

Environment Report

Forest-In Office 2022



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Editorial Policy

■ Editorial Policy

This content consists mainly of the environmental activities of AMADA CO., LTD. and the AMADA Group in Japan.

This report is intended for the various stakeholders of the company. The report is designed to provide an overview of the environmental activities and social contributions of the AMADA Group.

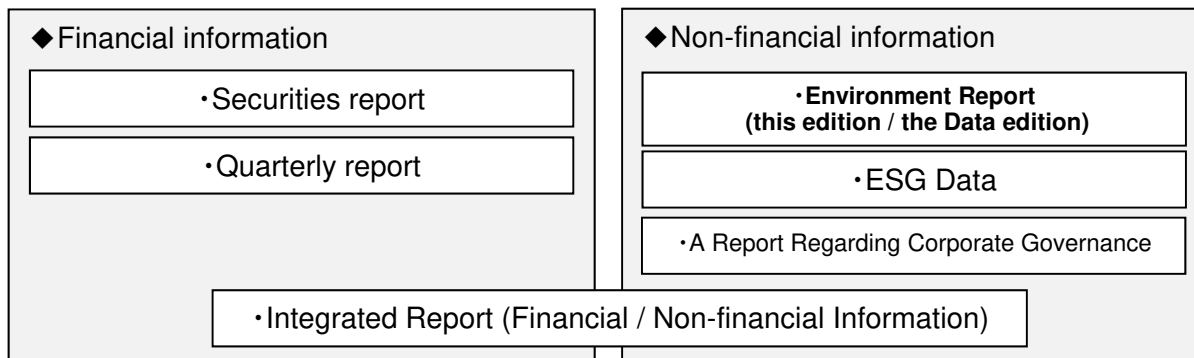
■ About the name “Forest-In Office”

“Forest-in” is a neologism created by AMADA.

AMADA seeks to be an office of the forest, rather than an office in the forest. The term thus refers to AMADA as “an office of the forest” that promotes activities that protects the natural environment.

■ The significance of Environment Report as part of AMADA’s information disclosing media

The significance of the Environment Report among all of AMADA Group’s information disclosing media is as follows:



■ Scope of the content

Reporting period: Fiscal 2021 (April 2021 to March 2022)

Relevant organizations: 13 domestic and 65 overseas companies

■ Issues

May, 2022 (Revised November, 2022)

■ Referenced guidelines

Environmental Reporting Guidelines 2018 of the Japanese Ministry of Environment, ISO26000

AMADA Group's management philosophy

Management Philosophy

1. Growing together with our customers

Our company has been sharing this philosophy as a starting point for all of our business activities since its formation. We believe that the creation and provision of new values based on customers' perspectives will strengthen the relationship of mutual trust between our customers and the AMADA Group, and become a source of mutual development.

2. Contribute to the international community through our business

Our company recognizes that contributing to "manufacturing" conducted by our customers throughout the world leads to the development not only of local communities, but also the international community as a whole, and we conduct our business activities with the aim of providing the highest quality of solutions in each market around the world by optimally distributing our group's management resources.

3. Develop human resources who pursue creative and challenging activities

Rather than being content with the present situation, we are constantly in search of new and better ideas to put into action in order to improve and enhance our business activities.

This is the AMADA Group's basic philosophy of human resource development, and we believe that AMADA's unique corporate culture will be further developed by continuing to practice this philosophy.

4. Corporate activities based on high ethics and fairness

We promote transparency and we comply with regulations in the AMADA Group's management and in all aspects of its business activities, and strive to further enhance its corporate value while conducting sound activities.

5. Take good care of people and the earth's environment

By treating the AMADA Group's stakeholders (such as shareholders, customers, business partners, employees and local residents) and the global environment with respect, we strive to continue to be a good company for both people and the earth.

AMADA Group Our Environmental Principles and Policy / Environmental Declaration

Environmental Principles and Policy

◇ Environmental principles

AMADA Group thinks that preservation of the earth, a small planet in macrocosmos, for the next generation is the biggest theme for human beings. Based on this idea, AMADA Group positions environmental preservation as one of its important management issues, and is committed to contributing to a prosperous future for people around the world through eco-friendly manufacturing, in order to pass down this beautiful earth to our descendants.

◇ Environmental policy

1. Provision of products and services for preservation of the environment

Evaluate environmental load throughout the product life cycle, provide energy-saving and resource-saving products and services which are free of hazardous substances, and contribute to environmental preservation and the economy.

2. Reduction of environmental load in business activities

In every process of business activities, thoroughly pursue reduction of environmental load by promoting energy efficiency improvements, energy saving, resource saving and recycling. Also, aggressively promote green procurement and try to eliminate the use of hazardous substances.

3. Biodiversity activities

Grasp effects of business activities on the natural environment and contribute to building a biodiversity-nurturing society in concert with stakeholders.

4. Compliance with environment-related laws

Comply with environment-related laws and other agreements concluded with stake holders.

