



Sustainability

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Editorial Policy

TOCALO is a specialized manufacturer of surface treatments focused on thermal spraying. We believe that it is important for us to contribute to society by maximizing the benefits of the various functions of coatings, including saving resources, saving energy, and reducing environmental impact, as well as to progress toward achieving carbon neutrality, including reducing CO2 emissions. This report has been prepared to present up-to-date information (as of August 2022) in an easy-to-understand manner about TOCALO and its consolidated subsidiaries with a focus on the activities of the parent company for fiscal 2021 (April 2021 to March 2022).



We support sustainable development goals (SDGs).

Message from the president

We are using our unique expertise in manufacturing every way we can to help create a sustainable society.

ESG management that values manufacturing

I am Kazuya Kobayashi, and I am honored to introduce myself upon my appointment on June 23, 2023 as Representative Director, President and Executive Officer of TOCALO.

TOCALO is thoroughly engaged in applying ESG-focused management toward our vision of creating a “bright future for people and nature,” and I intend to put all of my effort into continuing this drive because I believe ESG initiatives are extremely important.

In my career, I have served as the General Manager of two plants and the General Manager of the Production Headquarters, and I would like to use this experience to put particular focus on how we can use manufacturing to contribute to a sustainable society.

Manufacturing requires highly dedicated human resources. For our employees that are committed fully to their jobs at all of our worksites, I intend to invest fully to enhance production efficiency and improve the work environment. Management and employees will share ideas so we can continue delivering consistent quality and better products to our clients.

I particularly want to emphasize the pride of being a craftsperson involved in manufacturing, and the expertise each employee has in the work they do. Rather than simply pursuing efficiency by mechanically mass-producing products, we put care and effort into our work. Some defects can be prevented with just five seconds of care. With just a little thought, we can deliver heartfelt products to our customers. I learned this from the generation before me, and I want to pass this down to the generation that follows me.



Kazuya Kobayashi
President and Representative
Director

Connecting individual employee growth to the Company's growth

I also want our employees to have clear goals for themselves and to know what they need to do so they can attain their goals. In addition, I would like them to think carefully about how pursuing their goals can contribute to the Company.

To develop that caliber of human resources, we will invest all that is necessary and aim to be a company that is richly diverse and respects each person's opinion. We will also allow flexible workstyles, such as remote work, and create a work structure that can accommodate individual workstyle proposals.

Through measures like these we are creating an environment that supports the career ambitions of all employees and that will lead to overall sustainable growth for TOCALO.

Low environmental impact manufacturing

We are also working to reduce the environmental impact of manufacturing operations. I have been promoting inter-plant initiatives since fiscal 2021 when I was General Manager of the Production Headquarters. One initiative was to take successful energy-saving initiatives that were being implemented at individual plants and share that know-how with all of our plants. We will continue to incorporate best practices in this way to further reduce our overall environmental impact.



Electricity accounts for 95% of the energy that TOCALO consumes, so reducing our power consumption will be essential. Three of the major consumers of electricity are compressors, dust collectors, and cooling equipment. While maintaining our standard of quality, we are working to improve the efficiency of our thermal spraying technology, which will save energy by shortening the time the equipment is in operation.

We have also set environmental performance targets, including cutting Scope 1 and 2 greenhouse gas emissions to 46% of the fiscal 2013 level by fiscal 2030 on a consolidated basis. By purchasing electricity derived from renewable energy sources, we reached the 46% reduction mark on a non-consolidated basis in fiscal 2022. To reach our target, however, we have to do more than just purchasing power from renewable energy sources. We intend to pursue every avenue, including increasing our in-house power generation, to achieve our Group target.

Joining with local industries for further growth in the future



Any industry can use our technology with any material. Renewable energy generation equipment and semiconductor manufacturing equipment are only the beginning. We are not restricting our focus to specific industries, but are looking into a wide range of industries for applications for our surface modification technology.

At this moment, I am strongly interested in creating strong ties between our Company and local communities. We have manufacturing sites participating in industries all across Japan, and I would like each site to reflect the characteristics of their region. By strengthening these connections, the growth of our business can revitalize a region and help ensure our business continuity.

We will achieve sustainable growth by valuing the interrelation of our employees, the environment, and local communities and by remembering that the small extra effort of dedicated craftsmanship may seem inefficient or unnecessary but is the heart of manufacturing.



Aiming to be a 100-year company and the perennial company of choice.

Hiroshi Goto
Director,
Managing Executive Officer; General Manager, Administrative Headquarters

I participate in management as General Manager of the Administrative Headquarters and as a Director. Our company has thrived for 72 years, but for us to reach 100 years, it is essential that we take a long-term view, at the core of which is our sustainability.

When we unveiled our medium-term management plan in November 2021, we also presented our long-term vision for a “bright future for people and nature.” Now, in the plan’s second year, looking back on the past, the top-down approach within the Company has been a success and is steadily producing results. However, I feel that we are still only halfway through the process in terms of every employee getting behind the plan and putting it into action. We are therefore putting together a new training program that we will implement throughout the Company to set in motion a bottom-up approach from employees.

We have identified five items as issues of materiality that are essential to address in order to fulfill our long-term vision. Among the five, the most critical materiality is “Advanced coating and latent market development.” Our business model is not to mass-produce top-selling products, but to make products to order. We must continue to develop new coating technologies and cultivate new markets for society to keep needing our company, and for us to survive.

In recent years, we have been actively investing capital, supported by our strong sales for semiconductor manufacturing equipment, and we expect these conditions to continue for several more years. However, our ability to continue to grow our business when these favorable conditions come to an end will depend on our ability to develop advanced coatings and cultivate latent markets. We must devote all of our efforts to developing coatings that fully meet society’s needs and expanding their applications worldwide.

We have also stepped up how we use our business activities to contribute to addressing environmental issues. We are seeing steady results from the KPIs we set for the value of orders in the environmental and energy fields. While working to reduce the environmental impact of our manufacturing activities, we will also continue to develop coatings that improve the environmental performance of various industries.

Another key materiality is cultivating and activating diverse human resources. We established the Diversity Promotion Committee in July 2020 and the Diversity Promotion Division in February 2022, and I feel that the Company’s systems and mechanisms for strengthening the diversity of human resources have been put into place in the past two years. I also feel that the understanding that a wide variety of human resources, including the active participation of women, is necessary for the Company’s long-term growth is steadily taking root in the Company.

Beginning in fiscal 2022, we launched a “global experience” program to develop human resources who will be the core of our worldwide business expansion and an internal “DX human resources recruitment” program in which we are selecting and training individuals in data and digital technologies that will lead to future innovation. We will continue to advance programs toward new directions and growth as we cultivate the human resources we will need for the Company’s future.

In April 2023, I began visiting all of our factories and talking to employees to get a direct “feel” for how our sustainability strategies and measures are permeating our activities and what our employees think about them. In talking with younger employees, they reminded me of an eye-opening fact that, to them, the year 2051, when we will become a 100-year company, is not a point in the distant future, it’s a point along the path to their future.

I will do my utmost to fulfill my responsibility to deliver to the next generation a TOCALO that will continue to be the “company of choice” by society in our 100th year and beyond for the next 30 and 50 years.

Long-term vision and materiality

Long-term vision and mission

We are pursuing solutions for social issues and improving our corporate value as a group in line with our Vision (Goal for 2030) and Mission.

Vision (Goal for 2030)

Contributing to a bright future for people and nature

Mission

Enhance corporate value through continuous growth focused on ESG

- Provide high quality and high value-added products (coatings) to customers
- Be always trusted by customers, shareholders, business partners, and local residents
- Contribute to environmentally friendly technologies
- Be a company that all employees and their families are proud of, and create a safe working environment where employees enjoy working




Materiality and KPI

We have identified specific issues (materiality) to focus on to fulfill our Vision (Goal for 2030) and Mission.

We identified the points of materiality by first reviewing international standards, such as the GRI Standards, and then selecting possible candidate issues while considering megatrends, social issues, and the requirements and expectations of stakeholders.

We then considered them in relation to the strategies of the medium-term management plan and selected the issues that were in accord with the medium- and long-term direction of our business. The Board of Directors approved the following five items as issues of materiality.

Furthermore, we have set key performance indicators (KPIs) to manage our materiality.

Materiality	Main initiatives	Related information
1. Advanced coating and latent market development	Invest with a focus on developing advanced coatings <ul style="list-style-type: none"> ● Develop high-performance coatings for the foundational elements of people’s lives (such as digitalization, infrastructure, medical care, agriculture) ● Develop coatings that help proliferate and improve the efficiency of renewable energy power generation (such as wind power, hydropower, geothermal power, storage batteries) ● Develop coatings that help customers reduce greenhouse gas emissions (by supporting non-fossil fuels, recycling equipment) 	Solutions  Surface modification technology's ability to protect the future global environment  Quality management and customer satisfaction 
	Offer optimal solutions to customers <ul style="list-style-type: none"> ● Grow from a supplier to a partner ● Set up projects in priority areas ● Foster experts in problem-solving 	

Materiality	Main initiatives	Related information
<p>2. Environmental impact reduction measures</p>	<p>Advance decarbonization (carbon neutrality)</p> <ul style="list-style-type: none"> ● Investigate thermal spraying methods that do not use fossil fuel ● Reduce power consumption by improving processing methods ● Use renewable energy 	<p>Environmental management ▶</p> <p>Material balance ▶</p> <p>Targets and results ▶</p> <p>Climate change measures ▶</p> <p>Waste reduction and environmental conservation ▶</p>
	<p>Measures to reduce waste and protect the environment</p> <ul style="list-style-type: none"> ● Reduce, recycle, and properly dispose of waste ● Understand and improve water and air pollution conditions ● Reduce the use of harmful substances 	
<p>3. Manufacturing sophistication and quality improvement</p>	<p>Improve manufacturing process sophistication and efficiency</p> <ul style="list-style-type: none"> ● Promote automation and IoT ● Begin practical application of new coating formation technology ● Create smart on-site construction 	<p>Quality management and customer satisfaction ▶</p>
	<p>Reinforce the quality control system</p> <ul style="list-style-type: none"> ● Establish and promote product performance assurance ● Implement quality controls systems (such as ISO) ● Construct a Product Qualification Plan 	

Materiality	Main initiatives	Related information
4. Cultivate and activate diverse human resources	Form a medium- and long-term human resource development plan <ul style="list-style-type: none"> ● Develop human resources and technical training ● Methodically develop global human resources 	Human resource development ▶ Occupational safety and health ▶ Diversity ▶
	Create a comfortable work environment <ul style="list-style-type: none"> ● Fully engage in safety first ● Promote diversity (value the talents of women, persons with disabilities, mid-career employment) ● Promote workstyle reform 	
5. Thorough compliance (acting in accordance with corporate ethics)	Lay the management foundation for a long-surviving company <ul style="list-style-type: none"> ● Act in accordance with corporate ethics (social mores, ethics and morals, the environment, local community contribution) ● Actively promote ESG initiatives ● Promote engagement with domestic and foreign investors ● Fully comply with the Corporate Governance Code 	Compliance ▶ Corporate governance ▶

1. Advanced coating and latent market development

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
<p>Invest with a focus on developing advanced coatings</p> <ul style="list-style-type: none"> Develop high-performance coatings for the foundational elements of people's lives (such as digitalization, infrastructure, medical care, agriculture) Develop coatings that help proliferate and improve the efficiency of renewable energy power generation (such as wind power, hydropower, geothermal power, storage batteries) Develop coatings that help customers reduce greenhouse gas emissions (by supporting non-fossil fuels, recycling equipment) 	No. of patents owned	(1) Domestic patents (2) Overseas patents	Total: 280	Total: 262	Total: 251
	No. of patent applications	(1) Domestic applications (2) Overseas applications (including Patent Cooperation Treaty applications)	Total: 30	Total: 33	Total: 31
	Ratio of development spending to sales (consolidated)	(R&D spending + technical development spending) ÷ sales x 100	5%	4.7%	5.0%

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
Offer optimal solutions to customers <ul style="list-style-type: none"> • Grow from a supplier to a partner • Set up projects in priority areas • Foster experts in problem-solving 	Financial value of orders received in environmental field (1) Environmental and energy equipment (2) Repaired and refurbished products	Financial value of orders received for surface treatment processing in the following areas: (1) Environmental and energy equipment (devices, facilities, and services relating to the prevention of environmental pollution, measures to counter global warming, processing of waste and effective use of resources, and conservation of the natural environment) (2) Repaired and refurbished products (items suited to reuse and refurbished use)	(1) 2,000 million yen (2) 8,500 million yen Total: 10,500 million yen	(1) 1,326 million yen (2) 6,401 million yen Total: 7,727 million yen	(1) 891 million yen (2) 6,117 million yen Total: 7,008 million yen
	Ratio of overseas sales (consolidated)	(1) Sales to foreign companies (2) Royalties received from overseas (3) Sales of overseas subsidiaries	Total: 25%	Total: 23.3%	Total: 21.1%

2. Environmental impact reduction measures

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
<p>Advance decarbonization (carbon neutrality)</p> <ul style="list-style-type: none"> Investigate thermal spraying methods that do not use fossil fuel Reduce power consumption by improving processing methods Use renewable energy 	Greenhouse gas emissions (Scope 1, 2)	Non-consolidated Scope 1 and 2 emissions (Fiscal 2013 emissions: 14,736 t-CO ₂)	7,900 t-CO ₂ (Achieved less than 54% of fiscal 2013 emissions)	6,990 t-CO ₂	17,450 t-CO ₂
<p>Measures to reduce waste and protect the environment</p> <ul style="list-style-type: none"> Reduce, recycle, and properly dispose of waste Understand and improve water and air pollution conditions Reduce the use of harmful substances 	Ratio of waste recycled	Recycled volume ÷ (volume of waste + recycled volume) x 100	40%	33.1%	30.7%

3. Manufacturing sophistication and quality improvement

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
<p>Improve manufacturing process sophistication and efficiency</p> <ul style="list-style-type: none"> Promote automation and IoT Begin practical application of new coating formation technology Create smart on-site construction 	Amount of capital investment contributing to improving sophistication and efficiency of manufacturing process	Capital investment for promotion of automation and IoT and practical application of new coating formation technology	Under construction	—	—
<p>Reinforce the quality control system</p> <ul style="list-style-type: none"> Establish and promote product performance assurance Implement quality controls systems (such as ISO) Construct a Product Qualification Plan 	No. of employees passing QC test	No. of employees passing test (Grade 3 or higher) relating to quality control approved by the Japanese Society for Quality Control (total number)	60 persons	46 persons	29 persons
	No. of employees possessing qualifications as nondestructive inspection engineers	No. of employees possessing qualifications as nondestructive testing engineers approved by the Japanese Society for Non-Destructive Inspection (1) Penetrant testing (2) Ultrasonic testing	Total: 25 persons	Total: 18 persons	Total: 15 persons

4. Cultivate and activate diverse human resources

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
Form a medium- and long-term human resource development plan <ul style="list-style-type: none"> Develop human resources and technical training Methodically develop global human resources 	No. of technology-related external presentations	(1) Presentations to professional societies (2) Published essays and commentary articles	Total: 25	Total: 28	Total: 18
	No. of employees possessing qualifications as technicians	No. of employees possessing the following national qualifications (total number): (1) Spraying technician (2) Machining technician (Grade 2 or higher) (3) Metal heat treatment technician (Grade 3 or higher)	Total: 240 persons	Total: 192 persons	Total: 178 persons
	Educational spending per employee	Annual educational spending ÷ no. of employees at end of term (including temporary employees)	80,000 yen	63,200 yen	54,200 yen







Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
Create a comfortable work environment <ul style="list-style-type: none"> Fully engage in safety first Promote diversity (value the talents of women, persons with disabilities, mid-career employment) Promote workstyle reform 	Rate of frequency of occupational accidents	No. of deaths and injuries due to occupational accidents ÷ total no. of actual working hours x 1,000,000	Aiming for zero	1.80	0.62
	Severity rate of occupational accidents	Total no. of working days lost ÷ total no. of actual working hours x 1,000	Aiming for zero	0.03	0.00
	Ratio of female full-time employees	No. of female full-time employees ÷ total no. of full-time employees x 100	13%	11.0%	9.5%
	Ratio of female managers	No. of female managers ÷ total no. of managers x 100	5%	2.3%	1.4%
	Ratio of men taking childcare leave	No. of men taking childcare leave ÷ no. of men eligible for childcare leave x 100	90%	68.0%	31.3%

5. Thorough compliance (acting in accordance with corporate ethics)

Main initiatives	KPI	Definition	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
<p>Lay the management foundation for a long-surviving company</p> <ul style="list-style-type: none"> • Act in accordance with corporate ethics (social mores, ethics and morals, the environment, local community contribution) • Actively promote ESG initiatives • Promote engagement with domestic and foreign investors • Fully comply with the Corporate Governance Code 	Ratio of employees receiving compliance training	No. of employees receiving compliance training ÷ no. of eligible employees x 100	100%	100% (Conducted 3 times)	—



We have established an environmental management system at all of our sites and are making continuous improvements based on proper operation.

Basic philosophy  Promotion of ISO14001  Scope of application 
Compliance with environment-related laws and regulations  Environmental accounting 
Environmental Education and Training 

Basic philosophy

Basic environmental philosophy

TOCALO recognizes that “continuously improving the global environment and preventing pollution” is one of the most important challenges of our time. Our basic environmental philosophy is to use surface modification technologies to save resources, save energy, and reduce our environmental impact to protect the global environment and contribute to society.

Environmental policy (Revised: June 23, 2023)

Through our activities, products, and services focused on surface modification technologies, TOCALO will strive to continuously improve the environment based on the following policy in accordance with our basic environmental philosophy.

