rate of energy consumption per transportation unit (Japan) (year-on-year)	1%	1%	1%
Resource-efficient society	Resource circulation	Reduce and recycle waste	Improvement in the rate of waste and valuables generated per production unit (vs. FY2010)	33%	34%	35%
			Waste landfill rate	11.5%	11.0%	10.5%
	Water resources	Improve water-use efficiency	Improvement rate of water usage per production unit (vs. FY2010)	33%	34%	35%
Preservation of ecosystems	Chemical substances	Reduce output of chemical substances	Improvement rate of per unit rate of chemical substances released into the atmosphere	26%	27%	28%

	Preservation of ecosystems	Promote and contribute to activities for preservation of ecosystems	Continue activities and contribute to preservation of ecosystems through overall corporate activities
Collaboration with stakeholders	Social contribution	Community cleanup activities, Lights Down campaigns, etc.	Continue activities and reduce environmental impact from aspects other than the protection of ecosystems

(5) Environmental Accounting

The Hitachi Metals Group has introduced environmental accounting to allocate corporate resources appropriately and continuously improve the efficiency of environmental investments and activities. The Group also aims to increase the understanding of its stakeholders by disclosing information about the effect and efficiency of its activities.

Environmental costs include things like environment-related capital investment, equipment maintenance and administration costs, and R&D costs.

Environmental effects include economic effects measured in monetary terms and categorized under waste processing and recycling, energy conservation, and others (R&D, recycling of products and packing materials, etc.).

The results for fiscal 2020 are as follows:

(a) Environmental Costs

Our environmental costs in fiscal 2021 were 9.79 billion yen in expenses and 0.3 billion yen in investment, for a total of 10.09 billion yen.

(b) Environmental Effects

The economic effects amounted to a total of 14.67 billion yen, primarily due to waste elimination, recycling, and energy conservation.

(c) Results of Environmental Accounting

■ Environmental Costs

(100 million yen)

Cost classification			FY2020		FY2021	
			Expense	Investment	Expense	Investment
	Business area costs	Pollution prevention	14.3	1.5	14.2	1.2
		Global environmental preservation	19.0	3.9	18.6	1.5
		Resource recycling	23.8	0.5	34.7	0.3
		Subtotal	57.1	5.8	67.5	3.0
	Upstream and downstream costs	2.4	0.0	2.4	0.0	
	Management activity costs	6.9	0.0	18.3	0.0	
	Research and development costs	11.0	0.0	9.2	0.0	
	Community activity costs	0.0	0.0	0.0	0.0	
	Other	0.6	0.0	0.4	0.0	
Total			78.0	5.8	97.9	3.0

■Environmental Effects

(100 million yen)

Economic Effects	Item	FY2020	FY2021
	Waste processing and recycling	100.5	142.8
	Energy conservation	1.8	1.6
	Other	2.4	2.3
	Total	104.7	146.7

- Scope of disclosure: The Hitachi Metals Group in Japan
- Calculation period: April 1, 2021 to March 31, 2022

(6) Integrated Environmental Management System (Integrated EMS^{*1})

The Hitachi Metals Group has introduced ISO 14001 as its environmental management system. We began acquiring certification for individual factories in 1997, and then built integrated Environmental Management Systems (integrated EMS^{*1}) at each segment of the Business Headquarters (specialty steel as well as functional components and equipment of the Advanced Metals Division, and magnetic materials and applications as well as wires, cables, and related products of the Advanced Components and Materials Division). This action was prompted by the increasing necessity of close links with headquarters departments in areas such as engineering, planning, and sales, to comply with product environmental regulations and expand sales of eco-products.

ISO 14001:2015, revised in September 2015, requires that environmental management be in balance with the strategic direction of the business and integrated with business processes. We strove to transition to the 2015 requirements as we worked toward an integrated EMS for each segment of the Business Headquarters, and completed the transition during fiscal 2017.

Since April 2019, we have shifted to a two-division organization consisting of the Advanced Metals Division and the Advanced Components and Materials Division. However, the EMS of each segment (the former four internal companies) has been implemented within the new system of the Business Headquarters.