5. Continuous improvement of environment management system

Build an environment management system and make continuous improvement of it. Grasp the effects of business activities, products and services on the environment. Set environmental goals and targets and reduce environmental load as well as prevent contamination.

6. Enhancement of education about environment

Provide education aimed at environment preservation to improve employees' sense of responsibility as a member of the company and also boost awareness of environment preservation.

Environmental Declaration

AMADA Group aggressively promotes environmental preservation activities to its management in order to realize sustainable development of its business and society. AMADA will help to build a bright and prosperous future for people around the world by optimally utilizing the engineering capabilities we have cultivated, and by providing environmentally-friendly, energy-saving products as a general manufacturer of metalworking machinery.

"Linkage through Eco-conscious Manufacturing"

AMADA Group aspires to become a business enterprise to link with customers, society and the world through eco-conscious manufacturing.

Producing eco-friendly machine at eco-friendly business establishment

All AMADA Group's operations are carried out with the aim of achieving optimal compatibility between environmental preservation and business activities through promotion of energy -and resource- saving efforts.

Our eco-friendly merchandise assists customers to manufacture eco-friendly products

AMADA Group's eco-friendly products enable customers to manufacture energy savings and highly efficient products at their plants.

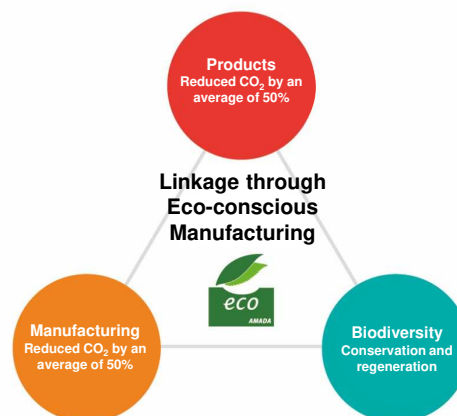
Creating eco-friendly environment at customers' plants

AMADA Group contributes to the creation of eco-friendly environments at customers' plants by utilizing its accumulated environmental know-how.

AMADA Group's Initiatives for the Environment

Passion for the initiatives

The initiatives taken by the AMADA Group for the environment is to become a business enterprise that connects with its customers, society, and the world through achieving "Linkage through Eco-conscious Manufacturing". Continuing after the Environmental Declaration that was set as the mid-term goal for 2020, established in 2010, AMADA has established a new mid-term goal, "2030 AMADA GREEN ACTION", which commits to promote three important goals: "a carbon neutral society", "actualizing a recycle-based society" and "preservation and restoration of biodiversity".



1. Reducing CO₂ emissions associated with our products : Reduction of CO₂ emission associated with our products by 50% , by 2030 (compared to 2013): Scope 3 – C11

Considering the overall CO₂ emission related to the whole AMADA Group business, Scope 3 (indirect greenhouse gas emission related to business within the supply chain) takes the majority, and it is most important to reduce the amount of CO₂ emitted by AMADA customers when they are using AMADA products. Thus, AMADA, as part of the laser strategy, will further promote the users of conventional carbon dioxide laser machines to install fiber laser machines which will reduce the energy consumption by 1/3 in comparison, and create many AMADA Eco Products such as combination machines that strengthen productivity by reducing the power consumption and integrating production processes; products shall be wholly renewed, aiming to achieve the carbon neutral goal, and AMADA will continue to take an initiative to reach the goal of reducing CO₂ emissions to 50% in the products by fiscal 2030.

In recent years, environmental issues such as climate change have become increasingly serious around the world. Climate change is now a situation that companies can no longer overlook, as it has had also a major impact in Japan, including a number of large-scale natural disasters caused by extreme weather events. Under the circumstance, response to climate change is AMADA's top priority among other various environmental issues, and will continue to reform the product strategy and business model to reach the 2050 carbon neutral goal. In order to do this, the AMADA Group made an announcement to support the TCFD (Task Force on Climate-related Financial Disclosures) recommendations. Furthermore, based on the recommendations, AMADA is disclosing information based on the TCFD framework regarding the assessment for the effect of risks and opportunities related to climate change on the company management (scenario analysis), etc.

2. Reducing CO₂ emissions associated with our business activities : Reducing emissions at facilities / factories by 50% (compared to 2013) by 2030: Scope 1 + 2

In April, 2021, the Japanese government announced the carbon reduction goal for 2030 to 46% from the original 26% (compared to 2013) along with the carbon neutral goal for 2050. As climate change counter measures and SDGs trends worldwide, the AMADA Group established a new organization, the Group Environment Project, in October, 2021 that is in charge of establishing carbon free goals and proposing strategies that would apply to the whole group. For CO₂ emissions of the facilities and factories (Scope 1 + 2), energy consumption was reduced by power saving measures that include upgrading the power saving features of the lighting system, renewing air-conditioning and heating equipment to systems with higher efficiency and improving the productivity with AMADA's original ideas, and as for renewable energy, AMADA is taking further efforts by purchasing renewable energy and green power accordingly, following the experience from several facilities overseas: AMADA will reduce CO₂ emissions by 50% before 2030, aiming for the 2050 carbon neutral goal.