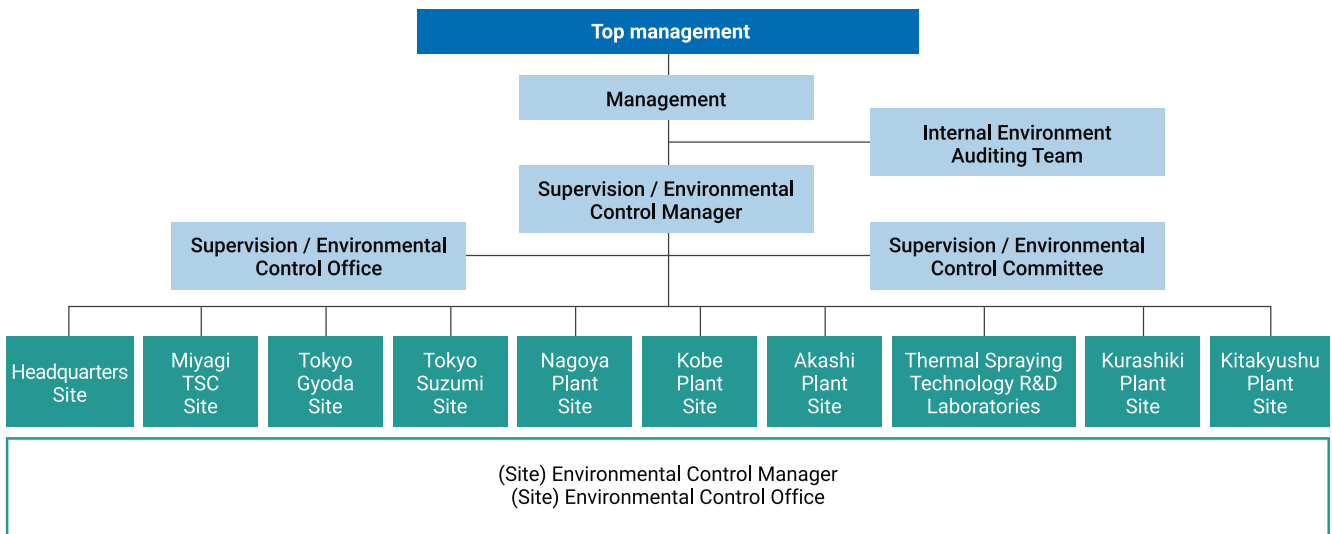
1. Constantly recognize the environmental impact of our activities, products, and services, and establish, implement, and maintain an environmental management system.
2. Commit ourselves to preventing environmental pollution, using sustainable resources, and preventing climate change.
3. Commit ourselves to the continuous improvement of our environmental management system.
4. Comply with environmental laws and regulations relating to our operations, products and services, as well as other requirements to which we agree.

5. Based on this environmental policy and the environmental impact of our activities, products, and services, set environmental targets and engage in activities based on the following themes to contribute to the improvement of the environment:

- (1) Energy and resource conservation in business activities
- (2) Environmental contribution through promotion of business activities

To successfully implement this policy, we will set environmental targets and contribute to environmental conservation by bringing together the strengths of all our divisions and all levels of our workforce.

Environmental management organization structure



Promotion of ISO14001

Certified at all sites

We are continually improving our environmental management system to contribute to society and protect the global environment by conserving resources and energy and reducing our environmental impact.

Since acquiring ISO 14001 certification at all our sites in 2012, we have maintained our 100% certification rate even when relocating or launching new sites.

Status of ISO 14001 certification (certification number JQA-EM2253) (In order of registration date)

Acquisition of certification Plants and research laboratories	Expansion of certified sites
Headquarters	March 2002
Thermal Spraying Technology R&D Laboratories	March 2002
Kitakyushu Plant	September 2005
Nagoya Plant	September 2006
Kobe Plant	September 2006
Tokyo Plant Gyoda Workshop	September 2007
Kurashiki Plant *Name changed to Kurashiki Plant in 2022 upon relocation of the former Mizushima Factory.	September 2007
Akashi Plant	September 2009
Miyagi Technical Service Center	August 2012
Tokyo Plant Suzumi Workshop	August 2018

History of ISO14001 certification

Close history of ISO14001 certification



March 2002

The Headquarters and Thermal Spraying Technology R&D Laboratories were the first sites in TOCALO to acquire ISO14001 certification.

October 2004	The Thermal Spraying Technology R&D Laboratories relocated from Higashinada-ku, Kobe City to the Minami-Futami Industrial Park, Akashi City.
September 2005	The registered address of the Thermal Spraying Technology R&D Laboratories changed to the new address. The Kitakyushu Plant was the first plant to acquire certification.
September 2006	The Nagoya Plant, Kobe Plant, and Akashi No. 3 Plant acquired certification.
September 2007	The Tokyo Plant (Gyoda Workshop) and Mizushima Plant acquired certification.
September 2009	The Akashi Plant acquired certification. All major TOCALO sites were certified.
October 2010	Akashi Plant No.3 relocated and integrated with the Akashi Plant.
July 2011	The Miyagi Technical Service Center was established in Miyagi Prefecture.
September 2011	Each sales office acquired certification. Certification of Akashi Plant No.3 was cancelled.
August 2012	The Miyagi Technical Service Center acquired certification. All TOCALO sites were certified.
August 2014	The Kobe Plant relocated from Higashinada-ku, Kobe City to Nishi-ku, Kobe City. The former plant, where some production processes remained, became the Fukae branch office of the Kobe Plant.
December 2014	The Akashi-Harima Plant acquired and placed under the control of the Akashi Plant.
September 2015	The registered address of Kobe Plant changed to the new address.

February 2016	The Nagoya Plant relocated from Midori Ward, Nagoya City to Tokai City, Aichi Prefecture.
September 2016	The Akashi-Harima Plant acquired certification following the start of full-scale operations.
	The registered address of the Nagoya Plant changed to the new address.
August 2017	The Headquarters relocated from Fukae, Higashinada-ku, Kobe City to Minatojima (Port Island), Chuo-ku, Kobe City.
September 2017	The registered address of the Headquarters changed to the new address.
August 2018	Tokyo Plant No.2 (Suzumi Workshop) was newly certified following the partial relocation (Gyoda Workshop).
July 2020	The Kita-Kanto Sales Office relocated.
August 2020	The registered address of Kita-Kanto Sales Office changed to the new address.
April 2022	The registered name of the Mizushima Plant changed to Kurashiki Plant and the registered address changed from Matsue, Kurashiki City to Unozu, Kojima, Kurashiki City The former Mizushima Plant remained a sub-plant of the Kurashiki Plant
September 2022	The registered name of Tokyo Plant (Gyoda Office) changed to Tokyo Plant Gyoda Workshop.
	The registered name of Tokyo Plant No.2 (Suzumi Workshop) changed to Tokyo Plant Suzumi Workshop.
	The registered name of Mizushima Plant changed to Kurashiki Plant and the registered address changed to the new address.

Scope of application

The scope of application of the environmental management system applies to the business activities of TOCALO Co., Ltd.

(1) Target organization

TOCALO Co., Ltd.

Headquarters / Miyagi Technical Services Center / Tokyo Plant Gyoda Workshop / Tokyo Plant Suzumi Workshop / Nagoya Plant / Kobe Plant / Akashi Plant / Thermal Spraying Technology R&D Laboratories / Kurashiki Plant / Kitakyushu Plant

(2) Certified activities

R&D, manufacturing, sales, and after-sales service of surface modification products using thermal spray and peripheral technologies

(3) Location (physical scope) and scope of activities

The contents are in accordance with matters registered with JQA.

Organization name	Address	Scope of activities
①Headquarters, TOCALO Co., Ltd.	6-4-4 Minatojima Minamimachi, Chuo-ku, Kobe, Hyogo	Corporate management and support operations at the Headquarters
②Miyagi Technical Service Center (Miyagi TSC), TOCALO Co., Ltd.	21-11 Kitanaka Bessho, Kawauchi, Osato-Cho, Kurokawa-Gun, Miyagi	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies
Yamanashi Sales Office, TOCALO Co., Ltd.	1-1-24 Iida, Kofu, Yamanashi	Sales and after-sales service of surface modification products using thermal spray and peripheral technologies

Organization name	Address	Scope of activities
③Tokyo Plant (Gyoda Workshop), TOCALO Co., Ltd.	1-1-1 Gyoda, Funabashi, Chiba	Manufacture, sale, and after-sales service of surface modification products using thermal spray and peripheral technologies
④Tokyo Plant No.2 (Suzumi Workshop), TOCALO Co., Ltd.	606-5 Suzumi-cho, Funabashi, Chiba	Manufacture, sale, and after-sales service of surface modification products using thermal spray and peripheral technologies
Kanagawa Sales Office, TOCALO Co., Ltd.	1-14-20 Shinyokohama, Kohoku-ku, Yokohama, Kanagawa	Sales and after-sales service of surface modification products using thermal spray and peripheral technologies
Kita-Kanto Sales Office, TOCALO Co., Ltd.	2F, 1086-45 Shimohamada-cho, Ota, Gunma	Sales and after-sales service of surface modification products using thermal spray and peripheral technologies
⑤Nagoya Plant, TOCALO Co., Ltd.	33-3 Nibanwarishimo, Nawamachi, Tokai, Aichi	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies
Shizuoka Sales Office, TOCALO Co., Ltd.	Fujioji Bldg.102, 411-1, Motoichiba, Fuji	Sales and after-sales service of surface modification products using thermal spray and peripheral technologies
⑥Kobe Plant, TOCALO Co., Ltd.	1-5 Mitsugaoka, Nishi-ku, Kobe, Hyogo	Manufacture and after-sales service of surface-modified products using thermal spray and peripheral technologies
⑦Akashi Plant, TOCALO Co., Ltd.	14-1, Minamifutami, Futami-cho, Akashi, Hyogo	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies
Akashi Plant (Akashi-Harima Plant), TOCALO Co., Ltd.	15-1 Higashi-Shinjima, Harima-cho, Kako-gun, Hyogo	Manufacture and after-sales service of surface modification products using thermal spray technologies

Organization name	Address	Scope of activities
⑧Thermal Spraying Technology R&D Laboratories, TOCALO Co., Ltd.	14-3 Minamifutami, Futami-Cho, Akashi, Hyogo	Research and development of surface modification products using thermal spray and peripheral technologies
⑨Kurashiki Plant, TOCALO Co., Ltd.	2030-28, Kojimaunotsu, Kurashiki, Okayama	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies
Mizushima Plant, TOCALO Co., Ltd.	2-38, 2-chome, Matsue, Kurashiki City, Okayama	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies
⑩Kitakyushu Plant, TOCALO Co., Ltd.	1-48 Torigoe-cho, Kanda-cho, Kyoto-gun, Fukuoka Prefecture	Manufacture, sale, and after-sales service of surface modification products using thermal spray technologies

(4) Scope of impact

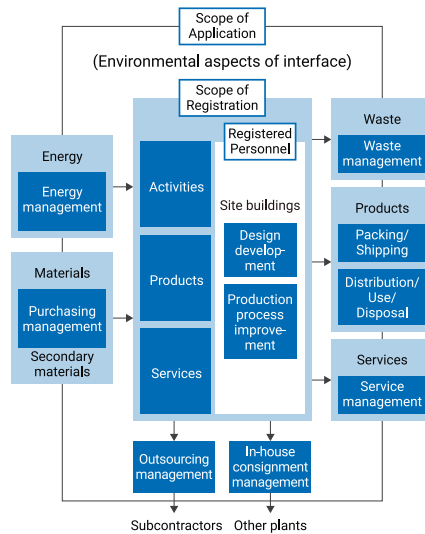
Within the site

1. Design and development
2. Improvement of production processes

Environmental aspects of the interface are as follows.

1. Energy management
2. Purchasing management
3. Outsourcing Management
4. In-house subcontracting management of other plants
5. Waste management
6. Distribution, use, and disposal of products after use
7. Service management

Scope of potential impact



Compliance with environment-related laws and regulations

Identifying laws and regulations to be observed and confirming the status of compliance

TOCALO compiles a list of environmental laws and regulations to be observed and regularly checks the status of compliance. Details of compliance include notifications to the government, appointments, and regulatory values.

To date, we have not been subjected to fines or punishment in relation to environmental laws.

Major environmental laws and regulations related to TOCALO's business

Waste Management and Public Cleaning Law

Air Pollution Control Law

Water Pollution Control Law

Sewerage Law

Soil Contamination Countermeasures Act

Septic Tank Law

Noise Regulation Law

Vibration Regulation Law

Offensive Odor Control Law

Factory Location Law

Act on Rational Use and Proper Management of
Fluorocarbons

Act on Confirmation, etc. of Release Amounts of
Specific Chemical Substances in the Environment
and Promotion of Improvements to the
Management Thereof ("PRTR Law")

Poisonous and Deleterious Substances Control
Law

Fire Service Act

Industrial Safety and Health Act

High Pressure Gas Safety Act

Law Concerning the Promotion of the Measures to
Cope with Global Warming

Act on Rationalizing Energy use and Shifting to
Non-fossil Energy

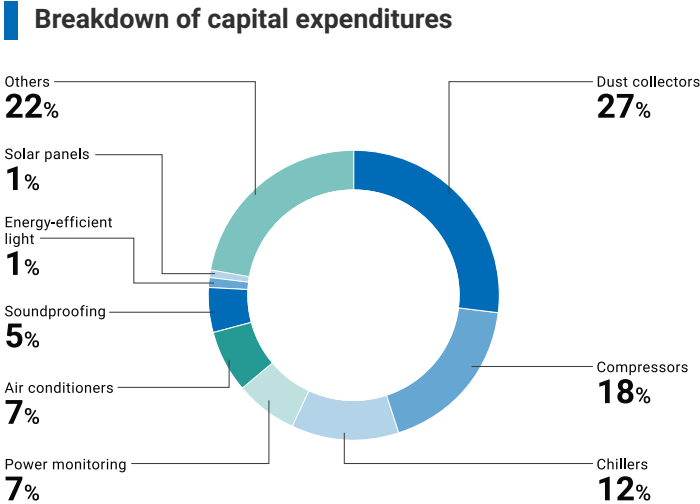
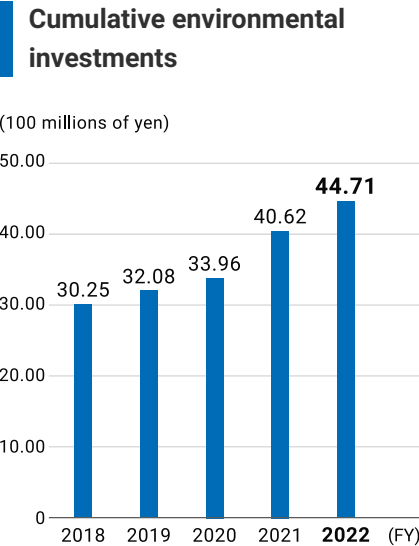
Act on Promotion of Resource Circulation for
Plastics

Environmental accounting

We focused on investing in environmental facilities, such as wastewater and waste gas treatment systems, and noise-prevention measures at new plants.

The graph below shows the cumulative amount of environment-related capital expenditures. Our main environmental facilities include dust collectors that do not emit dust, soundproofing equipment that shields noise from dust collectors, and energy-saving equipment.

In fiscal 2022, we carried out a range of actions for energy saving, including installing electricity monitoring meters and high-efficiency compressors.



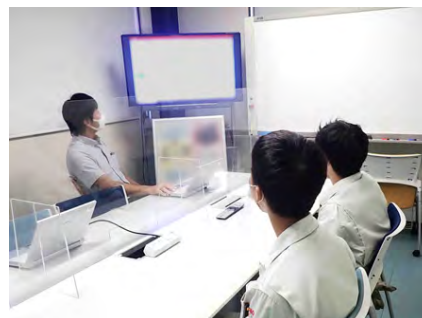
Environmental education and training

We provide general education for all employees.

We systematically conduct education and training on the operation of the environmental management system and how to respond to emergencies, as required by law.

The main themes are "Environmental policy," "Significance of Operating an Environmental Management System," and "Waste Handling," which are taught with initiatives in each workplace.

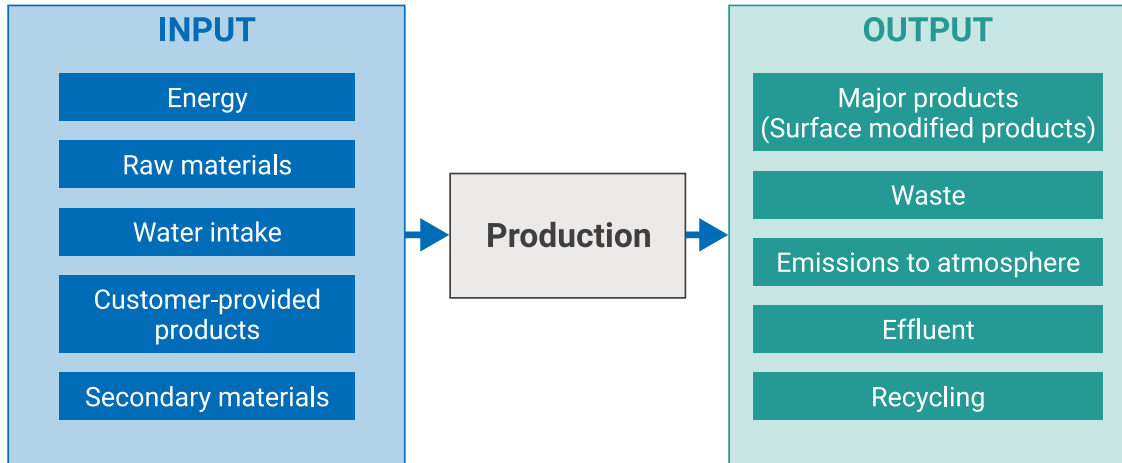
Through such education and training, we are working to raise awareness and the level of understanding.



Environmental training

Material balance

We strive to reduce environmental impact by ascertaining and analyzing the actual status of how much resources and energy are used in our production processes and what kind of environmental impacts are generated.