*1: Environmental Management System

(7) Environmental Auditing

The Environmental Management Department, Technology, Research and Development Division, conducts companywide environmental audits in an attempt to achieve thorough adherence and compliance with environment-related laws and regulations, appropriate EMS management regarding environmental action plan, and comprehensively mitigate environmental risks.

In fiscal 2021, environmental affairs audits were conducted at seven sites (six in Japan and one outside Japan) in conjunction with internal audits. We confirmed that there were no major non-conformities requiring immediate administrative guidance. Although 15 minor non-conformities were revealed, actions to correct them are underway according to plan.

(8) Environmental Education and Awareness Promotion

The Hitachi Metals Group has set up training systems as part of our EMS, and has established clearly defined roles for companywide training and individual factory-level training for further improvement of the employees' environmental awareness as well as the enhancement of knowledge and skills relevant to each workplace.

Environmental Training Systems

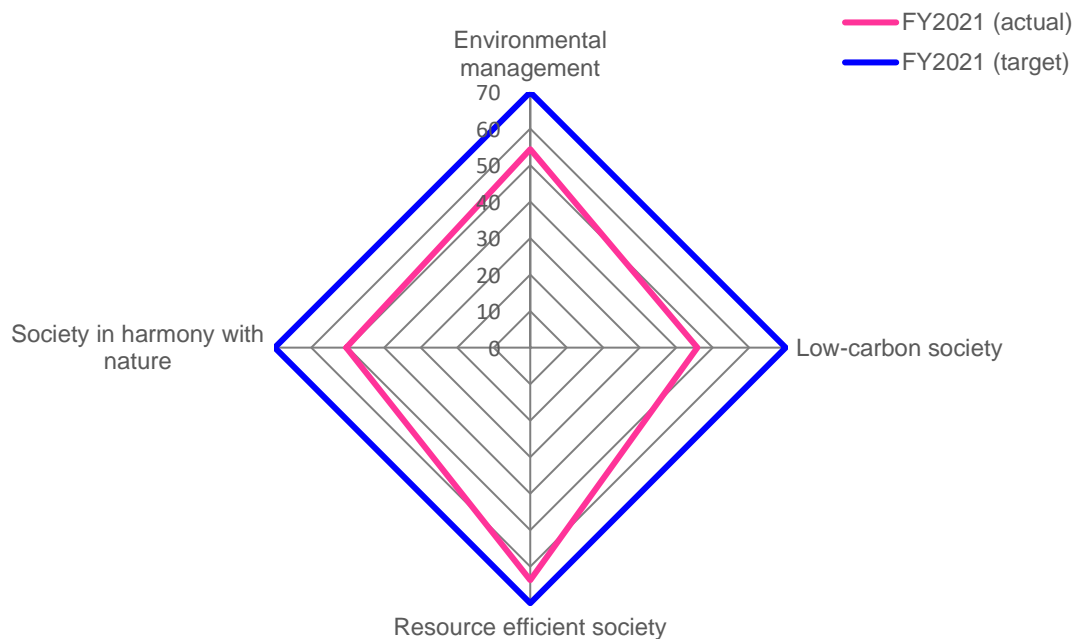
	Target		Description
General education	All employees	e-learning	Eco-mind training (Hitachi Metals Group)
	On-site employees	On-site environmental education	General education on ISO14001 and environmental management performed by general employees
Professional education	New supervisor	Education for new supervisor	Environmental issues and workplace responsibilities
	Environmental Internal Auditors	Environmental Internal Auditor training	Environmental laws and regulations, EMS recognition and environmental skills
	Environmental officers	Environmental officer training	Education for staff responsible for environmental affairs, and comprehensive risk management
	Legally qualified personnel	Qualification-based training	Education to develop legally qualified personnel (including external training)

(9) Environmental Management Level “GREEN21-2021” Activities

The Hitachi Group promotes “GREEN21” as a system to assess point scores for ongoing improvement in environmental activities and for raising the level of activity. The Group revised GREEN21 for the fifth time in fiscal 2019, and pursues activities under GREEN21-2021 during the three years from fiscal 2019 to fiscal 2021.

In GREEN21-2021, activities are categorized under the four items in the table below, and are assessed and scored in accordance with the achievement status of the Environmental Action Plan. Additional points are provided for upward revision of targets, external awards, etc.