In May, 2022, AMADA made an announcement to declare that the company will acquire the SBT (Science-Based Targets) certification, which are set greenhouse gasses reduction targets based on scientific facts for companies, based on Paris Agreements, and it was acquired in November, 2022.

In addition to responding to climate change, the Amada Group is also striving to achieve zero emissions at its factories to realize a recycle-based society as a priority environmental issue that requires special attention. We have also set targets for the reduction of total waste, and others for water resources, plastic issues, and chemical substance management in our business operations, and are promoting efforts in these areas.

3. Preservation and restoration of biodiversity

In Japan, the AMADA Group is currently taking initiative in preserving various ecosystems, leading with the "Office of the Forest" challenge which aims for the coexistence of the workers and nature at Isehara Works, where the headquarter is, as well as at our main production base of Fujinomiya works, and Toki Works, where a variety of plants are planted every year as a challenge of "creating an environment that brings in wild birds and insects".

Looking into 2030, the Group will grasp nature related risks and opportunities, continue with forest management and green infrastructure projects, and make further efforts for the preservation and restoration of biodiversity globally, focusing especially on the protection of rare species.

The AMADA Group will proceed with "linkage through eco-conscious manufacturing" from a long-term point of view, and through environmental projects and social contribution such as environment related investments under the decarbonization strategy and the 2050 carbon neutral projects, we will grow to bring our vision of becoming a century old company to come true.

As a general manufacturer of metalworking machinery, the AMADA Group will continue to promote reforms in response to the rapidly changing global market and contribute to a prosperous future for people around the world through our *monozukuri* manufacturing.

Information Disclosure Related to Climate Change, Based on the TCFD Recommendations

The AMADA Group recognizes that the company's response to climate change is one of the most important agenda for its management. In this context, in April, 2022, the AMADA Group made an announcement to support the TCFD (Task Force on Climate-related Financial Disclosures) recommendations. Furthermore, based on the recommendations, AMADA is disclosing information based on the TCFD framework regarding the evaluation of effect of risks and opportunities related to climate change on the company management (scenario analysis), etc.

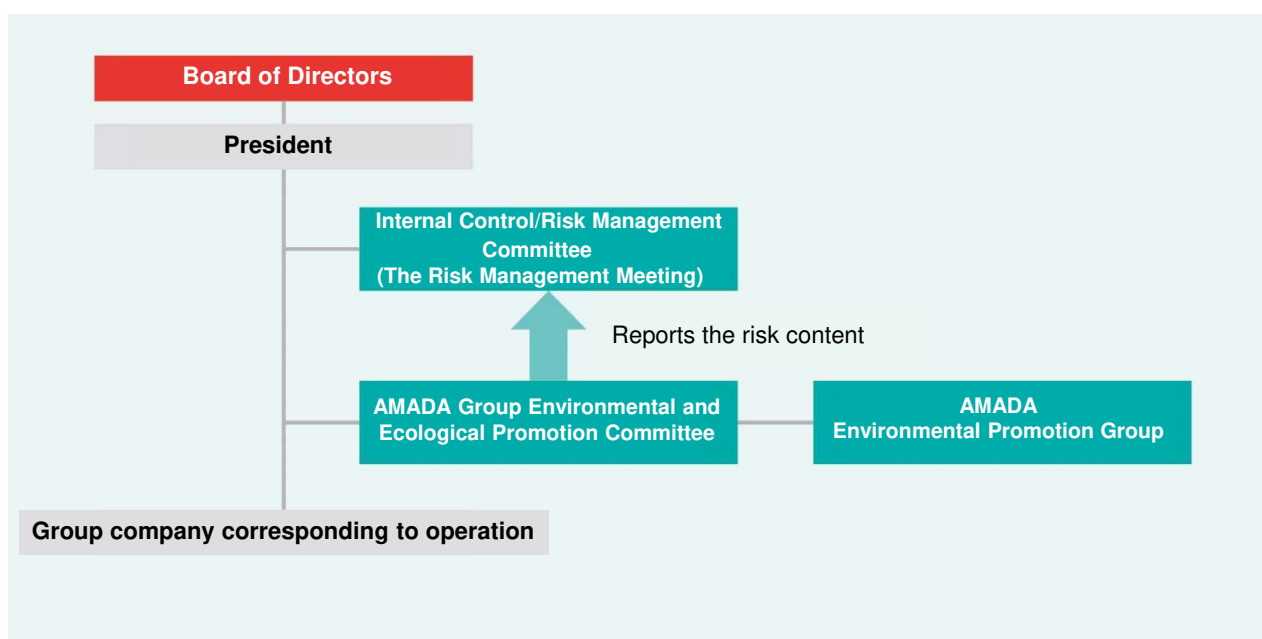
◆ Governance

The AMADA Group is taking action against environmental problems including climate change under the AMADA Group Environmental and Ecological Promotion Committee.