Input (Energy, Raw materials, Water intake)

Energy consumption volume

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Electricity (MWh)	39,817	40,155	39,825	42,491	42,891
Kerosene (kl)	217	229	209	203	188
LPG (kg)	12,807	13,161	10,615	16,014	16,188
Diesel (kl)	34	31	31	32	26
Gasoline (kl)	100	108	101	88	88
City gas (m ³)	110,227	128,768	160,944	165,732	149,164

Trend regarding volume of use of raw materials

Note: Not including substrates

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Thermal spray materials (t)	291.5	325.2	297.2	271.9	298.7
Other materials (t)	65.8	74.0	59.2	94.3	113.1

Note: Due to partial omission in aggregating data for other materials, performance data has been revised for the period from fiscal 2018 to fiscal 2021.

Trend regarding volume of water intake

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Clean water (m ³)	63,525.0	63,610.0	65,850.0	69,552.0	78,410.0
Pure water (m ³)	29.8	19.8	18.1	16.5	18.0
Groundwater (m ³)	0.0	0.0	0.0	0.0	0.0

Output (Waste, Emissions to atmosphere, Effluent, Recycling)

Trend regarding volume of waste emissions

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
General business waste (t)	59.7	70.0	59.3	57.6	61.2
Total industrial waste (t)	1,776.1	1,840.6	1,959.5	2,113.5	2,161.4

Trend regarding volume of emissions to atmosphere

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
PRTR Law Class 1 Designated Chemical Substances (t)	3.1	2.5	1.0	1.0	1.3

Note: Due to partial omission in aggregating data for fiscal 2021 performance, figures have been revised.

Effluent volume

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Sewage (m ³)	47,613.0 (2,330.4)	47,625.0 (2,528.0)	49,338.0 (1,640.1)	54,776.0 (1,939.4)	60,810.0 (1,518.1)
Seawater (m ³)	11,283.0	10,434.0	10,984.0	9,193.0	9,710.0

Note: The numbers in parentheses are the volume of factory effluent that has undergone wastewater processing

Note: Wastewater discharged from sites using septic tanks is defined as "seawater."

Recycling volume


	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Metal scraps (t)	145.8	90.6	108.4	90.1	111.7
Thermal spray material waste (t)	24.1	28.6	27.4	21.2	15.1
Blasting material waste (t)	569.1	570.8	716.4	686.2	715.6
Oil waste/Solvent waste (t)	11.2	9.2	12.0	12.0	16.6
Paper (t)	29.9	19.2	46.2	38.3	33.2

Note: Due to revised recycling standards and the resulting re-tabulation of data, waste plastic performance data has been removed.

Targets and results

We have established three major themes and are working on environmental activities by setting targets at each site.

We have set a CO₂ reduction target for fiscal 2030 of 46% lower than the level in fiscal 2013 in accordance with government targets.

Results in fiscal 2022 and targets for fiscal 2023 

Results in fiscal 2022 and targets for fiscal 2023

Results in fiscal 2022

We achieved our target in 36 out of 37 categories.

The Energy Conservation and Environment Conference, led by the newly established Environment Promotion Department, was held every three months to further promote environmental activities, including energy conservation throughout the Group. Specific initiatives included converting several sites to 100% power generated from renewable energy sources, upgrading to energy-saving, high-efficiency air conditioners, and creating power consumption visualization to help determine the next plan. Each TOCALO site sets independent environmental targets.

In fiscal 2022, the ratio of electricity consumption (MWh) to sales (millions of yen) was reduced to 1.07 from 1.61 in the previous fiscal year, showing results in our energy-saving and efficiency efforts.

The main themes in fiscal 2022 related to ISO 14001 were conserving energy and resources in our business activities, using our businesses to make a positive contribution to the environment, and mitigating climate change. As a result, although we did not achieve one of our energy conservation-related targets, we were successful in achieving all other 36 targets.

Targets for fiscal 2023

We are focusing on conserving energy and resources in our business activities, using our businesses to make a positive contribution to the environment, and mitigating climate change.

TOCALO has set the group goal of reducing greenhouse gas emissions to 54% of the fiscal 2013 level by fiscal 2030. We will achieve that first by improving our production efficiency to consume less electricity and also by using solar power generation to produce our own power source and purchasing electricity generated from renewable energy sources.

We are also replacing the remaining fluorescent lights with LEDs and planning to recycle the cooling water used in plants. Although our environmental performance could waver slightly because of the order-driven nature of our industry, we are working to achieve our reduction targets for greenhouse gas emissions as quickly as possible.

In fiscal 2022, one of our measures was to install additional electricity monitors to visualize electricity usage. Going forward, our task is to determine how to efficiently reduce electricity consumption based on more detailed electricity consumption data. We will continue to try out various methods as we work toward further energy conservation.


Our main themes in fiscal 2023 related to ISO 14001 will continue to be conserving energy and resources in our business activities, using our businesses to make a positive contribution to the environment, and mitigating climate change. All of our bases will set goals and conduct activities toward the same targets.

😊 : Achieved 😞 : Not Achieved




Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Conserving energy and resources in our business activities				
Miyagi	Energy- and resource-saving activities	Establishing technologies contributing to the environment (promoting automation) (1) Energy-saving: Automating inspections (2) Energy-saving: Automating inspections (3) Resource-saving: Automating blasting (4) Energy-saving: Automating thermal spraying	(1) On hold (2) On hold (3) On hold (4) On hold	😞
Tokyo Gyoda	Energy- and resource-saving activities	Installing energy-saving hybrid chillers	Completed order	😊
	Energy- and resource-saving activities	Reducing electricity use by TD process	Confirmed reduction impact	😊
	Energy- and resource-saving activities	Exploring collection and material reuse of waste thermal spray materials	Held meetings with material manufacturers Selected manufacturers for reuse Completed thermal spray testing with recycled materials	😊
	Reduction of the defect rate	Thermal spray material use during rework/re-coating 1.8% or less of total material use/year	1.80%	😊
	Reduction of the defect rate	Quality control nonconformance/complaint rate 0.07% or less/year	0.0004%	😊

Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Tokyo Suzumi	Energy- and resource-saving activities	Reduce thermal spray material use by 10%	Achieved 10 cases of at least 10% reduction	
	Energy- and resource-saving activities	Keep dust collector operation time within 140% of arc time through booth environment improvements	Dust collector operation time within 140% of arc time: 9 of 12 months	
	Energy- and resource-saving activities	Examine resource consumption reduction methods	Examined recycling carbide tips, grindstones, etc.	
	Reduction of the defect rate	Quality control nonconformities: 3 cases or less/month	3 nonconformities or less: 9 of 12 months	
Nagoya	Energy- and resource-saving activities	Investigate peak electricity consumption trends and rebalance use	Lowered peak power consumption by dividing lunch breaks into three shifts	
Kobe	Energy- and resource-saving activities	Measures to reduce electricity consumption: 1 case/year	1 case	
	Water resource use	Measures to reuse water resources: 2 cases/year	2 cases	

Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Akashi	Energy- and resource-saving activities	Zero air leaks by visualizing air data through air flow management	Formulated plan, executed action, confirmed zero air leaks through observation, continuing cycle	
	Promotion of recycling	Recycle empty thermal spray material plastic containers: 1,000 kg/year	1,210 kg	
	Promotion of recycling of thermal spray materials by Thermal Spray 1 Department	Recovery rate of A materials: 6,900 kg or more/year at Akashi Plant overall, 140 kg or more/year at Akashi No. 4 Plant	Akashi Plant: 7,000 kg No. 4 Plant: 150 kg	
	Promotion of recycling of thermal spray materials by Thermal Spray 2 Department	Recovery rate of B materials: 130 kg or more/year	182.78 kg	
	Promotion of recycling of thermal spray materials by Thermal Spray 3 Department	Recovery rate of C materials: 440 kg or more	465.8 kg	
R&D	Energy- and resource-saving activities	Identify electricity consumption through installation of electricity monitors	Installed electricity monitors for all equipment over 10 kW output	
Kurashiki	Reduction of paper usage	Reduction of paper usage to 14,500 sheets or less/month, 174,000 sheets or less/year	Average 13,418 sheets/month, 161,016 sheets for the year	
Kitakyushu	Energy- and resource-saving activities	Reduction of the ratio of annual power consumption to sales by 5% from the previous fiscal year	Reduced by 7.95% year on year	

Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Contributing to the environment by promoting business activities				
Headquarters	New proposals/orders	New project orders: ¥1,000,000 or more/month Target: ¥12,000,000 or more/year	¥70,033,000	
Tokyo Suzumi	New proposals/orders	Orders received for new items: ¥350,000,000 or more/year	¥443,430,000	
Nagoya	New proposals/orders	Orders received for new items: ¥512,400,000 or more/year	¥530,003,000	
Kobe	New proposals/orders	Orders received for new items helping with customer GHG reduction: 10 orders/year	10 orders	
Akashi	New proposals/orders	Number of new customer visits: 19 or more visits/month Target: 228 or more visits/year	Average 19.5 visits/month, 234 visits for the year	
R&D	New development activities	Initiatives for new development: 60 or more cases/year	60 cases	
	New development activities	In-house development of coatings or equipment to contribute to environmental improvements: 3 or more projects/year	4 cases	
Kurashiki	New proposals/orders	Orders received for new items: ¥137,000,000 or more/year	¥184,820,000	
Kitakyushu	New proposals/orders	Orders received for new items: ¥252,000,000 or more/year	¥401,176,000	

Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Mitigating climate change				
Headquarters	Promoting business activities	Disclose Group company environmental information	Consolidated data partially disclosed on the corporate website	
Miyagi	Energy savings/renewable energy	Reduce CO ₂ emissions by switching to renewable energy (1) Switch to electricity from renewable energy (2) Reduce emissions by 50% during LP gas use by switching equipment (3) Improve efficiency of solar power generation facilities and visualize generation results	(1) Completed switch in October (2) Construction completed in March (3) Higher efficiency achieved in October through repowering Visualization completed in November	
	Global warming mitigation	Reduce CO ₂ emissions through work style reforms and sales activities (1) Reduce CO ₂ emissions from commuting by 15% through telecommuting (2) Eco actions (from improvement proposals to implementation): 3 cases/year (3) Plan to introduce one EV vehicle and improve charging infrastructure in fiscal 2023	(1) Achieved: Average reduction of 15% (2) Achieved: 3 cases (3) Introduction not completed, but examinations toward introduction completed	
Akashi	Global warming mitigation	Completely eliminate equipment using the R-22 CFC Replace target equipment or formulate improvement plan	All equipment eliminated except 2 units; upgrade plan formulated for remaining units	

Site	Environmental target	Target for fiscal 2022	Fiscal 2022 results	
Others				
Nagoya	Promotion of recycling	Investigate and examine recyclable waste	Contracted with contractor recycling 100% of waste plastics	
Akashi	Reduction of waste	Separate disposal of waste dust: 20,000 kg/year or more	25,670 kg	
Kitakyushu	Reduction of waste	Reduce waste emissions by 0.5% of sales year on year	Reduced by 21% year on year	

Climate change measures

TOCALO is adopting renewable energy sources and implementing other climate change initiatives to reduce CO₂ emissions.

Global warming mitigation

We are implementing comprehensive measures to reduce electricity consumption, installing energy-saving equipment, and planning to convert to renewable energy sources.

The Group's CO₂ emissions are primarily the result of the energy sources we use, which include primary energy derived from fossil fuels, such as kerosene, diesel oil, LPG, and city gas, and the secondary energy source of electricity. Converted to CO₂, electricity accounts for the vast majority—88.72%—of our CO₂ emissions.

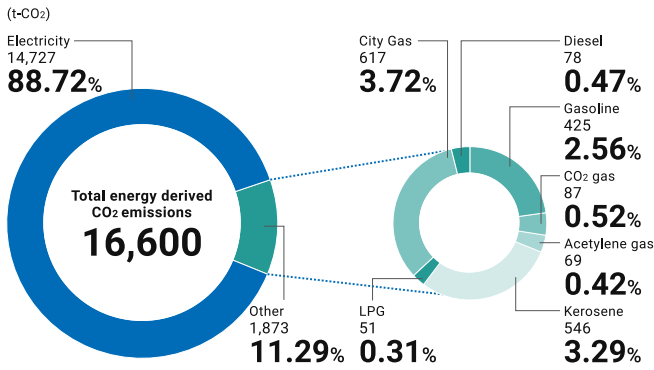
TOCALO takes meticulous steps to conserve electricity as a regular part of efficient business operations while also implementing measures including installing energy-saving equipment and upgrading aging equipment with environmentally efficient equipment.

We are also taking steps to convert to renewable energy sources that do not emit CO₂ in power generation.

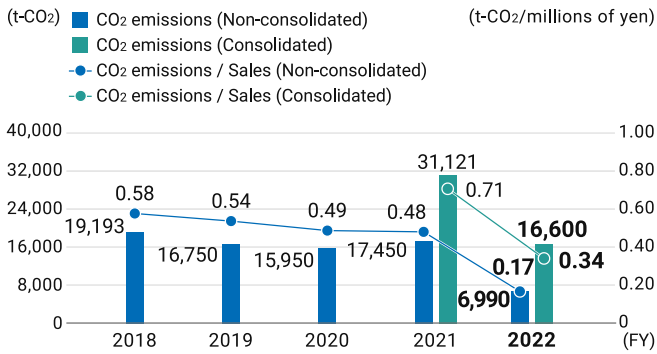
These steps include aggressive measures to reduce CO₂ emissions by using solar power to generate our own energy and by purchasing electricity generated from renewable energy sources.

In fiscal 2022, we reduced our CO₂ emissions by approximately 60% and the ratio of CO₂ emissions to sales decreased by approximately 65% compared to the previous fiscal year. The reduction is the result of our efforts to increase purchases of electricity derived from renewable energy sources. The decline in the ratio of emissions to sales reflects the improved production efficiency after installing energy-efficient equipment.

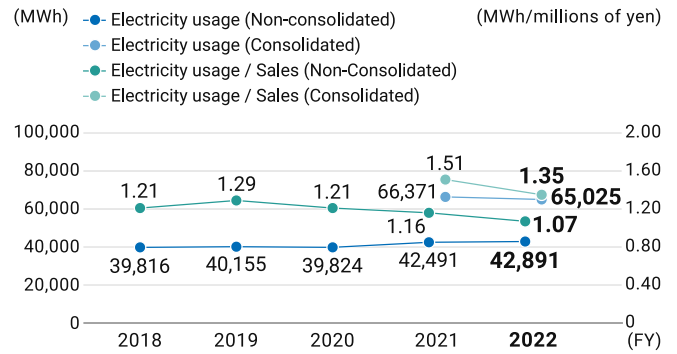
Breakdown of energy consumption in fiscal 2022 (CO₂ equivalent, consolidated)



Change in CO₂ emissions (Scope 1 and 2)



Change in electricity usage



Note:

Adjusted emission coefficients are applied to CO₂ emissions from purchased electricity from FY2020 onward.
CO₂ gas added in FY2021, acetylene gas been added in FY2022.

Generating solar power at the Okayama Kurashiki Plant

Okayama Prefecture is known as the “Land of Sunshine” for its low annual rainfall and generally sunny weather. The new plant we opened in Kurashiki, Okayama, in April 2022 is equipped with the Company’s first full-fledged in-house power generation system including approximately 3,500 square meters of solar panels on its expansive roof.

The Kurashiki Plant’s solar power system generated electricity covering 23% of the plant’s total electricity demand in fiscal 2022. The result, which takes into consideration the relocation of factory equipment from the Mizushima Plant in December 2022, was in line with our estimates.

Along with improving the efficiency of our production operations, using in-house generated electricity to meet our energy needs is a key step to reducing our CO₂ emissions. We plan to take this a step further by introducing in-house power generation that uses renewable energy sources to further reduce our environmental impact and greenhouse gas emissions.



Solar panels on the Kurashiki Plant



VOICE

This is our first plant to use in-house generated power, and we are aiming to make the system more efficient.

Kazunori Ikeda (General Manager, Sales Department, Tokyo Plant)

I was the Kurashiki Plant manager until March 2023, and I was involved in the plant's design and construction and the solar panel installation. The electricity generated by the solar panels has been reducing the plant's electricity costs and CO₂ emissions since April 2022.

Prior to installing the panels, we calculated the amount of electricity that could be generated based on historical solar radiation data. Okayama Prefecture has relatively low rainfall and is known as the "Land of Sunshine," making it one of the best locations in Japan for solar power generation. We installed as many solar panels as we could to generate enough power to meet the plant's electricity needs. This was our first attempt to install a full-scale power generation system. We had to overcome many challenges, including trying to calculate the actual installation cost and obtaining approval from the Company, but in the end the installation was successful.

In the year since the system started operating in April 2022, the system has generated 313,294 kWh of power, which is equivalent to 23% of the Kurashiki Plant's electricity consumption. In addition, CO₂ emissions were reduced by 22.6% (170 tons of CO₂), which was very close to our estimate.

Installing the panels has given us more opportunities to talk with employees about solar power generation, and I think it is raising awareness about energy conservation. We are also looking to enhance the system, such as by adding storage batteries, so that we can also make use of the power that can be generated during off days and in the early morning. I would like the plant to take full advantage of the benefits of having its own power generation system.

Supporting the Kobe Airport Island Blue Carbon Project

“Blue carbon” is attracting attention as a new countermeasure for global warming. Blue carbon is the carbon that is absorbed by seaweed, sea grass, phytoplankton, and other sea organisms.

Kobe City is promoting blue carbon in its Kobe Airport Island Blue Carbon Project, which focuses on the various types of seaweed growing on the gentle stone seawall around Kobe Airport Island.

The Japan Blue Economy Association certified the volume of CO₂ that the ecosystem is absorbing under its J Blue Credit program in 2022.

As a company headquartered near Kobe Airport, we purchased J Blue Credits equivalent to absorbing 3.9 tons of CO₂ as one of our measures to counteract global warming. Through initiatives like J Blue Credit, we will continue to work with local communities to reduce our environmental impact.