In fiscal 2021, the Hitachi Metals Group scored 213 Green Points (GPs) in the four categories, failing to achieve our target of 280 GPs. We will continue our efforts to achieve the targets of the Environmental Action Plan and make further progress.



No.	Category (Rating Form)	Main Rating Contents
1	Environmental management	Enhancement of global environmental management; enhancement of management at small and medium-sized sites; HR development for environmental management; legal compliance; decreasing number of complaints
2	Low-carbon society	CO ₂ emissions reduction amount/rate related to products and services Improvement of CO ₂ emissions per production unit Reduction of CO ₂ emissions attributable to transportation (shippers)
3	Resource efficient society	Improvement rate of water usage per production unit; reduction of water usage Response to water-related risks Reduction of waste valuable resources; improvement of such resources per unit; waste landfill rate; raw material usage status; product recycling implementation status
4	Society in harmony with nature	Improvement rate of per unit rate of chemical substances released into the atmosphere Activities for preservation of ecosystems

GREEN21-2021 Targets and FY2020 Achievement

(FY)	FY2019	FY2020	FY2021
Target	140	210	280
Actual	166	180	213

(10) The State of External Communications about the Environment

(a) Participation in Exhibitions

The Hitachi Metals Group participates in various exhibitions and introduces its environmentally conscious lineup of technologies that help customers make their products more efficient, compact, and lightweight, and products that feature longer-life performance. The Group tries to show how its products contribute to the reducing of environmental burden.

Main Exhibitions in which the Hitachi Metals Group Participated (Fiscal 2021)

Program date	Exhibition name (location)	Major items on display
May 26–July 30, 2021	Automotive Engineering Exposition2021 (ONLINE)	Exhibited advanced technologies and products that contribute to the evolution of EVs, from five categories: motor; power electronics-related; battery-related materials; light weight; and new manufacturing technology, a new category created this year.
Online: June 8–July 16, 2021 Physical exhibition: June 23–25, 2021	TECHNO-FRONTIER 2021 (Tokyo Big Sight)	Exhibited advanced materials and technologies, including lightening technologies, that support the advancement of motors and electronic components, from five categories: motor-related materials; inverter/rechargeable battery-related materials; housing-related functional components and equipment; FA/motion engineering; and new manufacturing technology, a new category created this year.
December 8–10, 2021	1st Material Expo (Makuhari Messe)	Exhibited new materials developed by applying material technologies essential to create higher value added products, such as environmentally friendly products and materials that enable reduced workloads for maintenance and other duties.

External Awards

The Hitachi Metals Group's products and environmental activities won the following external awards in fiscal 2020 for their contribution to energy conservation and to reductions in size and weight.

Major External Environmental Awards (Fiscal 2021)

Business division/group company	Product/technology/project awarded	Title of award	Awarding body	Reasons for award
(CD) Electric Wire & Cable Business Unit (Wires and Cables)	Medical Silicone Cable SiIMED®	2021 Super Monodzukuri Parts Award Nippon Brand Award	MONODZUKURI Nippon Conference Nikkan Kogyo Shimbun	The product was awarded for its high sliding performance, which was made possible by developing a unique surface coating process. This excellent function is expected to help ensure safe and secure medical services, particularly by preventing hospital acquired infections.
(HMK) Pyeongtaek Works	Corporate activities that have contributed to environmental conservation	Environmental Enterprise Excellence Award	Pyeongtaek Industrial Park Corporation	The organization was awarded for its highly effective environmental conservation activities, which have been enabled by building systematic environmental management structures to establish the autonomous operation of management systems. With these systems, the organization makes ongoing efforts to prevent water leakage and reduce air pollutant emissions.

(11) Consideration for the Preservation of Biodiversity

The Hitachi Metals Group's ecosystem preservation measures include tree planting and forest conservation activities, cleanup activities in areas surrounding plants, and environmental education.

① Examples of Major Ecosystem Preservation, Tree Planting, Forest Conservation, and Social Contribution Activities



Tree-planting activities (Hitachi Cable (Suzhou))



Cleanup activities at Moka City Shizen-fureai Park (Moka Works,



Cleanup activities around the Kanzaki River (Suita Works,



Green curtain activities (Santoku Corporation) *Seedlings planted (left);