The AMADA Group Environmental and Ecological Promotion Committee has the "Factories and Facilities Committee" that proposes environmental measures for workplaces and the "Product Committee" that formulates environmental measures for products. Through both Committees, the Office collects environmental information from each workplace in Japan and overseas, formulates environmental measures in their areas, and manages the progress.

The agreed risks and opportunities from environmental factors such as climate change, as well as the goals and plans to respond to them, determined by the AMADA Group Environmental and Ecological Promotion Committee, along with their progress, are reported regularly to the Board of Directors through the Representative Director, to be utilized for the decision-making process for the management.

Climate change risk management structure



※Department in charge: The AMADA Environmental Promotion Group

◆ Strategy

When assessing risks and opportunities regarding climate change, it can roughly be sorted into two categories, one is the “transition” based on changes being made from new legislations and technologies due to the society aiming to achieve carbon neutrality and also changes in the market needs. The other is “physical” based on the rising temperature and extreme weather caused by it, and also chronic climate change. The AMADA Group evaluated the content, its impact to the businesses, time-period for the lasting effect, etc., depending on these two types of risks and opportunity framework; they are identified as listed below. Furthermore, taken measures for these risks and opportunities and the financial impact from them are also indicated. To identify the risks and opportunities mentioned, we have analyzed several scenarios, and the results are reflecting those scenario analysis.

The AMADA Group believes that product strategies that advances the company’s *monozukuri* manufacturing reformation such as the creation of highly-efficient energy-saving AMADA ECO PRODUCTS, fiber optical control technology and automation in the laser business, etc. are highly important.

Major climate change related risks and opportunities

Items of risks and opportunities			Business impact		Future risk severity※1		Response to the risk / opportunity
Category	Sub-category	Further sub-category	Time period ※2	Consideration	2°C scenario	4°C scenario	
Transition risk	Political policies / regulations	Carbon pricing / emissions trading	Long-term	<ul style="list-style-type: none"> By carbon pricing and emissions trading being introduced, the production cost will increase 			With reduced CO ₂ emissions based on the mid-term environmental plan, the aim is to reduce the cost of carbon pricing within production
	Market	Energy and materials Rise of cost	Mid- to long-term	<ul style="list-style-type: none"> Rise of crude steel price as a response to decarbonization technologies Rise of electricity prices due to the increased price for renewable energy promotion surcharge 			Creation of producible product with less resources and expand the utilization of renewable energy
	Reputation	Changes of reputation from stakeholders (investors, etc.)	Short- to mid-term	<ul style="list-style-type: none"> Inadequate measures to address climate change will have a negative impact on the reputation of investors, the cost of complying with disclosure and reporting requirements in some countries, financial arrangements, and recruitment. Increased costs for complying to the ESG information disclosure standard from it being more strict 			Taking actions for international initiatives such as acquiring SBT certificate and publicizing sufficient information regarding actions against climate change using the company’s website, etc.
Opportunities	Products and services	Diffusion of low-carbon products	Mid- to long-term	<ul style="list-style-type: none"> Creation of new AMADA ECO PRODUCTS (highly efficient energy-saving products). Increased profits by resolving the agendas regarding product creation, such as implementing fiber optical control technology and automation in the laser business, energy-saving utilizing IoT and stable operation 			Further creation of AMADA ECO PRODUCTS based on the mid-term environmental plan
Physical risk	Chronic	Decreased productivity by water stress	Long-term	<ul style="list-style-type: none"> In case of a drought, the production cost could increase by the restriction of the use of water, and further investment may be required for system maintenance. 			Promote the reduction of water used in production
	Acute	Intensified extreme weather	Long-term	<ul style="list-style-type: none"> Damage on factory(ies) of the AMADA Group due to a typhoon, etc., could require for it to shutdown, decreased production, further investment for facility recovery, etc. In the occurrence of a flood, etc., supply chains may be cut off, causing a shutdown or decreased production 			Take measures with BCP, for example, installation of power generators and / or accumulators

※1 Evaluation of risks and opportunities are given for two scenarios: 2°C scenario and 4°C scenario. 2°C scenario uses the SDS (Sustainable Development Scenario) of the IEA (International Energy Agency) and RCP 2.6 scenario of the IPCC (Intergovernmental Panel on Climate Change) as an external referential scenario.

On the other hand, 4°C scenario refers to the CPS (Current Policies Scenario) of the IEA and RCP8.5 scenario of the IPCC.

※2 Regarding the time period, short-term refers to one year, mid-term refers to 1 to 10 years, and long-term refers to over 10 years.

◆ Financial impact from climate change risks (2°C scenario)

In the 2°C scenario, which is likely to impact the AMADA Group more, the financial impact caused by climate change related risks are estimated as stated below.

Regarding the risk of a possible increase of cost due to the future rise of carbon pricing, the cost AMADA will cover is estimated below based on the 2030 carbon pricing being 10,000 yen/t-CO₂, calculated from advanced countries' price assumption under SDS scenario of the IEA.