Kobe City Carbon Neutral Port Initiative:

[https://www-city-kobe-ig-jp.translate.goog/a49918/cnp.html?
_x_tr_sl=ja&_x_tr_tl=en&_x_tr_hl=en](https://www-city-kobe-ig-jp.translate.goog/a49918/cnp.html?_x_tr_sl=ja&_x_tr_tl=en&_x_tr_hl=en)

Carbon Neutral Ports Initiative:

https://www.mlit.go.jp/en/kowan/kowan_fr4_000011.html

Kobe City is promoting blue carbon initiatives to make Kobe Port a Carbon Neutral Port (CNP).



Monitoring survey (underwater photography)





The Kobe Airport Island waterfront


Waste reduction and environmental conservation

TOCALO is constantly monitoring the environmental impact of its business activities, products, services, and strive to prevent pollution.


Through the reduction of waste and the appropriate management of hazardous substances, TOCALO is committed to continuous improvement.

Appropriate management of chemical substances 

Waste Reduction 

Air pollution prevention 

Soil and water pollution prevention 

Noise countermeasures 

Appropriate management of chemical substances

In accordance with the PRTR Law, we report the amounts of chemical emissions and transfers.

In fiscal 2022, TOCALO reported the amount of designated chemicals released into the environment and transferred for six substances in accordance with the PRTR Law (Pollutant Release and Transfer Register: Chemical Substance Release and Transfer Notification System). The emissions met all regulatory standards under the act.

Release and transfer volume of PRTR Law, type 1 designated chemicals in fiscal 2022

	Released amount (kg)				Transferred amount (kg)	
	Emission into the atmosphere	Release into public waters	Discarding into the soil at place of business	Landfill disposal at place of business	Transferring to sewerage	Transferring off-site (industrial waste)
Chrome and trivalent chrome compounds	10.2	0	0	0	0	6,230
Cobalt and its compounds	802	0	0	0	0	1,800
Toluene	① 480	0	0	0	0	670
Nickel	9.8	0	0	0	0	8,820
Vanadium compound	1.9	0	0	0	0	0
Boron compounds	0	0	0	0	4.9	10,500

Note: Following the PRTR Law, the volume of vanadium compounds, for which we submitted a report in fiscal 2021, was reported as zero in fiscal 2022 because the volume handled that year was less than 1 ton. (The PRTR Law requires reporting when the annual amount of vanadium compounds handled at a business site exceeds 1 ton.)

- ① Toluene emissions into the atmosphere amounted to 480 kilograms.
Toluene is a substance contained in organic solvents (such as thinners), and the emission volume is calculated by estimating the amount of volatile organic compounds (VOCs) evaporated based on the natural drying method used.

Waste Reduction

We are properly disposing of all types of waste, from general waste to specially controlled industrial waste.

(1) General waste

Paper constitutes the majority of business-related general waste, and we are committed to reusing and recycling paper. When confidentiality is an issue, we work with the paper manufacturers to dissolve materials chemically.

(2) Industrial waste

Waste oil accounted for 39% of our industrial waste, which was the largest component. Waste oil emits from cooling water that is added to grinding oil for use as a coolant with wet grinders (machines for roll grinding). More than 90% of the water is tap water. After disposal, it is used at cement factories and elsewhere to adjust combustion temperature.

The other main components of industrial waste are sludge (21%), mixed waste (10%), slag (9%), waste alkali (7%), glass and ceramic scraps (6%), and waste plastics (5%).

Sludge contains large amounts of dust generated from thermal spraying. Although thermal spray dust is dry, it is treated as sludge with strict disposal standards.

Mixed waste is defined as a mixture of several types of waste that is difficult to sort.

Slag is a mineral slag, and wet slag from industrial operations is considered as sludge which is strictly controlled in waste treatment. TOCALO disposes as sludge any slag tailings that are wet or had the potential of getting wet.

Most of the alkaline waste is washing solution from TD treatment that contains a small amount of sediment. The solution is weakly alkaline due to its boron content. In certain instances, it may be treated as sludge.

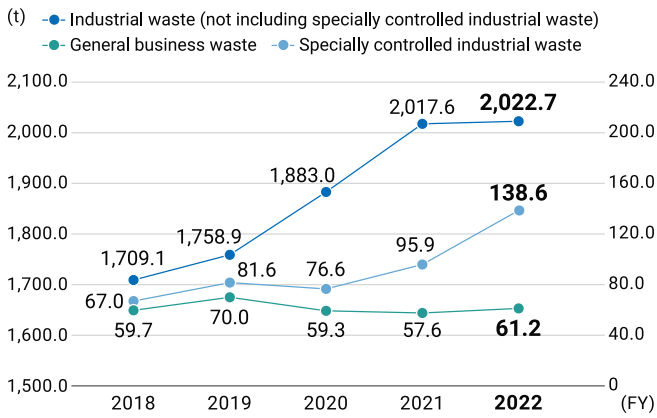
Glass and ceramic scraps, such as refractory bricks, contain ceramic-based grinding materials that cannot be recycled.

Waste plastics include material containers and secondary materials, as well as waste paper and wood scraps that contain oil. Our recycling and other efforts resulted in less waste than in the previous year.

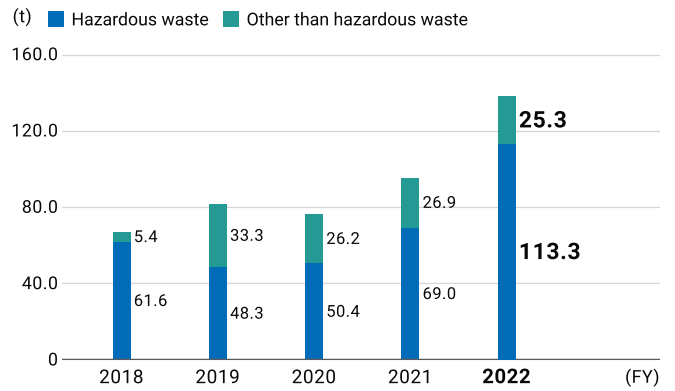
(3) Specially controlled industrial waste

Most of this waste is dust generated by thermal spraying using chromium-containing materials (such as stainless steel) and collected by a dust collector. When the dust volume exceeds the regulatory limit in dissolution tests, it is disposed of as specially controlled industrial waste.

Changes in total waste emissions



Breakdown of specially controlled industrial waste

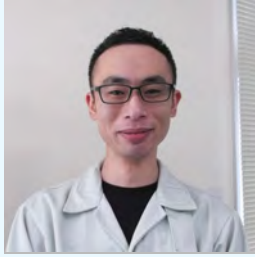


Note:

Results for hazardous specially controlled industrial waste in fiscal 2020 have been revised.

Changes in total waste emissions/sales





VOICE

Spreading environmental awareness and developing environmentally friendly activities

Kohei Ishizuka (Miyagi Technical Service Center, FS Manufacturing Section)

I am in charge of process management and industrial waste treatment in the Manufacturing Section. In April 2023, I was put in charge of the Miyagi Technical Service Center (Miyagi TSC) 's Environment Secretariat. In addition to my own tasks, I also strive to understand the company's operations and contribute as a team member to reduce environmental impact.

I'm relatively new to environment-related work. Right now, the biggest challenges for me are finding information about changes in environmental and waste-related laws and regulations and how to incorporate the changes into our internal business processes. I also think it's important that all of the employees at our operating sites have a similar awareness of environmental issues as I do, but it's been difficult to establish a shared awareness.

My own perception has changed since I was put in charge of the environment. As a member of the Manufacturing Section, I was only thinking about how to make a good product, but now I also think about what we are emitting when we make a product and how much of an impact those emissions can have on the environment. I've also changed some of my smaller daily habits. For example, I now look at documents on a computer as much as possible to reduce paper usage.

My goals are to incorporate actions that reduce our environmental impact into our business processes and to establish environmental awareness among not just the people in charge, but all employees. I also want everyone at our operating sites to engage in environmentally friendly conduct.

TOPICS

Introducing translucent clear paper files

We produce clear file folders printed with our corporate mascot. The folders used to be made of transparent plastic, but to reduce the impact of plastic on the environment, in fiscal 2022 we started producing semi-transparent file folders made of paper.

We wanted a material that would provide the benefit of plastic's transparency and the environmental friendliness of paper, and came up with the idea of making file folders using semi-transparent tracing paper.

We started by trying the folders in-house, and now are sharing them outside the Company, such as by inserting them in the pamphlets we give out at exhibitions.

The clear paper file folders are even better than plastic folders in many ways because they last longer and are stronger. Every day, we are thinking of ways to make the ideal folder that is easy to use and good for the environment. The clear paper folders are giving us more opportunities to think about what we can do to protect the earth.



Clear file folders made of paper

Recycling of miscellaneous recyclable paper at Headquarters (Kobe City)

Kobe City has been implementing an initiative for the recycling of used paper (miscellaneous recyclable paper) that is emitted by business operators targeting the business operators of Port Island and Rokko Island, and the TOCALO Headquarters (within Kobe City Port Island) has been participating in this initiative since March 2020. A large amount of shredder dust is generated at the Headquarters, and this is recovered and transported to designated locations in Kobe City by contracted transport companies.

Air pollution prevention

Dust generated in the thermal spraying process is safely collected before it can be released into the atmosphere.

TOCALO's main products modify surfaces by way of thermal spraying, which uses powder or wire as a material. The material is fed into a combustion flame or plasma jet, where it is melted and then sprayed to form a coating.

Powders that did not melt or did melt but were not deposited when sprayed become dust. Dust collectors collect the dust before it can be released into the atmosphere. (Photo)

Thermal spraying is a dry process and the collected dust is mostly dry, so there is no need for waste liquid treatment. A duct draws the airborne dust in a thermal spray booth into the dust collector where it is filtered with internal filters made of woven and nonwoven fabrics. The fine layer of dust that collects on the filter surface becomes thick and can clog the filter, causing the filter to lose suction pressure and reducing the efficiency of the dust collection. Using a pulse jet, compressed air is used at regular intervals to remove the dust and maintain process efficiency.

Dust that can be reused is recycled, and dust that cannot be reused becomes industrial waste.

As of the end of fiscal 2022, we have not confirmed the generation of sulfur oxide (SO_x) from our operations.



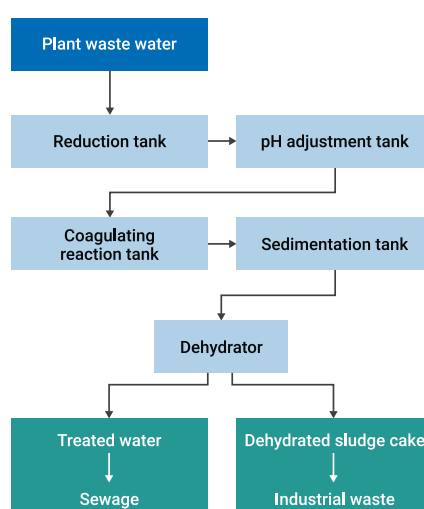
Cartridge-type dust collector

Soil and water pollution prevention

Soil and water pollution prevention is particularly critical because soil and water quality directly affect surrounding communities.

Processes at the Kobe Plant use surface modification technologies other than thermal spraying. Wastewater that requires detoxification treatment is detoxified at a coagulating sedimentation treatment facility prior to being discharged into the sewage system. As a precaution for an accidental leak of wastewater, the plant has installed pipes and concrete walls to prevent and quickly and visually detect leaks. Anti-spreading materials are also in place to prevent leaks from spreading. In addition to periodic monitoring and measurements, the equipment is controlled by a rigorous system compliant with applicable laws and regulations.

Plant wastewater treatment steps (coagulating and sedimentation treatment facility)



Noise countermeasures

Noise barriers have been installed and noise measurements are also carried out regularly.

The main types of equipment that generate noise of a concerning level are air compressors, dust collectors, and other blowers. However, in addition to this equipment, there are other noise sources, and we are taking steps to avoid disturbing the neighborhood by implementing soundproofing measures such as installing these facilities inside buildings and installing special soundproof walls.

In addition, we regularly measure noise levels to ensure that our facilities and equipment are within regulatory limits.



Noise measurement using specialized equipment

Supporting environmental organizations

TOCALO has begun actively supporting the following environmental organizations as another way to help protect the global environment through our activities. We are providing support for greening, protecting biodiversity, and other environmental activities.

In May 2023, we donated ¥500,000 yen to the Green Fund managed by the National Land Afforestation Promotion Organization.

The Green Donation Funds is used for forest maintenance in communities in Japan and overseas as well as for disaster relief, forest environment education, and to support greening efforts overseas. We will continue to support efforts to promote forest conservation and greening both in Japan and overseas.

In August 2022, TOCALO contributed ¥200,000 to WWF Japan.

You can find out more about TOCALO's contributions to society at the following links.

For further information, [click here](#):

Green Donation Funds: <https://www.green.or.jp/english/>

WWF Japan: <https://www.wwf.or.jp/>



Certificate of Appreciation from the President of the National Land Afforestation Promotion Organization

Response to the TCFD Recommendations

In August 2023, TOCALO announced its support for the TCFD* recommendations.



TOCALO's vision is to contribute to a bright future for people and nature, so we have positioned tackling climate change as a management priority. We will focus our expertise as a coating manufacturer to help clients conserve resources, reduce labor, and lower environmental burden for a decarbonized society. We will also actively disclose our efforts concerning climate-related risks and opportunities.

Note: The Task Force on Climate-related Disclosures. The TCFD was established in 2015 by the Financial Stability Board, a body representing the central banks and financial authorities of various countries as well as international organizations, following the mutual recognition by influential countries that climate change is having a major impact on financial markets. The TCFD recommendations on climate-related financial disclosures were released in 2017. In addition to encouraging companies and other organizations to disclose information related to climate change, they also provide a framework for making such disclosures.

Governance

We have established the Sustainability Committee to formulate sustainability policies and action plans and to monitor the progress of our efforts. It also deliberates on our response to climate change. The committee is chaired by the president and includes full-time directors and the general managers of business divisions among its members. It meets four times a year in principle.

The Board of Directors receives reports from the committee concerning every aspect of sustainability, including climate change, and deliberates on and approves matters as necessary. The Board of Directors approved a medium-term management plan that includes climate change-related targets at a meeting held in October 2021 and material issues that include climate change initiatives at a meeting held in December 2021.

Risks, Opportunities, and Response Measures

Category	Type	Details	Timeframe	Impact on Business	Financial Impact Unless indicated, the scenario is 2°C in FY2030	Response Measures
Transition risks	Policy and regulatory	Increase in energy procurement costs following the introduction of carbon pricing systems	Medium- to long-term	Medium	Carbon tax: ¥120 million* *2030 carbon tax estimated to be \$130/t-CO ₂ . *Foreign exchange rate \$1 = ¥133	Renewable energy <ul style="list-style-type: none"> • Long-term green electricity contracts • Consider incorporating additional renewable energy sources, such as solar power (increase the ratio of renewable energy consumption by switching to renewable energy sources) • Consider methods for storing electricity generated using solar power Facilities <ul style="list-style-type: none"> • Upgrade facilities to increase productivity • Replace equipment with leading energy saving models, including air conditioners, refrigeration equipment, LED lightbulbs, and compressors • Upgrade facilities to eliminate CFCs Vehicles <ul style="list-style-type: none"> • Switch company vehicles to hybrid models • Consider introducing electric vehicles, etc.
		Increase in materials procurement costs following the introduction of carbon pricing	Medium- to long-term	Medium	—	Enhance information gathering
	Market	Decreased coating demand from coal-fired power plants and other power generation facilities that use fossil fuels	Short- to medium-term	Medium	Decrease in sales related to thermal power generation: ¥1.08 billion (down 51% from FY2022*) *The rate of decline in thermal power generation is based on the Japanese government's Sixth Strategic Energy Plan	Adapt to technology geared toward alternative fuels such as hydrogen, ammonia, and biomass

Category	Type	Details	Timeframe	Impact on Business	Financial Impact Unless indicated, the scenario is 2°C in FY2030	Response Measures
	Reputational	A loss of reputation among stakeholders, investor outflow and a drop in share price, or rejection of recruitment opportunities due to insufficient response and information disclosure regarding climate change	Short- to medium-term	Medium	—	<p>Enhance and expand management and information disclosure concerning CO₂ emissions</p> <p>Strengthen communication with stakeholders</p> <p>Consider acquiring third party certification to improve the trustworthiness of information disclosure</p>
Physical risks	Acute	<p>Incurring of recovery costs due to damage to plants and operational stoppages caused by disasters such as typhoons, heavy rains, and lightning strikes</p> <p>Production delays and increased costs due to supply chain disruptions</p>	Medium- to long-term	Large	<p>Many of our business sites are located in coastal areas, where potential flood risk damage is higher from storm surges than from other sources, such as river flooding. Event of a flood-class disaster at the six business sites^{*1} located in potential storm surge flood areas: Sales loss due to shutdown: ¥5.84 billion^{*2} Damaged facility restoration cost: ¥8.85 billion^{*3}</p> <p>^{*1} Local government hazard maps indicate six business sites located in potential storm surge areas: Nagoya Plant, Head Office, Akashi Plant, Thermal Spraying Technology R&D Laboratories, Kurashiki Plant, and Kitakyushu Plant ^{*2} The number of days of shutdown is based on the Manual for Economic Evaluation of Flood Control Investment of the Ministry of Land, Infrastructure, Transport and Tourism ^{*3} Assumption is one flood event will cause 70% of machinery and equipment to fail beyond repair</p>	<p>Formulate disaster plans and consider moving plants in coastal areas that have a high risk of flooding due to rising tides and high waves</p> <p>Counter instantaneous power failures caused by lightning strikes (complete introduction of UPS devices, countermeasures for hydraulic control equipment)</p> <p>Strengthen business continuity planning, including measures concerning supply chains</p>

Category	Type	Details	Timeframe	Impact on Business	Financial Impact Unless indicated, the scenario is 2°C in FY2030	Response Measures
	Chronic	Procurement difficulties and steep price rises due to increasing metal demand amid decreasing extraction volume	Medium- to long-term	Large	<p>Increase in processing material costs: ¥1.52 billion (48% increase from FY2022*)</p> <p>*The rate of price increase for processed materials is based on the market growth forecast for the main metal materials used by the Company</p>	<p>Lower material volume by reducing consumption and improving efficiency (including recycling), pass on price increases</p> <hr/> <p>Monitor fluctuations in suppliers' prices due to changes at mines caused by regulations on materials extraction, including metals</p> <hr/> <p>Pursue customer satisfaction concerning quality by investigating the impact of changes at mines on quality</p>
		Plant damage due to rising sea level	Long-term	Large	<p>(+4°C 2050) Nagoya Plant, which is located in a flood zone, is inundated or much of the neighborhood is under water* . Plant relocation cost: ¥1.63 billion</p> <p>*Assumption of a 0.3 meter sea level rise from 2022 to 2050</p>	<p>Strengthening information gathering and flood countermeasures</p>
		Increased impact on employee health due to heat stroke, infectious diseases, etc.	Short- to long-term	Medium	—	<p>Improve working environments using cutting edge air conditioning</p>

Category	Type	Details	Timeframe	Impact on Business	Financial Impact Unless indicated, the scenario is 2°C in FY2030	Response Measures
Opportunities	Technological	Revenue growth through an increase in opportunities to capture new customers driven by the need of customers to adapt to climate change	Short- to long-term	Medium	Revenue increase in environmental energy-related businesses: ¥1.79 billion (an increase of 135.3% of fiscal 2022)	<p>Develop and market coating technology tailored to customers' GHG emissions reduction efforts (alternative fuels such as hydrogen, ammonia, and biomass, recycling facilities, etc.)</p> <hr/> <p>Develop and market coating technology tailored to efforts to promote and streamline natural energy power generation (wind power, hydropower, geothermal power, storage batteries, etc.)</p> <hr/> <p>If raw materials producers switch to renewable energy, showcase our ability to supply customers with coatings that generate zero Scope 3 GHG emissions</p>
	Reputational	Increase in potential orders by encouraging understanding of how coating technology connects to energy saving and GHG emission reductions	Short- to long-term	Large	Revenue increase from repair and revitalization-related businesses: ¥5.59 billion (an increase of 87.4% of FY2022)	Actively showcase our position as the leading company for thermal spray coating

Short-term:
Within the next five years
Medium-term: To 2030
Long-term:
To 2050

Risk management

We have positioned climate change risk as a serious business risk, and it is incorporated into the management of each division. The Sustainability Committee also monitors risk management on a cross-divisional basis. The Board of Directors receives reports on matters such as the results of this monitoring and then deliberates and decides upon company-wide response measures.