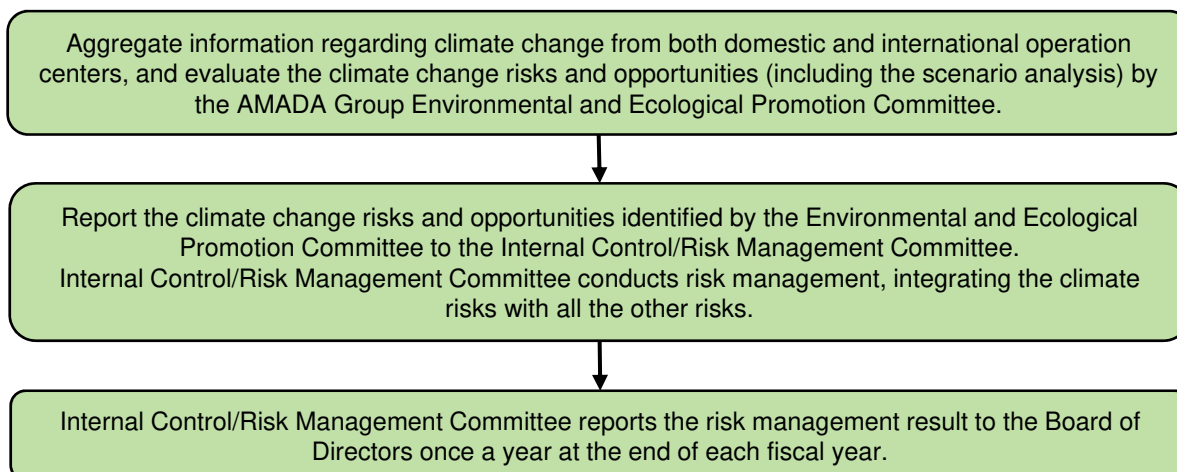
Index	Intended year	Estimated unit price	Estimated CO ₂ emission※	Cost
Carbon pricing	2030	10,000 yen/t-CO ₂	29,593t-CO ₂	296 (million yen)

※CO₂ emission is estimated as Δ50% of Scope 1 + 2 volume of emission in fiscal 2013 from all facilities and factories, based on the Group's target.

Risk Management

Actions and management of climate change risks are managed by the AMADA Group Environmental and Ecological Promotion Committee. Specified risks and opportunities are reported to the Risk Management Department within the Internal Control/Risk Management Committee. The Internal Control/Risk Management Committee determines the policies regarding significant risks from the group level (people, goods, capital, information, etc.), and they are managed while integrated with other risks. The risk management results are reported to the Board of Directors at the end of the fiscal year, to be utilized for the decision-making process for the management.

◆ The flow for climate change risk management



◆ Indicators and goals

The AMADA Group, as a goal to manage the risks and opportunities regarding climate change, has set a group target of “reducing CO₂ emissions from Scope 1 + 2 by 50% in 2030, compared to fiscal 2013” and “reducing CO₂ emissions from Scope 3 C11 by 50% in 2030, compared to fiscal 2013”, and is continuing to take actions to achieve these targets. The Group's CO₂ emission reduction targets are compliant to “SBT (greenhouse gasses reduction targets based on scientific facts)” standards, which the company has acquired its certificate in November, 2022. For the details of further action plans regarding the environment, please refer to the “Mid-Term Environmental Plan” on the next page.

Also, for the detailed results of CO₂ emissions from Scope 1 to 3, please refer to the “Environment Report (Data Edition)”.

Mid-Term Environmental Plan

	Goals for FY 2030	Goals for FY 2025 (intermediate)
① Actualizing a carbon neutral society	<ul style="list-style-type: none"> To provide AMADA ECO PRODUCTS that contribute to decarbonization CO₂ emission from all products: △50.0% ※ FY 2013 reference: 811,635t-CO₂ (Japan: 336,011t-CO₂, overseas: 475,624t-CO₂) <ul style="list-style-type: none"> To take energy-saving measures (upgrading lighting and AC systems, improving productivity) CO₂ emission from all facilities and factories: △50.0% ※ FY 2013 reference: 59,185t-CO₂ (Japan: 37,163t-CO₂, overseas: 59,185t-CO₂) 【SCOPE1+2】 	<ul style="list-style-type: none"> To provide AMADA ECO PRODUCTS that contribute to decarbonization CO₂ emissions from all products: △35.0% <ul style="list-style-type: none"> To take energy-saving measures (upgrading lighting and AC systems, improving productivity) CO₂ emissions from all facilities and factories: △33.6%
② Actualizing a recycle-based society	<p>Effective use of resources</p> <ul style="list-style-type: none"> Total volume of waste_{※1} (compared to FY 2019): △10.0% ※ FY 2019 reference: 6,251t (Japan: 3,735t-CO₂, overseas: 2,516t-CO₂) Total volume of landfilled waste (compared to FY 2019): △10.0% ※ FY 2019 reference: 30.2t (in Japan) Zero-emission rate_{※2} (compared to FY 2019): under 0.73% (in Japan) ※ FY 2019 reference: 0.81% (in Japan) Reduced volume of water used (compared to FY 2019): △10.0% ※ FY 2019 reference: 4,275,000m³ (Japan: 2,653,000m³, overseas: 1,622,000m³) 	<p>Effective use of resources</p> <ul style="list-style-type: none"> Total volume of waste (compared to FY 2019): △5.5% Total volume of landfilled waste (compared to FY 2019): △5.5% Zero-emission rate (compared to FY 2019): under 0.765% (in Japan) Reduced volume of water used (compared to FY 2019): △5.5%
③ Regulated Chemicals Control	<p>Appropriate management and reduction of regulated chemical substances (in Japan)</p> <ul style="list-style-type: none"> Hazardous chemicals (compared to FY 2019): △10.0% (Fujinomiya Works) ※ FY 2019 reference: 36,395kg Abolishment of all mercury contained equipment (fluorescent lamp) 	<p>Appropriate management and reduction of regulated chemical substances (in Japan)</p> <ul style="list-style-type: none"> Hazardous chemicals (compared to FY 2019): △5.5%
④ Biodiversity	<p>Grasp the nature related risks and opportunities, and take actions on preservation and restoration of biodiversity (in Japan)</p> <ul style="list-style-type: none"> Forest management (Fujinomiya) and installation of green infrastructure (each facility / factory) 	<p>Grasp the nature related risks and opportunities, and take actions on preservation and restoration of biodiversity (in Japan)</p> <ul style="list-style-type: none"> Forest management (Fujinomiya) and installation of green infrastructure (each facility / factory)

※1 Part of the related company data for the fiscal 2019 waste reference uses the data from FY 2020 (due to the year's data being non-existent)

※2 Zero-emission rate = (the weight of landfilled waste / the weight of all)

Mid-Term Environmental Plan

	Goals for FY 2021	2021 Performance
① Actualizing a carbon neutral society	<ul style="list-style-type: none"> By providing the AMADA ECO PRODUCTS that contribute to decarbonization, CO₂ emission from all products: $\Delta 27.0\%$ (compared to FY 2013) 	<ul style="list-style-type: none"> CO₂ emission from all products: $\Delta 57.3\%$ (346,291t-CO₂) [Accomplished] <ul style="list-style-type: none"> [Japan] $\Delta 54.5\%$ (153,042t-CO₂) [Accomplished] [Overseas] $\Delta 59.4\%$ (193,249t-CO₂) [Accomplished]
	<ul style="list-style-type: none"> With energy-saving actions (upgrading lighting and AC systems, improving productivity), CO₂ emission from all facilities and factories: $\Delta 12.9\%$ (compared to FY 2013) [Scope 1 + 2] 	<ul style="list-style-type: none"> CO₂ emission from all facilities and factories: $\Delta 17.3\%$ (48,938t-CO₂) [Accomplished] <ul style="list-style-type: none"> [Japan] $\Delta 14.8\%$ (31,675t-CO₂) [Accomplished] [Overseas] $\Delta 21.6\%$ (17,263t-CO₂) [Accomplished]
② Actualizing a recycle-based society	<ul style="list-style-type: none"> Total volume of waste: $\Delta 1.8\%$ (compared to FY 2019) 	<ul style="list-style-type: none"> Total volume of waste: increased by 7.5% (6,720t-CO₂) [Unaccomplished] <ul style="list-style-type: none"> [In Japan] Increased by 12.5% (4,203t) [Unaccomplished] [Overseas] Increased by 0.04% (2,517t) [Unaccomplished]
	<ul style="list-style-type: none"> Total volume of landfilled waste: $\Delta 1.8\%$ (compared to FY 2019) Zero-emission rate: under 0.795% (in Japan) Volume of water used: $\Delta 1.8\%$ (compared to FY 2019) 	<ul style="list-style-type: none"> Total volume of landfilled waste: $\Delta 7.6\%$ (27.9t) [Accomplished] Zero-emission rate (compared to FY 2019): 0.54% (in Japan) [Accomplished] Volume of water used (compared to FY 2019): <ul style="list-style-type: none"> $\Delta 16.5\%$ (3,570,000m³) [Accomplished] [In Japan] $\Delta 18.8\%$ (2,153,000m³) [Accomplished] [Overseas] $\Delta 12.6\%$ (1,417,000m³) [Accomplished]
③ Regulated Chemicals Control	<ul style="list-style-type: none"> Hazardous chemicals: $\Delta 1.0\%$ (Fujinomiya Works) 	<ul style="list-style-type: none"> Hazardous chemicals (compared to FY 2019): $\Delta 1.5\%$ (reduced 562kg: Fujinomiya Works) [Accomplished]
④ Biodiversity	<ul style="list-style-type: none"> Green infrastructure[※] introduced (Isehara Works) <p><small>※Green infrastructure refers to the actions that utilize various functions in the natural environment in the development of social infrastructure, land use, etc. in both tangible and intangible ways, making efforts for a sustainable national and regional development.</small></p>	<ul style="list-style-type: none"> Introduced a green infrastructure at the AMADA FORUM (Isehara Works) (installed a “rain garden” with a function of storing rain water)

The AMADA Group has set targets that are SBT (Science-based Targets) (Certified in November, 2022).