Metrics and targets

Electricity accounts for 94.67% (CO₂ equivalent) of the energy consumed by the Company and the vast majority of our CO₂ emissions.

We have set a target for fiscal 2030 Scope 1 and 2 greenhouse gas emissions to be below 54% of the level of fiscal 2013, representing a 46% decrease. We have also set a medium-term target to reduce non-consolidated GHG emission to under 54% by fiscal 2025.

We are also working to increase the waste recycling rate to 40% by fiscal 2025 as a countermeasure for the soaring cost of processing materials due to rising demand for metals and a declining extraction volume.

We are preparing to meet increasing opportunities to secure orders for our coatings by advancing our technological development and engaging in public relations to communicate how our coating technologies help conserve energy and reduce GHG emissions. We have also set targets for fiscal 2050 for order volume in the environmental field, encompassing environmental energy equipment and repaired and refurbished products.


Countermeasure	KPI	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
Convert to renewable energy, improve efficiency, and reduce electricity consumption	GHG emissions (non-consolidated, Scope 1 and 2)	7,900 t-CO ₂ (Less than 54% of fiscal 2013 emissions)	6,990 t-CO ₂	17,450 t-CO ₂

Countermeasure	KPI	Fiscal 2025 goal	Fiscal 2022 achievement	Fiscal 2021 achievement
Improve efficiency and reduce consumption (including recycling) of materials	Waste recycling rate	40%	33.1%	30.7%
Advance development of our coating technologies and engage in public relations to communicate how our coatings contribute to client efforts to reduce GHG emissions, conserve energy, and promote the adoption and efficiency of natural energy power generation.	Financial value of orders received in environmental field (1) Environmental and energy equipment (2) Repaired and refurbished products	(1) 2,000 million yen (2) 8,500 million yen Total: 10,500 million yen	(1) 1,326 million yen (2) 6,401million yen Total: 7,727 million yen	(1) 891 million yen (2) 6,117 million yen Total: 7,008 million yen



We are aiming to be a company trusted by customers and are striving to provide products and services that satisfy customer requirements.

We also want our business partners to grow alongside us through activities based on our partnerships.

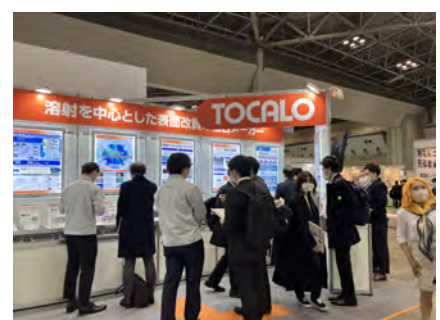
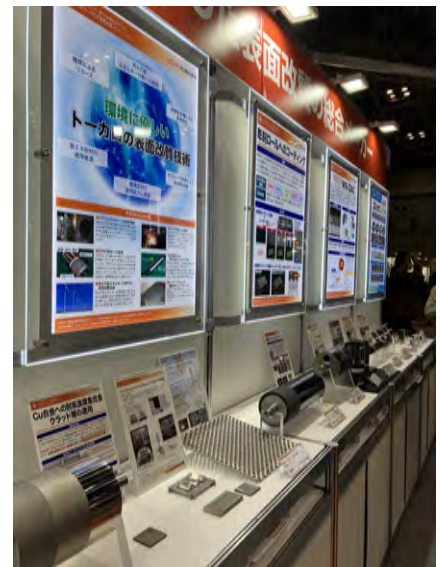
- Enhancing customer satisfaction 
- Acquisition of ISO 9001 certification 
- Acquired JIS Q 9100, Nadcap certification (for the aerospace industry) 

Enhancing customer satisfaction

Working daily to deliver inspiration to customers

We believe that the high value-added coating products that TOCALO delivers satisfy and inspire our customers through our high level of quality control and good services. We strive to communicate the information our customers need diligently and sincerely at every opportunity from proposal, order receipt, and delivery to after-sales service.

We are fully committed to quality control and our research and development. In addition to operating a quality management system compliant with both ISO 9001 and the aerospace industry certification JIS Q 9100, we also hold QA-presentation competitions to announce the results of quality control efforts, and technology report-presentation competitions to announce the results of new research. These tournaments are designed to raise the level of both technologies and quality management throughout the Company. We also established the Quality Headquarters, headed by a director, to strengthen our management system.



In 2017, we moved our headquarters to the Kobe Biomedical Innovation Cluster (KBIC; Chuo Ward, Kobe City), where we are focusing on market development in medical fields and collaborating with manufacturers in the area. We also actively participate in exhibitions on the themes of “Medicine,” “Environment and Energy,” and “Transportation Equipment.” In fiscal 2022, TOCALO exhibited at five trade shows. As a problem-solving company, we proactively seek to identify customer issues and work with customers to realize better products and services.

Photographs from the exhibition (SURTEC2023 Surface Technology Element Exhibition in February 2023)

■ Exhibits in fiscal 2022

- September 2022: The International Industrial Fair Kobe 2022 (Kobe International Exhibition Hall)
- October 2022: Kansai Healthcare and Medical Equipment Development Exhibition 2022 (INTEX Osaka)
- October 2022: Automotive World Nagoya (Port Messe Nagoya)
- February 2023: 2nd Highly-functional Material Week (Makuhari Messe)
- February 2023: SURTECH2023 Surface Technology Element Exhibition (Tokyo Big Sight)

In 2022, we launched TOCALO PARK, a metaverse enabling business discussions, including to pitch our surface treatment technologies. In fiscal 2022, we held four events on TOCALO PARK, including a technical seminar. Events on TOCALO PARK feature various materials used at actual exhibitions, with engineering and sales representatives presenting the latest technologies and case studies by industry. The COVID-19 pandemic has made corporate provision of information over the Internet much more common, and the number of visitors to our metaverse has grown with each passing event. We intend to continue holding a range of events going forward to meet the needs of our customers.

For more information about TOCALO PARK (Japanese site only), [click here](#).



EMPLOYEE VOICES

Becoming a more preferred partner through rigorous customer orientation

Shu Adachi (Akashi Plant, Sales Division, Sales Department 1)

My role in the Sales Division is to handle steel manufacturers, and, as a sales representative, I am tasked with finding solutions to my customers' problems with TOKARO's surface treatment technology. In my work, the most important thing for me is to maintain a strong customer orientation, and therefore I am constantly thinking about what I can do to make the customer happy and be helpful to them. By putting myself in the customer's shoes, I can better understand their potential needs.

As part of our after-sales service, we perform regular inspections of surface-treated conveyor rollers every one to three months. Any abnormalities could cause an issue if left untreated, so we make sure to be diligent in our inspections and ensure our customers can enjoy stable operation.

I fondly remember an instance where we helped a customer avoid issues by discovering and rectifying an abnormality during one such inspection. At that time, the client said to us that we had been quite a bit of help in taking responsibility for after-sales service, implying that they would be relying on us going forward. It was then that I realized how important our popular after-sales services have been in our customers choosing TOCALO.

We believe that every problem that occurs with a customer's product for which we have performed surface treatment has a clue to its solution at the customer's site. For us, it is of great importance not only to win the trust of our customers but also to develop technologies through an accurate understanding of what kind of problems are occurring in actual operations involving our services. This is why we will continue to maintain a rigorous customer orientation in our field-first sales activities.

Acquisition of ISO 9001 certification

All plants have acquired certification.

We continually improve our quality management system in order to improve customer satisfaction and earn social trust through quality assurance.

Status of ISO 9001 certification

ISO 14001-certified plant	Registered date	Registration number	Certified activities
Kitakyushu Plant	Jul. 1998	JQA-2470	Thermal spray processing for industrial machinery parts, equipment parts for the chemical industry, and parts for FPD and semiconductor manufacturing equipment
Tokyo Plant	May 1999	JQA-QM 3344	Surface treatment processing for industrial parts (thermal spray processing and other peripheral technologies)
Akashi Plant	Oct. 1999	JQA-QM 3810	Surface treatment processing for industrial parts (thermal spray processing and other peripheral technologies)
Kobe Plant	May 2003	JQA-QMA 10001	ZAC processing of parts for FPD and semiconductor manufacturing equipment TD processing of insert block molds for automobile forming mold
Kurashiki Plant	Dec. 2011	JQA-QMA 14492	Surface treatment processing for industrial parts (thermal spray processing and other peripheral technologies)
Nagoya Plant	Nov. 2017	JQA-QMA15690	Surface treatment of parts for general industrial and aerospace industries (thermal spraying)

Quality control system

Process	Implementation items	Certified activities
Considering orders	<ul style="list-style-type: none"> • Interviews • Review of customer requirements • Preliminary verification test 	<ul style="list-style-type: none"> • Gathering information through interviews to realize customer requirements • Analysis of the use environment for each customer • Proposal



Process	Implementation items	Certified activities
Orders (processing instructions)	Processing directives <ul style="list-style-type: none"> • Drawing • Purchase specifications 	<ul style="list-style-type: none"> • Input customer requirements into processing directives (attachment of drawings, purchase specifications, etc.)



Process	Implementation items	Certified activities
Manufacturing	<ul style="list-style-type: none"> • Incoming inspection • Purchasing process control • Manufacturing process control • Shipment inspection 	<ul style="list-style-type: none"> • Incoming inspection (prevention of non-conforming parts and materials into the manufacturing process based on source management) • Purchasing management (purchase of conforming products from selected suppliers) • Manufacturing process (management of individual processes based on 5Ms to provide stable product quality) • Shipment inspection (provision of products that meet customer requirements)



Process	Implementation items	Certified activities
Shipment	<ul style="list-style-type: none"> • Traceability management 	<ul style="list-style-type: none"> • Management of process history by product identification



Process	Implementation items	Certified activities
After-sales service	<ul style="list-style-type: none"> • After-sales follow-up 	<ul style="list-style-type: none"> • Quality surveys of tie-ups in engineering, manufacturing and sales by visiting customers • Sincere response to customer complaints

Acquired JIS Q 9100, Nadcap certification (for the aerospace industry)

The Nagoya Plant has acquired certification for the aerospace industry.

JIS Q 9100 was established to manage the quality of aerospace defense products, which requires advanced quality control. To satisfy requirements specific to the aerospace industry, the Nagoya Plant acquired certification in November 2008. The Akashi Plant was also certified in 2014, but the aircraft-related work was consolidated at the Nagoya Plant, and the certification was returned at the end of March 2020.

Nadcap is an international certification system under which the Performance Review Institute (PRI), an NPO in the United States, reviews special process operations in the aerospace and defense industry.

JIS Q 9100 and Nadcap certification

	ISO 14001-certified plant	Registered date	Registration number	Certified activities
JIS Q 9100	Nagoya Plant	Nov. 2008	JQA-AS 0044	Surface treatment of aerospace components (thermal spraying)
Nadcap		Mar. 2014	9676204446	Surface treatment of aerospace components (thermal spraying)



The TOCALO Group is committed to respecting the human rights of all stakeholders, including employees and business partners.

We are furthermore committed to the eradication of discrimination and harassment.

Respect for human rights

TOCALO Group Human Rights Policy

The TOCALO Group is a company that sincerely and creatively promotes sound business activities and contributes to creating a flourishing society. The Corporate Code of Conduct stipulates ethical standards that all Group officers and employees are expected to follow.

The Code of Conduct states the Group's basic policy on human rights is to respect for basic human rights, prohibit discriminatory treatment and child and forced labor, and foster a workplace culture that recognizes diversity and individuality.

[*Corporate Code of Conduct](#)

In accordance with the Code of Conduct, the TOCALO Group Human Rights Policy clearly states the Group's responsibility to uphold human rights. The Group recognizes that any of its business activities has the potential to directly or indirectly infringe human rights. The president and chief executive officer are responsible for efforts to ensure human rights are respected for all people involved in its business activities.

1. Respect for human rights

The Group respects internationally recognized human rights as stipulated in the International Bill of Human Rights and the International Labor Organization Declaration on Fundamental Principles and Rights at Work. The Group complies with applicable laws and regulations in the countries and regions where we conduct business activities in accordance with the United Nations Guiding Principles on Business and Human Rights.

We respect the internationally recognized human rights when a contradiction exists between internationally recognized human rights and the laws and regulations of a country or region.

2. Scope of application

The Human Rights Policy outlines the Group's responsibility to implement measures to respect human rights and applies to all officers and employees of the Group. The TOCALO Group expects all of its business partners to follow the policy.

3. Human rights due diligence

The Group maintains a system for conducting human rights due diligence and identifies and takes steps to prevent and minimize actual and potential human rights infringements in the Group's business activities and value chain.

The Group also appropriately discloses information about our human rights measures and their progress on our website and via other means.

4. Correction and remedy

If it becomes clear that a Group business activity has directly or indirectly caused, promoted, or been involved in a human rights infringement, we will take appropriate internal and external steps to correct and remedy the situation. We will additionally develop effective corrective and remedial mechanisms.

5. Dialogue and discussion with stakeholders

The Group will engage in dialogue with various stakeholders about ways to improve its efforts to respect human rights based on Human Rights Policy.

6. Education and training

We will provide Group officers and employees with appropriate education and training to ensure the Human Rights Policy is taken into consideration and effectively put into practice in all of our business activities.

June 23, 2023

Kazuya Kobayashi

Representative Director President and Executive Officer

TOCALO Co., Ltd.

Eliminating all discrimination among employees

The Compliance Handbook expressly stipulates that the company shall respect the fundamental human rights of employees and shall not discriminate against or harass individuals for reasons unrelated to the performance of one's duties. This includes race, nationality, ethnicity, beliefs, religion, age, sex, sexual orientation, physical characteristics, presence or absence of disability, internal position, type of employment, property, place of origin, marital status, or any other reason that may harm the dignity of the individual. Furthermore, instructions have been given stating that reasons unrelated to the performance of duties cannot be made selection criteria during the new hiring of employees.

Prevention of harassment

In order to prevent harassment, we conduct regular harassment training for all employees and have established internal and external contact points, the latter operated by third parties, for whistleblowing and consultation regarding harassment and other issues.

Our Compliance Handbook is distributed to all employees to raise awareness of compliance and corporate ethics.

- **Percentage of employees with disabilities**

2.71% (non-consolidated, end of March 2023)



Human resource development

The people we seek

We seek individuals who will embody our corporate mottos of Technology & Ideas, Youth & Passion, Harmony & Reliability, and Good Service and seek to take them to a new level.

Human resource development policy

We aim to be the best partner for our clients by creating value with our surface modification technologies. To achieve this, we must cultivate personnel with the ability to work autonomously in the four key areas of reinforcing our market development, reinforcing our technological development, enhancing the sophistication of our manufacturing, and realizing sustainable growth to become a 100-year company. We accordingly provide various growth opportunities to employees to bring out their potential and motivation and support the advancement of their careers.

Human resource development policy

1. Improve proposal-based sales capabilities to provide optimal solutions

We strengthen our proposal-based sales capabilities so we can provide optimal solutions to diverse customer needs. We do this by providing employees with opportunities to join projects in our priority fields and our conference where employees give presentations about actual business case examples so they can expand their specialized knowledge and learn from actual application cases.

2. Encourage ingenuity in manufacturing and solidifying our foundation (personnel development)

We encourage thinking creatively about ways to improve manufacturing efficiency so we can both provide coatings designed to individual customer specifications and increase our production capacity. One of the ways we do this is through initiatives to improve manufacturing, including holding QA-presentation competitions. We also have mechanisms (personnel development) to ensure work processes are performed according to specifications and procedure manuals, which are overseen and supervised by a foreman.