The AMADA Group has set corporate reduction targets, or “SBT (greenhouse gasses reduction targets based on scientific facts)”, that are based on the “Paris Agreements” that stands as the international framework for global warming countermeasures. The reduction targets of greenhouse gasses set by each certified company is expected to contribute to the international target of controlling the increasing global temperature to well below 2°C from pre-industrial revolution period, and aim to limit it to 1.5°C. The AMADA Group’s SBT (Scope 1 + 2) fulfils the requirements for the scenario of limiting global warming to under 1.5°C.

■ Scope 1 +2: FY 2030 $\Delta 46.2\%$ (FY 2019 reference: 53,856t-CO₂); Scope 3 (Category 1 and Category 11): $\Delta 27.5\%$ (FY 2019 reference: 1,842,786t-CO₂).

Actualizing a carbon neutral society



Reducing CO₂ emissions associated with our products

The AMADA Group will reduce CO₂ emissions throughout the product lifecycle, contributing to the actualization of a carbon neutral society. As the AMADA Group products are industrial goods, the reduction of CO₂ emissions in our products' life cycles during times of use by our customers is of particular importance. We will promote product development with high technological skills, and will create highly ecological products that are productive but can also conserve energy (AMADA Eco Products).

The AMADA Group operates with two systems to evaluate the ecological features of its products, which are product assessment and AMADA Eco Products certification.

◆ Product assessment system

The product assessment system is a process of conducting a design review (DR)^{*1} during every product development stage, aimed to prevent providing our customers with products with a large environment load compared to conventional machines. A total of 25 evaluation items are set from eight different criteria for the product assessment to evaluate ecological features of products, such as energy consumption (the amount of CO₂ emission) when using the product.

The assessment is applied to every new product being developed, and we have established a general rule that the products that do not reach the standard cannot be released.

◆ AMADA Eco Products certification system

The AMADA Eco Products certification is a system that certifies a product as one of the AMADA Eco Products if it passes the company's "energy-saving improvement rate" and "productivity improvement rate" standards compared to a comparative machine (or a past model), examined after the completion of product assessment conducted after the final design review (DR). Certified products are granted the AMADA Eco Products mark.

From the time planning and design is conducted for new products, AMADA Eco Products take into consideration new technologies meant to improve environmental performance, including resource conservation, noise reduction and energy-saving performance. The AMADA Eco Products certification system examines the effectiveness of these efforts.


The following 4 items provide the definition of AMADA Eco Products:

- ① **Achieves energy conservation at the time of use compared with conventional models.**
 - ② **Achieves increased productivity as well compared with conventional models.**
 - ③ **Lowers running costs for product processing and reduces manufacturing costs through energy conservation and increased productivity, enabling the product to generate profit.**
 - ④ **Enables provision of proposals for new product processing methods through the use of new processing technology.**
- (Recommended requirements)

① and ② are evaluated using processing samples from actual processing carried out by customers. The assessment method involves actually processing the processing samples with both conventional models and new products and evaluating their improvements of environmental performance based on their rates of energy-saving performance improvement and productivity improvement.


^{*1} Design Review (DR): A review of the design proposal created by the design department that all of the departments involved in the product evaluate from their own standpoint and give opinions and request improvements as needed, in order to develop products that satisfy our customers.

ECO PRODUCTS Mark




Trademark
#4631897


The green color symbolizes the protection of the environment, while the mark depicts a new leaf bud formed from the letters 'E' and 'P' (standing for 'eco products').



Resource-Saving Machine: Indicates a machine that saves natural resources by consuming less oil, gas etc. than conventional models.



Low-Noise Machine: Indicates a machine that produces less noise during use than conventional models.



Energy-Saving Machine: Indicates a machine that saves energy by consuming less power than conventional models.

[Activities, Fiscal 2021]

Reducing CO₂ emissions associated with our products

Introducing AMADA ECO PRODUCTS
(added in 2021)

◆ **All-around fiber laser machine**

BREVIS 1212 AJ 



◆ **Ultra-precision fiber laser machine**

PRELAS 1212 AJ 



	Rate of improvement	AMADA Eco Products Eligibility standards (for laser machines)
Energy-saving performance (Rate of electrical consumption reduction)	73.9%	≥ 30%
Productivity (Rate of production cost reduction)	19.7%	≥ 10%

※ Compared to LC-1212a5NT, the company's previous model

	Rate of improvement	AMADA Eco Products Eligibility standards (for laser machines)
Energy-saving performance (Rate of electrical consumption reduction)	85.0%	≥ 30%
Productivity (Rate of production cost reduction)	30.6%	≥ 10%

※ Compared to QUATTRO, the company's previous model

Reducing CO₂ emissions associated with our business activities

• **Toki Works**

■ **Controlling CO₂ emissions by reducing assembling processes**

The Toki Assembly and Production Department of Toki Works is saving energy consumption by reducing parts of the assembling processes, making efforts to reduce the volume of CO₂ emissions. By automating the degassing process of the D-axis module (hydraulic system) used for the HRB bending machine series, the assembling hours were shortened by 75% compared to the former method. Other than this, 72 improvements were made for the assembling processes, aiming for the reduction of CO₂ emission.