3. Continuously enhancing quality control

A quality management system is of fundamental importance to our business because of the extreme difficulty confirming the quality of a coating after it has been applied. To maintain strict control of the coating application process, we encourage employees to obtain skills that will further improve our quality control systems, including earning quality control certification (QC Kentei) and non-destructive inspection engineer qualifications.

4. Cultivate a corporate culture with a flexible approach to technology development

The technology report presentation competitions and technical conferences we hold for employees are events that embody our Technology & Ideas motto. We foster a corporate culture that creates enthusiasm for technological development and flexible thinking unbound by pre-existing concepts.

5. Provide digital education and selecting DX human resources

Digitalization and DX are important to improving the productivity and quality of all operations. We are implementing digital education to raise the digital literacy (the ability to understand and use it) throughout our organization. We are also selecting and training individuals as DX human resources who can use data and digital technology to lead to innovation.

6. Cultivate strategic thinking by broadening perspectives with a global experience program

We are launching a new global experience program to develop human resources who will lead not only our global expansion but also for our corporate development in the long term. The program is intended to broaden the perspectives and nurture the strategic thinking of highly motivated employees.

KPIs for human resource development (non-consolidated)

Item	KPI	FY2025 target	FY2022 result	FY2021 result
Encourage ingenuity in manufacturing and solidifying our foundation (personnel development)	Number of certified technicians (total)	240	192	178
Continuously enhancing quality control	Number of people passing QC certification tests (total)	60	46	29
	Number of qualified non-destructive testing engineers (total)	25	18	15
Cultivate a corporate culture with a flexible approach to technology development	Number of external presentations (academic society presentations, research papers, commentary articles)	25	28	18
Overall	Education expense per employee	¥80,000	¥63,200	¥54,200

Human resource programs (non-consolidated)

	Young employees	Mid-career personnel and professionals	Management level
Market development and services	Business case presentation meetings		
	Salesperson development training		
	Focus area projects and working groups		
Technology development	Joint development with customers, industry-academia-government collaboration		
	Technical Report Presentation Competition	Technical meetings	
Manufacturing and quality	QA-presentation competitions (improvement initiatives)		
	Thermal spraying/machining/metal heat treatment technicians		
		Meister system	
	Quality management system (quality meetings)		
	QC testing, non-destructive testing engineer qualifications		
Management	Global experience system		
		Management candidate development training	Training for newly appointed managers
Foundations	New employee training	New manager training	
	Second- and third-year training	Career planning training	
	Digital education		
	Compliance training		
	E-learning (self-development)		



VOICE

Providing full support to employees taking on new challenges

Hiroshi Goto

Director, Managing Executive Officer, General Manager of Administrative Headquarters

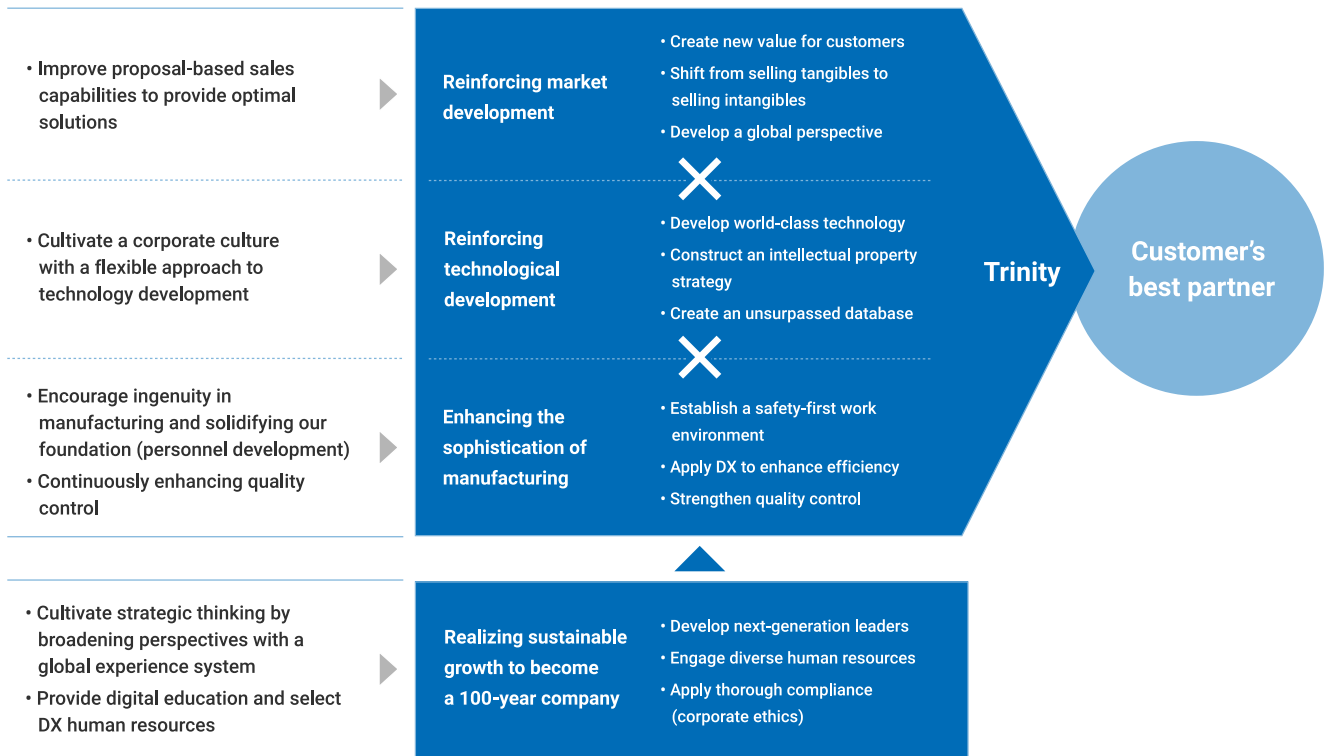
For TOCALO to continue growing and developing into the best company it can be, all of our employees must likewise continue growing. One of our missions is to create an environment where our employees can grow. I am particularly focused on creating an environment where employees are eager to take on new challenges.

In fiscal 2022, we launched the global experience program to train the human resources that will lead our global development into the long term and introduced an internal “DX human resources recruitment” in which we are selecting and training individuals to use data and digital technology for innovation. Younger employees in particular have been very interested in these programs, and the applications have far outnumbered the number of spaces.

We are creating an environment that encourages employees to take on new challenges and providing full support. We expect these efforts to greatly support the growth of highly motivated employees which will contribute to the Company’s overall growth.

Investment in human capital

Our human resource development policy is to actively invest in developing and strengthening the human resources we need to become the best partner for our customers. TOCALO Co., Ltd. invested a total of ¥48 million, or ¥54,200 per employee, in employee education in fiscal 2021.







¥59 million education investment in FY2022 (non-consolidated)



TOCALO has set “Cultivating and actively engaging diverse human resources” as a material issue (materiality) for our sustainable growth. We also provide employee training and an internal work environment where employees can actively express their individuality and abilities.

In addition, we ensure our working conditions meet or exceed the standards stipulated by laws and regulations. We engage in ongoing dialogue aimed at creating and preserving a fulfilling work environment and compensation structure, including holding discussion meetings between company and labor union executives about six times a year.

- Creating a comfortable work environment 
- Diversity Promotion Activities 
- Supporting work-life balance 
- Third-party Evaluations 

Creating a comfortable work environment

Work environment policy

We will maintain a comfortable work environment for all employees so that they can express their individuality and abilities and achieve harmony between their work and private lives.

Work environment principles

1. Foster corporate culture with psychological safety

Foster an open corporate culture where all employees feel comfortable expressing their opinions and feelings and where everyone is supportive of taking on challenges.

2. Maintain and improve a comfortable work environment, including health and safety

We ensure employee workplace safety and health in accordance with the Labor Standards Act and the Industrial Safety and Health Act and strive to maintain a clean, functional, and people-friendly working environment.

Please see [Occupational safety and health initiatives](#) for details.

3. Provide equal-opportunity career advancement and merit-based evaluations

We actively employ human resources with various attributes (nationality, age, presence or absence of disabilities) who can feel motivated to work to their full potential. We promote the active participation of women. We provide equal opportunity for career advancement and merit-based evaluations.

Please see [Diversity](#) and [Human resource development](#) for details.

4. Support employees balancing work with childcare and nursing care

We provide career assurance to employees who are raising children or providing nursing care by offering and disseminating information about our temporary leave, holidays, shortened work hours, and other programs. We also take steps to maintain the understanding and cooperation of superiors and others in the workplace.

Please see [Supporting work-life balance](#) for details.

5. Create a workplace environment allowing flexible work styles and healthy work activity

We strive to provide and develop flexible work structures (work locations, hours) and to create a work environment where employees can physically and mentally work in a healthy manner. We believe that a flexible and healthy work environment improves productivity and enables work-life balance.

Please see [Supporting work-life balance](#) for details.

6. Provide learning opportunities and establish an award program

We provide a variety of learning opportunities for employees to improve their work skills and advance their personal development. We also created an award system to stimulate employee motivation.

Please see [Human resource development](#) for details.

KPIs for work environment (non-consolidated)

Item	KPI	FY2025 target	FY2022 result	FY2021 result
Maintain and improve a comfortable work environment, including health and safety	Occupational safety incident frequency	Target is zero	1.80	0.62
	Labor safety incident severity rate	Target is zero	0.03	0.00
Equal career opportunity and merit-based evaluations	Percentage of female full-time employees	13%	11.0%	9.5%
	Percentage of female managers	5%	2.3%	1.4%
Support balancing work and childcare/nursing care	Percentage of male employees taking childcare leave	90%	68.0%	31.3%

Please see the section [ESG data](#) for data on human resources.

Competitive ratio in recruitment by gender for the last three fiscal years (non-consolidated)

Employment management classification	Female competition ratio (A)	Male competition ratio (B)
Career track	3.57 times	4.20 times
Skills and clerical positions	0.33 times	1.00 times

Total number of hours of overtime and holiday work per worker per month in the most recent fiscal year (non-consolidated)

The total of overtime and holiday work is less than 45 hours each month in all employment management categories.

Various career courses (non-consolidated)

Status of mid-career recruitment and re-employment, such as conversion to regular workers in the last three fiscal years

Last three fiscal years	Action taken	Number of people
Fiscal 2020-2022	A. Conversions to regular workers, hired dispatched workers	8 (Conversions to regular workers, hired dispatched workers)
	B. Conversion between employment management categories that contributes to career advancement	14 (same as above)
	D. Mid-career recruitment of females over age 30 as regular workers	15 (not including the above)

Diversity Promotion Activities

Promotion of diversity

In July 2020, we launched the Diversity Promotion Committee with the goal of becoming a company where diverse human resources can work comfortably and enthusiastically. We revised our internal regulations based on constructive opinions and information regarding improving our Company received from employees from various backgrounds, genders, ages, and affiliations. We also proactively produce and distribute pamphlets and posters.

In February 2022, we established the Diversity Promotion Division, which is dedicated to further strengthening these activities. Along with our current priority of promoting the advancement of women, we are taking proactive steps to create a worker-friendly workplace environment.

See here for details [📄](#)

Note: The link is for an external website.



VOICE

Constantly promoting diversity and creating a culture where employees can work with enthusiasm

Yuka Wakabayashi (Diversity Promotion Division, HR & General Affairs Division)

The Diversity Promotion Division established in April 2022 is implementing company-wide measures to promote the active participation of women, establish better work styles, and create a workplace environment with the aim of realizing a company where diverse human resources can work energetically and comfortably.


In fiscal 2022, the division focused on making sure it is operating at full power and on raising awareness of diversity issues, as well as actively promoting public relations through the internal newsletter and presenting participatory events. We also conducted interactive training sessions for managers, and in a survey 90% of managers responded that “the Company’s diversity has improved.” I believe these efforts have greatly improved the level of attention to diversity within the Company and advanced our diversity.


Our aim is not only to create a workplace environment with a good work-life balance, but also to create a culture where human resources of all genders and nationalities play an active role. Accommodating diversity and a wide range of perspectives will be especially important in the future global society. We want to create an open atmosphere where our diversity gives rise to innovation.

During my year and a half in the Diversity Promotion Division, I’ve met people from various departments and occupations. At this year’s family event, I was reminded once again that behind each employee is a family of many people. I want to continue improving our Company one step at a time so we will be a positive factor in all three elements of our employees and their families, the Company, and society.

Publication of General Business Owner Action Plan

We publish a General Business Owner Action Plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on the Promotion of Female Participation and Career Advancement in the Workplace.

General Business Owner Action Plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children 

General Business Owner Action Plan based on the Act on Promotion of Female Participation and Career Advancement in the Workplace 



Adobe Reader is required to view PDF files.

Adobe Reader can be downloaded from the button on the left.

Supporting work-life balance

Improving our programs and increasing acceptance

Employees and management are working together to improve our programs supporting a balance between work and life by reducing extended working hours and encouraging employees to take annual paid leave. We have also established a childcare-leave system to help employees balance work and child rearing amid Japan's rapidly declining birthrate and aging population. In addition, we are improving the work environment to better support health management during pregnancy and after childbirth.

We are also reforming workstyle options and our workplace culture to support employees who need to work while caring for family members, and are raising awareness of the available workstyle options.

In March 2023, we added a condition to support for people balancing work and infertility treatment by allowing leave for fertility treatment.

Third-party Evaluations

Kurumin Plus Certification

To be a company with a diverse and enthusiastic workforce, the Diversity Promotion Committees at each worksite are leading efforts to strengthen our employee support programs, such as for people balancing childcare and work, and to encourage male employees to take childcare leave. In March 2023, we introduced a leave program to support employees undergoing infertility treatment and ran programs to promote awareness and understanding of infertility treatment. These efforts earned us Kurumin Plus certification as a company supporting employees who are balancing work with raising children and infertility treatment.

Please see the section [ESG Data Collection](#) for data on the percentage of employees taking paid leave and childcare and nursing care leave.





At TOCALO, we are committed to the upkeep and improvement of a facilitative work environment where employee health and safety is an important consideration.

In addition, we focus efforts on mental care for our employees, working to create a safe environment where they can work with greater comfort and peace of mind.

Industrial safety and health initiatives

We are also focusing on ensuring safety in the event of a disaster

We strive to maintain and improve a comfortable work environment that gives consideration to safety and health, as well as enhance various systems related to welfare in compliance with the Labor Standards Act and the Industrial Safety and Health Act. Parallel to this, each business site has established its own measures to ensure safety and minimize damage in the event of a disaster.

In order to prevent occupational accidents from occurring, the entire company is making concerted efforts to vigorously promote safety and health measures.

As one of our initiatives in this regard, we receive tutelage and advice regarding health issues and health & safety from an outside director who is a specially-appointed professor of the Osaka University Campus Life Health and Counseling Center.

2023 safety and health policy

TOCALO's safety and health policy is based on the principle that "safety takes precedence over everything." The policy provides guidelines for "maintaining and improving work environments" and "achieving zero accidents and zero injuries" by showing due consideration to safety and health in ways that safeguard and enhance the health of all employees.

We will strive to create a bright and rewarding workplace by:

1. Complying with laws and regulations related to safety and health related to our business and relevant internal regulations
2. Continuing industrial health and safety activities (inspections, patrols, and education) and striving to raise awareness of health and safety
3. Aiming to reduce the hazards that cause accidents and disasters by promoting visualization and risk assessments based on 5S-activity initiatives and analysis of workplace injuries, as well as to acquire JIS Q 45100 certification
4. Showing due consideration to mental health so that employees can work in a healthy state of mind
5. Thoroughly providing health & safety education for new employees beginning when they join the company
6. Promoting the safety activities of on-site partner companies and subcontractors

Heat stroke countermeasures at manufacturing sites

In recent years, summer heat has become increasingly severe, and temperatures at manufacturing sites have been higher than before, increasing stress on employees. The higher the temperature gets, the greater the risk of heat stroke becomes, so this could adversely affect the health of our employees.

To prevent such risks, we are firstly improving our air-conditioners. Air-conditioners are installed at most of our flat panel display (FPD) and semiconductor processing plants (FPD and semiconductors make up just over 50% of total sales), and we are actively introducing them at other worksites as well.

Measures other than air-conditioning are implemented at sites as required, such as exhausting hot air and steam generated in operations to the outside, reducing outdoor heat input through the use of heat-shielding coating, and installing large-scale air blowers. In addition, for personnel, we are promoting rehydration and salt supplementation with salt candies, installing spot coolers, and introducing air-conditioned clothing. With these measures in place, many of the workers at sites say that the work has become easier, which has also led to more efficient work.

However, there are some sites where countermeasures are not yet sufficient, and further improvements are necessary. We will continue to consider the health of our employees and take appropriate measures at each business site.

Approach to mental health

Our initiatives to support the employee mental health of our employees include annual stress checks as required by law and give feedback on the results to individuals. We also seek to improve our work environments by performing diagnoses of our company structures to identify structural issues.

We offer stress checks to employees and additionally provide contacts for consultation.

In 2022, we contracted with SOMPO Health Support Corporation to provide health management services that provide employees with mental conditions the opportunity to consult with industrial health advisors. The consultations will serve as a preventive measure to reduce instances of employees taking a leave of absence.

Initiatives for raising safety awareness

Each office holds monthly meetings of the Health and Safety Committee where risks regarding workplaces are assessed, and feedback on the results is given to employees. An effort is made to share the information from the committee meetings at company-wide health and safety meetings in which all offices participate every other month. Effort is also made to raise safety awareness by providing education centered on safety education to new employees entering the Company that is and focusing on foreman training that is based on guidance from external consultants.

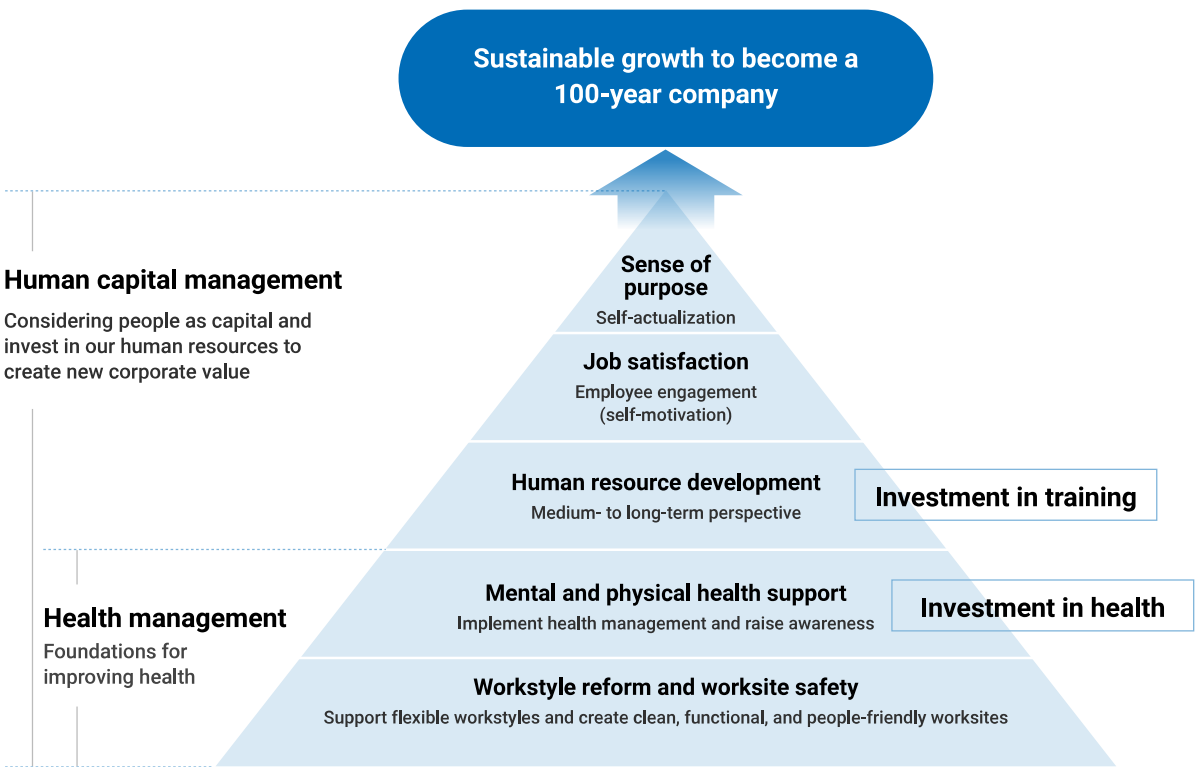


Health management is a priority management issue at TOCALO and we take steps to provide full support for employee mental health care and work-life balance so all employees can work energetically and safely.

Basic approach to health management

Positioning of Company health management

In 2023, we announced our Declaration on Health Management based on the belief that efforts to maintain and improve employee health are fundamental to human capital management. We are actively implementing health management as part of our drive for sustainable growth toward becoming a 100-year company.



Declaration on Health Management

Our medium-term management plan stated our mission to “make employees and their families proud of our Company as a place to work with enthusiasm and safety,” and we accordingly implemented measures to “develop human resources” and “create a work environment that is clean, functional, and people-friendly.” In addition to the above, fulfilling our mission will also include actively advancing health management measures by “promoting mental and physical health” and “increasing employee engagement (eagerness to contribute to the Company).”

Kazuya Kobayashi
Representative Director,
President and Executive Officer

Health management policy

1. We actively support each and every employee so they can work independently to improve their physical and mental health.
2. We create comfortable worksites that are clean, functional, and people-friendly.
3. We regularly evaluate the results of health and productivity management initiatives and maintain a system for continuous improvement. Management will demonstrate leadership to promote employee participation in health management.

Health management promotion initiatives

Health management promotion structure

The Personnel and General Affairs Division promotes the Company’s health management. The TOCALO President serves as the Chief Health Management Officer and the General Manager of the Administrative Headquarters serves as Health Management Promotion Officer. The Personnel and General Affairs Division forms and executes its policies and strategies while cooperating fully with the Production Headquarters in charge of safety and health, labor unions, external organizations (health insurance associations), and external experts (occupational physicians).



Priorities

1. Promote mental health
2. Promote physical health
3. Create a clean, functional, and people-friendly work environment
4. Improve work-life balance

Approach to mental health

Our initiatives to support the employee mental health of our employees include annual stress checks as required by law and give feedback on the results to individuals. We also seek to improve our work environments by performing diagnoses of our company structures to identify structural issues.

We offer stress checks to employees and additionally provide contacts for consultation.




In 2022, we contracted with SOMPO Health Support Corporation to provide health management services that provide employees with mental conditions the opportunity to consult with industrial health advisors. The consultations will serve as a preventive measure to reduce instances of employees taking a leave of absence.

Initiatives to improve work-life balance

We are introducing and expanding our systems for accommodating flexible work locations and work hours and taking steps to create a physically and mentally healthy work environment. We believe these efforts will enhance productivity and improve employee work-life balance.



We aim to be a company that enjoys friendly relations with its neighbors through cleanup activities in the surrounding areas, participation in community events and youth development programs, and promotion of sports.

Community cleanup activities  Contributing to youth development  Contributions to society 

Community cleanup activities

Cleanups tailored to business locations and the particular traits of their surrounding communities

TOCALO's community cleanup activities began as part of our activities to contribute to local communities. As always, the cleanups are conducted while paying close attention to traffic and wearing high-visibility orange bibs.

Quite a bit of garbage tends to find its way to the area around the Kobe Plant, often fireworks residue and barbecue leftovers discarded at a nearby park. Something that has been encouraging in our regular cleanup activities is that our neighbor companies have told us they would like to start their own activities based on ours.

A team from the Thermal Spraying Technology R&D Laboratories, with the proper permissions, cleans the green area of the nearby Akashi Seaside Park.

The Akashi Plant engages in monthly cleanup activities in conjunction with the cleanup activities of its industrial park.

At the Head Office, we pick up litter on sidewalks and in gutters around the office on a monthly basis.



Cleanup activities near the Nagoya Plant

Although cleanup activities were scaled down due to the COVID-19 pandemic, we are gradually rebuilding these activities to their previous levels and will sustain community cleanup activities going forward in a way that is tailored to each business location and the particular traits of their surrounding communities.



Cleanup activities near the Head Office

Contributing to youth development

Supporting the Akashi-jyoki Gakudo Soft Baseball Tournament

TOCALO has been a special sponsor of the Akashi-jyoki Gakudo Soft Baseball Tournament since its launch in 2012. In its finest traditions, 20 teams from the local prefecture (Hyogo) battled it out in the 2022 tournament, with tournament awards bestowed by the head of the Akashi Plant at the closing ceremony.



Past Akashi-jyoki Gakudo Soft Baseball Tournaments and the Akashi TOCALO Baseball Stadium

Accepting internships

TOCALO has been hosting interns annually since fiscal 2007. For safety reasons during the pandemic, we did not accept interns in fiscal 2022.

We usually accept one or two interns from Helmut Schmidt University in Germany each year. The interns spend over a month in summer at the Thermal Spraying Technology R&D Laboratories where they experience our business activities and our research and development work on thermal spray technology. Mutual understanding of the German and Japanese cultures is also deepened through exchanges during both work and private time with our employees. We are looking forward to resuming the intern program.



Overseas interns gaining hands-on experience (fiscal 2019)

Contributions to society

We maintain a special annual budget for providing donations to community and social contribution activities. The following are a few of our recent activities.

September 2023 Support for green funding for the Aichi Prefecture Green Transformation Project

We donated ¥200,000 to the “Green Funding” project of the Aichi Prefecture Revegetation Promotion Committee to raise funds for forest maintenance and greening activities.

August 2023 Donation to the 100th Anniversary Commemorative Project of the Department of Metallurgical Engineering of the School of Engineering at Tohoku University

We donated ¥1 million to the project to help the prestigious department continue cultivating materials researchers for another 100 years.

August 2023 Donation to Kobe University 120th Anniversary Commemoration

On the 120th anniversary of the founding of Kobe University, we donated ¥500,000 to help generate knowledge, develop human resources, enrich and improve the environment, and provide grants for student scholars.

August 2023 TOCALO Scholarship for International Students in the University of Hyogo Global Business Course

Following the ¥1 million scholarship provided in February, we decided to provide an additional ¥1 million scholarship for a second international student in the Global Business Course of the School of Economics and Management, University of Hyogo.

August 2023 Sponsorship of Hyogo Machinami Garden Show in Akashi 2023

We donated ¥100,000 to a flower and green event held in Akashi Park, which is home to the Akashi TOCALO Baseball Stadium^{*}

Note: TOCALO has acquired naming rights to the stadium

May-June 2023 Donations to support children and child-rearing

We donated to the following organizations to support their activities helping to raise healthy children and create environments that facilitate raising children.

- Kurashiki City Children's Fund (¥100,000)
- Food Bank Kitakyushu Life Again (¥500,000)
- Tokai City Picture Book Support Project for Families (¥500,000)

May 2023 Donations to Okayama University of Science

We donated ¥100,000 to be used for educational and research activities to foster the success of talented individuals in society.

May 2023 Corporate membership in the Kobe Philharmonic

Since fiscal 2023, we have become a corporate member of the Kobe Philharmonic Association (annual membership fee of ¥500,000), supporting the orchestra and showing a continued commitment to the arts in the Kobe area.

May 2023 Endorsement of the Green Fund of the National Land Afforestation Promotion Organization

In fiscal 2023, we once again donated ¥500,000 to the Green Fund to support the forest maintenance and greening activities of the National Land Afforestation Promotion Organization.



緑の募金

(Yen in thousands)

	FY2021	FY2022
Total spending for social contribution	6,460	10,600



March 2023 Sponsor of the 40th Kobe Jazz Street

We contributed ¥300,000 to the Kobe Jazz Street event, which will be held in October 2023 to celebrate the 100th anniversary of jazz music in Kobe.

February 2023 Donation to the Be Kobe Mirai Project

We became a corporate ambassador and donated ¥500,000 to the Be Kobe Mirai Project to support the youth who will be the future leaders of the city. Kobe Mayor Kizo Hisamoto is the honorary project leader.

February 2023 TOCALO Scholarship for International Students in the University of Hyogo Global Business Course

We continued our scholarship program by providing a ¥1 million scholarship to an international student in the Global Business Course of the School of Economics and Management, University of Hyogo.

February 2023 Endorsement of the Blue Carbon Creation Project on Kobe Airport Island (Purchase of J Blue Credits)

J Blue Credits are offset credits for “blue carbon,” which is carbon dioxide absorbed by marine and coastal ecosystems, such as seagrass beds. The funds generated by this project will be used to support private organizations working to conserve and create blue carbon as part of the Port of Kobe’s efforts to become carbon neutral and Kobe Airports’ efforts to decarbonize its operation. TOCALO has announced its endorsement and contributed ¥900,000 to the project.

January-February 2023 Donations to support children and child-rearing

We donated a total of ¥2.2 million to the following organizations to support their activities helping to raise healthy children and create environments that facilitate raising children.

- Funabashi, Chiba Prefecture (Corporate Hometown Tax)
- Akashi, Hyogo Prefecture (Corporate Hometown Tax)
- Harima, Kako, Hyogo Prefecture (Corporate Hometown Tax)
- Akashi City Children's Fund
- Hyogo Children's Support Organization NPO

January 2023 Donation to the Young Member Fellowship Fund of the Japan Thermal Spray Society

We donated ¥200,000 to foster young researchers involved in thermal spraying and to advance the development of the thermal spray industry.

In August 2022, TOCALO made a contribution of ¥200,000 in support of WWF Japan.

July 2022 Donation to the Kibou no Machi Project of Kitakyushu City

We donated ¥1 million to help Houboku, an NPO in Kitakyushu City, build an integrated social welfare facility based on its concept of "a city where anyone can ask for help when they need it."

May 2022 Endorsement of the Green Fund of the National Land Afforestation Promotion Organization

We donated ¥500,000 to the Green Fund to support the forest maintenance and greening activities of the National Land Afforestation Promotion Organization.

May 2022 Donation to the Kobe Philharmonic Orchestra

At the request from the Kobe Philharmonic Association, we donated ¥1 million to promote cultural and artistic activities in our hometown of Kobe.

April 2022 Donation for humanitarian relief in Ukraine

We donated ¥3 million to the United Nations High Commissioner for Refugees (UNHCR) for humanitarian aid to those affected in Ukraine and surrounding areas.

December 2021 University of Hyogo Global Business Course TOCALO Scholarship

This fiscal year, we again provided TOCALO Scholarship, a one-year monthly scholarship of ¥80,000 to one international student of the Global Business Course of the School of Economics and Management.

June–July 2021 COVID-19 pandemic response support

We donated a total of ¥5.5 million to the following organizations to help healthcare professionals working day and night to protect society from the impact of the COVID-19 pandemic.

- Kobe Medical Support Fund
- Akashi, Hyogo Prefecture
- Tokai, Aichi Prefecture
- Kurashiki Riverside Hospital (Ohara HealthCare Foundation)
- Funabashi, Chiba Prefecture
- Harima, Kako, Hyogo Prefecture
- Fukuoka Prefecture
- Tohoku University

August 2020 University of Hyogo Global Business Course TOCALO Scholarship

Under our agreement with the University of Hyogo to support the “development of human resources to play an active role in the international community,” we provided a one-year monthly scholarship of ¥80,000 to one international student of the Global Business Course of the School of Economics and Management. We are the first corporate entity to create a program at the university to provide continuing scholarship support to an international student.

June 2020 COVID-19 pandemic response support

We donated a total of ¥3.9 million to the following organizations to help healthcare professionals working day and night to protect society from the impact of the COVID-19 pandemic.

- Kobe, Hyogo Prefecture: Donation to the Kobe Medical Support Fund
- Kurashiki, Okayama Prefecture: Donation for pandemic response measures
- Funabashi, Chiba Prefecture: Donation to the Funabashi pandemic response measures
- Akashi, Hyogo Prefecture: Donation to the Akashi pandemic response support
- Harima, Kako, Hyogo Prefecture: Donation to support pandemic response measures of medical staff and childcare workers
- Tokai, Aichi Prefecture: Donation to purchase goods for medical professionals engaged in pandemic response activities
- Miyako Medical Association (Yukuhashi, Fukuoka Prefecture): Donation of 6,000 masks

December 2019 Support for Typhoon Hagibis reconstruction efforts

We donated ¥1 million to the reconstruction efforts of the city of Sano in Tochigi Prefecture, site of the Sano Factory of our subsidiary Japan Coating Center, and the town of Osato in Miyagi Prefecture, site of the Miyagi Technical Service Center, in the wake of Typhoon Hagibis in October 2019.

November 2019 Donations to the Hojo Railway Revitalization Support Project in Kasai

We donated ¥3 million to the Hojo Railway Revitalization Support Project to improve the local public transportation infrastructure in the city of Kasai in Hyogo Prefecture, which is within commuting distance from both our Kobe Factory and Akashi Factory.

September 2019 Support for international students at the University of Hyogo

We created a three-year fund to donate ¥1 million annually to the Global Business Course International Student Support Fund at the University of Hyogo. The fund will provide first-year scholarships for new international students.

July 2018 Donations for heavy rain disasters




We donated ¥3 million to the city of Kurashiki in Okayama Prefecture, site of our Mizushima Plant, to provide aid to victims and help reconstruct the city following the heavy rain events.

October 2016 Donations to the Kumamoto Reconstruction Assistance Project

We donated ¥5 million to the Kumamoto Reconstruction Assistance Project of Kumamoto University to help the reconstruction of Kumamoto University from damage incurred during the Kumamoto earthquakes in April 2016.

March 2011 Great East Japan Earthquake reconstruction support

We donated ¥20 million to the reconstruction efforts of Miyagi Prefecture and ¥10 million to the town of Osato in Miyagi Prefecture, site of our Miyagi Technical Service Center, which was under construction, from damage caused by the Great East Japan Earthquake.

Environment Society Governance 

Environment

Climate change measures

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
CO ₂ emissions (Scope 1 and 2) (Non-consolidated) (t-CO ₂)	19,193	16,750	15,950	17,450	6,990
CO ₂ emissions (Scope 1 and 2) / Sales (Non-consolidated) (t-CO ₂)	0.58	0.54	0.49	0.48	0.17
CO ₂ emissions (Scope 1 and 2) (Consolidated) (t-CO ₂)	—	—	—	31,121	16,118
CO ₂ emissions (Scope 1 and 2) / Sales (Consolidated) (t-CO ₂)	—	—	—	0.71	0.33
Electricity usage (Non-consolidated) (MWh)	39,816	40,155	39,824	42,491	42,891
Electricity usage / Sales (Non-consolidated) (MWh / millions of yen)	1.21	1.29	1.21	1.16	1.07
Electricity usage (Consolidated) (MWh)	—	—	—	66,371	65,025
Electricity usage / Sales (Consolidated) (MWh / millions of yen)	—	—	—	1.51	1.35

Note: See [Climate change measures](#) for more information.

Waste reduction

		Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Energy consumption volume	Electricity (MWh)	39,817	40,155	39,825	42,491	42,891
	Kerosene (kl)	217	229	209	203	188
	LPG (kg)	12,807	13,161	10,615	16,014	16,188
	Diesel (kl)	34	31	31	32	26
	Gasoline (kl)	100	108	101	88	88
	City gas (m ³)	110,227	128,768	160,944	165,732	149,164
Volume of use of raw materials	Thermal spray materials (t)	291.5	325.2	297.2	271.9	298.7
	Other materials (t)	65.8	74.0	59.2	94.3	113.1
Volume of waste emissions	Total industrial waste (t)	1,776.1	1,840.6	1,959.6	2,113.5	2,161.4
	Industrial waste (not including specially controlled industrial waste) (t)	1,709.1	1,758.9	1,883.0	2,017.6	2,022.7
	General business waste (t)	59.7	70.0	59.3	57.6	61.2
	Specially controlled industrial waste (t)	67.0	81.6	76.6	95.9	138.6
	Specially controlled industrial waste (hazardous waste) (t)	61.6	48.3	50.4	69.0	113.3
	Specially controlled industrial waste (non-hazardous waste) (t)	5.4	33.3	26.1	26.9	25.3
	Industrial waste / Sales (t / billions of yen)	51.8	56.4	57.4	55.3	50.3
	General business waste / Sales (t / billions of yen)	1.8	2.2	1.8	1.6	1.5
	Specially controlled industrial waste / Sales (t / billions of yen)	2.0	2.6	2.3	2.6	3.5
Volume of emissions to atmosphere	PRTR Law Class 1 Designated Chemical Substances (t)	3.1	2.5	1.0	1.0	1.3

		Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Volume of water intake	Clean water (m ³)	63,525.0	63,610.0	65,850.0	69,552.0	78,410.0
	Pure water (m ³)	29.8	19.8	18.1	16.5	18.0
	Groundwater (m ³)	0.0	0.0	0.0	0.0	0.0
Effluent volume	Sewage (m ³)	47,613.0	47,625.0	49,338.0	54,776.0	60,818.0
	Sewage (treated plant wastewater) (m ³)	2,330.4	2,528.0	1,640.1	1,939.4	1,518.1
	Seawater (m ³)	11,283.0	10,434.0	10,984.0	9,193.0	9,710.0
Recycling volume	Metal scraps (t)	145.8	90.6	108.4	90.1	111.7
	Thermal spray material waste (t)	24.1	28.6	27.4	21.2	15.1
	Blasting material waste (t)	569.1	570.8	716.4	686.2	715.6
	Oil waste/Solvent waste (t)	11.2	9.2	12.0	12.0	16.6
	Paper (t)	29.9	19.2	46.2	38.3	33.2

Note: See [Waste reduction and environmental conservation](#) for more details.

Social

Human resources data (non-consolidated)

			Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Percentage of female employees	Regular employees		—	—	—	9.5% (71 of 750)	12.3% (100 of 811)
	Temporary employees		—	—	—	38.5% (67 of 174)	39.9% (55 of 138)
Percentage of female executives			—	—	—	9.1% (2 of 22)	9.1% (2 of 22)
Percentage of female workers in management positions			—	—	—	1.4% (2 of 140)	2.3% (3 of 131)
Percentage of female workers among new hires	Regular employees		—	—	—	12.8% (6 of 47)	27.7% (13 of 47)
	Temporary employees		—	—	—	27.3% (6 of 22)	45.8% (11 of 24)
Percentage of temporary employees*1			—	—	—	18.8% (174 of 924)	14.5% (138 of 949)
Average consecutive tenure by gender	Regular employees	Male	—	—	—	12.8 years	13.1 years
		Female	—	—	—	9.5 years	9.7 years
	Temporary employees	Male	—	—	—	13.0 years	11.1 years
		Female	—	—	—	7.6 years	4.8 years
Voluntary turnover rate*2			—	—	—	2.3% (21 of 924)	0.8% (8 of 949)

*1 Temporary employees are directly-hired employees, such as part-time and contract employees, and do not include dispatched employees

*2 Excluding mandatory retirements of regular, contract, and other full-time employees

Human resources data (consolidated)

			Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Percentage of female employees	Regular employees		—	—	—	16.6% (198 of 1,196)	19.4% (252 of 1,300)
	Temporary employees		—	—	—	40.4% (111 of 275)	43.3% (71 of 164)
Percentage of female executives			—	—	—	4.4% (2 of 45)	4.2% (2 of 48)
Percentage of female workers in management positions			—	—	—	5.0% (11 of 218)	5.3% (11 of 207)
Percentage of female workers among new hires	Regular employees		—	—	—	19.8% (21 of 106)	35.7% (41 of 115)
	Temporary employees		—	—	—	34.9% (15 of 43)	53.6% (15 of 28)
Percentage of temporary employees ^{※1}			—	—	—	18.7% (275 of 1,471)	11.2% (164 of 1,464)
Average consecutive tenure by gender	Regular employees	Male	—	—	—	11.7 years	11.9 years
		Female	—	—	—	9.7 years	9.3 years
	Temporary employees	Male	—	—	—	9.3 years	11.5 years
		Female	—	—	—	6.3 years	5.6 years
Voluntary turnover rate ^{*2}			—	—	—	5.4% (80 of 1,471)	3.1% (45 of 1,464)

*1 Temporary employees are directly-hired employees, such as part-time and contract employees, and do not include dispatched employees

*2 Excluding mandatory retirements of regular, contract, and other full-time employees

Percentage of mid-career hires (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Percentage of mid-career hires	36%	29%	30%	21%	46.8% (22 of 47)

Note: Including appointments of dispatched employees to regular employee positions, and excluding appointments of contract employees to regular employee positions. New graduates hired outside of April are considered new graduate hires

Average paid holiday utilization rate (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Average paid holiday utilization rate	—	70%	66%	66.0%	76.5%

Note: Paid holiday utilization rate = Number of paid holidays utilized / Number of paid holidays granted (not including portion carried over from previous fiscal year) x 100

Average paid holiday utilization rate = Combined paid holiday utilization rate for all employees / Total number of employees

Use of caregiver leave (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Number of eligible employees	—	0	0	0	0
Number of employees utilizing leave	—	0	0	0	0

Note: Caregiver leave is for taking care of a family member in need of nursing care for at least two weeks

Use of childcare leave (non-consolidated)

		Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Number of eligible employees	Male	—	25	19	32	25
	Female	—	7	8	2	3
	Total	—	32	27	34	28
Number of employees utilizing leave	Male	—	0	0	10	17
	Female	—	7	8	2	3
	Total	—	7	8	12	20

Use of nursing leave (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Male	—	4	4	8	13
Female	—	3	2	5	7
Total	—	7	6	13	20

Note: Nursing leave is for taking care of a family member in need of nursing care

Note: Including people who took hourly-based leave; a person who took multiple leaves during the fiscal year is counted as a single person taking leave

Use of care leave (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Male	—	18	12	22	27
Female	—	7	2	5	8
Total	—	25	14	27	35

Note: Care leave is for raising children until they begin attending elementary school

Note: Including people who took hourly-based leave; a person who took multiple leaves during the fiscal year is counted as a single person taking leave

Percentage of employees with disabilities (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Percentage of employees with disabilities	—	—	—	2.88%	2.71%

Gender pay gap (non-consolidated)

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Regular employees	—	—	—	—	70.2%
Temporary employees	—	—	—	—	62.3%

Note: See [Diversity](#) for more details about our human resource initiatives.

Governance

	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Percentage of outside directors	—	—	—	50.0% (4 of 8)	50.0% (4 of 8)
Percentage of female directors	—	—	—	25.0% (2 of 8)	25.0% (2 of 8)
Number of consultations received through the Clean Line System	—	—	—	6	4
Number of consultations received through the external reporting system	—	—	—	9	4



Sustainability

GRI Standards reference table

Data on this website is presented in reference to the GRI Sustainability Reporting Standards. Further details on each item are available at the provided links.

[GRI 2 : General Disclosures](#)
[GRI 3: Material Topics](#)
[200 : Economic](#)
[300 : Environmental](#)
[400 : Social](#)

GRI 2 : General Disclosures

1.The organization and its reporting practices

Number	Title of disclosure	Corresponding page
2-1	Organizational details	About us > Company data ▶
2-2	Entities included in the organization’s sustainability reporting	—
2-3	Reporting period, frequency and contact point	Sustainability ▶
2-4	Restatements of information	Sustainability > Environment > Material balance ▶

Number	Title of disclosure	Corresponding page
2-5	External assurance	—

2. Activities and workers

Number	Title of disclosure	Corresponding page
2-6	Activities, value chain and other business relationships	About us > Company data >
		Technology >
2-7	Employees	Sustainability > ESG data >
2-8	Workers who are not employees	—

3. Governance

Number	Title of disclosure	Corresponding page
2-9	Governance structure and composition	Investor relations > Governance > Corporate governance >
2-10	Nomination and selection of the highest governance body	Investor relations > Governance > Corporate governance >
2-11	Chair of the highest governance body	Investor relations > Governance > Corporate governance >
2-12	Role of the highest governance body in overseeing the management of impacts	Investor relations > Governance > Corporate governance >
2-13	Delegation of responsibility for managing impacts	—

Number	Title of disclosure	Corresponding page
2-14	Role of the highest governance body in sustainability reporting	Investor relations > Governance > Corporate governance ▶
2-15	Conflicts of interest	—
2-16	Communication of critical concerns	—
2-17	Collective knowledge of the highest governance body	Investor relations > Governance > Corporate governance ▶
2-18	Evaluation of the performance of the highest governance body	Investor relations > Governance > Corporate governance ▶
2-19	Remuneration policies	Investor relations > Governance > Corporate governance ▶
2-20	Process to determine remuneration	Investor relations > Governance > Corporate governance ▶
2-21	Annual total compensation ratio	—

4. Strategy, policies and practices

Number	Title of disclosure	Corresponding page
2-22	Statement on sustainable development strategy	Sustainability > Message from the president ▶
2-23	Policy commitments	Sustainability > Society > Respect for human rights ▶
2-24	Embedding policy commitments	Sustainability > Society > Respect for human rights ▶
2-25	Processes to remediate negative impacts	—

Number	Title of disclosure	Corresponding page
2-26	Mechanisms for seeking advice and raising concerns	—
2-27	Compliance with laws and regulations	No violation (FY2022)
2-28	Membership associations	—

5. Stakeholder engagement

Number	Title of disclosure	Corresponding page
2-29	Approach to stakeholder engagement	—
2-30	Collective bargaining agreements	—

GRI 3: Material Topics

Number	Title of disclosure	Corresponding page
3-1	Process to determine material topics	—
3-2	List of material topics	Sustainability > Long-term vision and materiality ▶
3-3	Management of material topics	Sustainability > Long-term vision and materiality ▶

200 : Economic

Economic Performance

Number	Title of disclosure	Corresponding page
201-1	Direct economic value generated and distributed	Investor relations > Management policy > Financial highlights ▶
201-2	Financial implications and other risks and opportunities due to climate change	Investor relations > Business risks ▶
		Sustainability > Environment > Response to the TCFD recommendations ▶
201-3	Defined benefit plan obligations and other retirement plans	—
201-4	Financial assistance received from government	—

Market Presence

Number	Title of disclosure	Corresponding page
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—
202-2	Proportion of senior management hired from the local community	—

Indirect Economic Impacts

Number	Title of disclosure	Corresponding page
203-1	Infrastructure investments and services supported	—
203-2	Significant indirect economic impacts	—

Procurement Practices

Number	Title of disclosure	Corresponding page
204-1	Proportion of spending on local suppliers	—

Anti-corruption

Number	Title of disclosure	Corresponding page
205-1	Operations assessed for risks related to corruption	—
205-2	Communication and training about anti-corruption policies and procedures	Sustainability > Long-term vision and materiality ▶
205-3	Confirmed incidents of corruption and actions taken	Investor relations > Governance > Compliance ▶

Anti-competitive Behavior

Number	Title of disclosure	Corresponding page
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	No violation (FY2022)

Tax

Number	Title of disclosure	Corresponding page
207-1	Approach to tax	—
207-2	Tax governance, control, and risk management	—
207-3	Stakeholder engagement and management of concerns related to tax	—
207-4	Country-by-country reporting	—

300 : Environmental

Materials

Number	Title of disclosure	Corresponding page
301-1	Materials used by weight or volume	Sustainability > Environment > Material balance ▶
301-2	Recycled input materials used	—
301-3	Reclaimed products and their packaging materials	—

Energy

Number	Title of disclosure	Corresponding page
302-1	Energy consumption within the organization	Sustainability > Environment > Material balance ▶
		Sustainability > Environment > Climate change measures ▶
302-2	Energy consumption outside of the organization	—
302-3	Energy intensity	—
302-4	Reduction of energy consumption	Sustainability > Environment > Material balance ▶
		Sustainability > Environment > Climate change measures ▶
302-5	Reduction in energy requirements of products and services	—

Water and Effluents

Number	Title of disclosure	Corresponding page
303-1	Interactions with water as a shared resource	—
303-2	Management of water discharge-related impacts	—
303-3	Water withdrawal	Sustainability > Environment > Material balance ▶

Number	Title of disclosure	Corresponding page
303-4	Water discharge	Sustainability > Environment > Material balance ▶
		Sustainability > Environment > Waste reduction and environmental conservation ▶
303-5	Water consumption	Sustainability > Environment > Material balance ▶

Biodiversity

Number	Title of disclosure	Corresponding page
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	—
304-2	Significant impacts of activities, products, and services on biodiversity	—
304-3	Habitats protected or restored	—
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—

Emissions

Number	Title of disclosure	Corresponding page
305-1	Direct (Scope 1) GHG emissions	Sustainability > Environment > Climate change measures ▶
		Sustainability > Environment > Response to the TCFD recommendations ▶
		Sustainability > ESG data ▶
305-2	Energy indirect (Scope 2) GHG emissions	Sustainability > Environment > Climate change measures ▶
		Sustainability > Environment > Response to the TCFD recommendations ▶
		Sustainability > ESG data ▶
305-3	Other indirect (Scope 3) GHG emissions	—
305-4	GHG emissions intensity	Sustainability > Environment > Climate change measures ▶
305-5	Reduction of GHG emissions	Sustainability > Environment > Climate change measures ▶
		Sustainability > ESG data ▶
305-6	Emissions of ozone-depleting substances (ODS)	—
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Sustainability > Environment > Waste reduction and environmental conservation ▶

Waste

Number	Title of disclosure	Corresponding page
306-1	Waste generation and significant waste-related impacts	Sustainability > Environment > Waste reduction and environmental conservation ▶
306-2	Management of significant waste-related impacts	—
306-3	Waste generated	Sustainability > Environment > Waste reduction and environmental conservation ▶
306-4	Waste diverted from disposal	Sustainability > Environment > Material balance ▶
306-5	Waste directed to disposal	Sustainability > Environment > Waste reduction and environmental conservation ▶

Supplier Environmental Assessment

Number	Title of disclosure	Corresponding page
308-1	New suppliers that were screened using environmental criteria	—
308-2	Negative environmental impacts in the supply chain and actions taken	—

400 : Social

Employment

Number	Title of disclosure	Corresponding page
401-1	New employee hires and employee turnover	Sustainability > ESG data ▶
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—
401-3	Parental leave	Sustainability > Society > Diversity ▶
		Sustainability > ESG data ▶

Labor/Management Relations

Number	Title of disclosure	Corresponding page
402-1	Minimum notice periods regarding operational changes	—

Occupational Health and Safety

Number	Title of disclosure	Corresponding page
403-1	Occupational health and safety management system	Sustainability > Society > Occupational safety and health ▶

Number	Title of disclosure	Corresponding page
403-2	Hazard identification, risk assessment, and incident investigation	—
403-3	Occupational health services	Sustainability > Society > Occupational safety and health ▶
403-4	Worker participation, consultation, and communication on occupational health and safety	Sustainability > Society > Occupational safety and health ▶
403-5	Worker training on occupational health and safety	Sustainability > Society > Occupational safety and health ▶
403-6	Promotion of worker health	Sustainability > Society > Occupational safety and health ▶
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Sustainability > Society > Occupational safety and health ▶
403-8	Workers covered by an occupational health and safety management system	Sustainability > Society > Occupational safety and health ▶
403-9	Work-related injuries	—
403-10	Work-related ill health	—

Training and Education

Number	Title of disclosure	Corresponding page
404-1	Average hours of training per year per employee	—

Number	Title of disclosure	Corresponding page
404-2	Programs for upgrading employee skills and transition assistance programs	Sustainability > Society > Human resource development ▶
404-3	Percentage of employees receiving regular performance and career development reviews	—

Diversity and Equal Opportunity

Number	Title of disclosure	Corresponding page
405-1	Diversity of governance bodies and employees	Sustainability > ESG data ▶
405-2	Ratio of basic salary and remuneration of women to men	Sustainability > ESG data ▶

Non-discrimination

Number	Title of disclosure	Corresponding page
406-1	Incidents of discrimination and corrective actions taken	Sustainability > Society > Respect for human rights ▶

Freedom of Association and Collective Bargaining

Number	Title of disclosure	Corresponding page
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	—

Child Labor

Number	Title of disclosure	Corresponding page
408-1	Operations and suppliers at significant risk for incidents of child labor	—

Forced or Compulsory Labor

Number	Title of disclosure	Corresponding page
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	—

Security Practices

Number	Title of disclosure	Corresponding page
410-1	Security personnel trained in human rights policies or procedures	—

Rights of Indigenous Peoples

Number	Title of disclosure	Corresponding page
411-1	Incidents of violations involving rights of indigenous peoples	No violation (FY2022)

Human Rights Assessment

Number	Title of disclosure	Corresponding page
412-1	Operations that have been subject to human rights reviews or impact assessments	—
412-2	Employee training on human rights policies or procedures	Sustainability > Society > Respect for human rights ▶
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—

Local Communities

Number	Title of disclosure	Corresponding page
413-1	Operations with local community engagement, impact assessments, and development programs	Sustainability > Society > Social engagement ▶
413-2	Operations with significant actual and potential negative impacts on local communities	—

Supplier Social Assessment

Number	Title of disclosure	Corresponding page
414-1	New suppliers that were screened using social criteria	—
414-2	Negative social impacts in the supply chain and actions taken	—

Public Policy

Number	Title of disclosure	Corresponding page
415-1	Political contributions	—

Customer Health and Safety

Number	Title of disclosure	Corresponding page
416-1	Assessment of the health and safety impacts of product and service categories	—
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No violation (FY2022)

Marketing and Labeling

Number	Title of disclosure	Corresponding page
417-1	Requirements for product and service information and labeling	—
417-2	Incidents of non-compliance concerning product and service information and labeling	No violation (FY2022)
417-3	Incidents of non-compliance concerning marketing communications	No violation (FY2022)

Customer Privacy

Number	Title of disclosure	Corresponding page
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	No violation (FY2022)