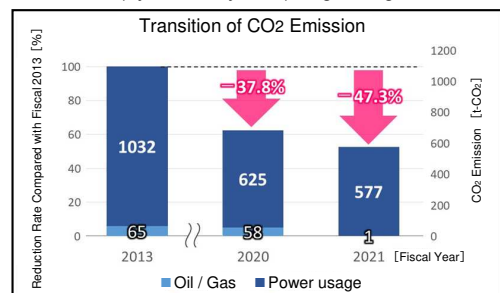


Automation of HRB D-axis module (hydraulic system) degassing

• **Noda Works**

■ **CO₂ emission reduced with "power monitoring tool"**

With the installation of "power monitoring tool", the amount of electricity being used is monitored in real-time. The alarms are set in three levels, which every time the tool's feature predicts that the use of electricity is about to exceed the setting, it notifies the administrator, allowing to take further efforts in energy consumption by controlling the room temperature on the HVAC systems. The impact has been notable, as CO₂ emission was reduced by 47.3% in fiscal 2021 compared to fiscal 2013.



CO₂ emission has been significantly reduced by the use of the "power monitoring tool"

Actualizing a Recycle-based Society



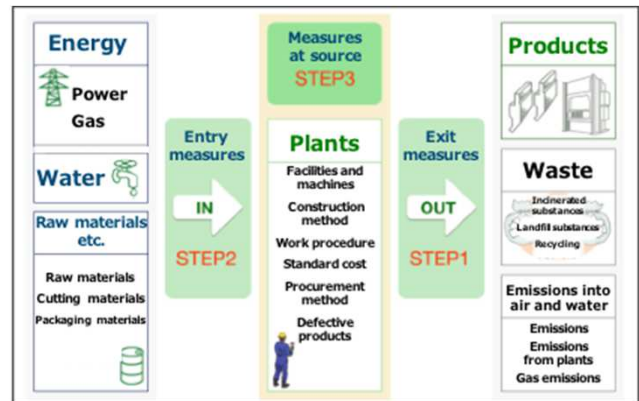
Effective use of resources

The AMADA Group promotes the effective use of limited resources to make contributions to realizing a recycling-oriented society. Regarding domestic production centers, we are promoting activities to actualize zero-emission factories taking the transition to a sustainable society seriously, aiming to make them clean factories.

◆ Zero-emission factories

Five of AMADA Group’s manufacturing bases in Japan have achieved zero-emission factories: Isehara Works (AMADA TOOL), Fujinomiya Works, Toki Works, Noda Works, and Fukushima Plant, Isehara-suzukawa Works. We have stipulated our achievement standard for a zero-emissions at plants to be, “less than 1% (zero-emission rate) of all waste used as landfill for a continuation of at least one year,” through efforts according to three steps of activity.

The AMADA Group achieved a Group-wide zero-emission rate of under 1% (0.81%) for fiscal 2019. It was maintained under 1% (0.54%) in fiscal 2021, and this effort is to be continued.



[Activities, Fiscal 2021]

Effective use of resources

• Fujinomiya Works

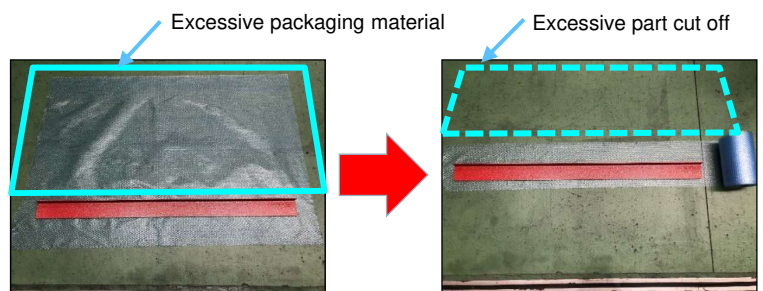
Fujinomiya Works utilizes reusable electronic papers and tablet terminals, reducing the amount of paper being used in the product manufacturing processes, contributing to the reduction of the total volume of waste.



Use of paper reduced by the utilization of tablets in the manufacturing process

• Fukushima Plant

Shipping packing method was standardized throughout the factory, enabling the reduction of the materials. Excessive use of bubble cushion materials was discontinued for small and long items, and in order to avoid disposal of leftover materials, 600mm and 300mm wide bubble cushion materials were newly installed. By this, packing materials are no longer excessive, therefore achieved the reduction of total volume of waste.



Achieved reduction of packaging material purchase and waste disposed by standardizing the shipping packing method



Assessment of Water-Related Risks

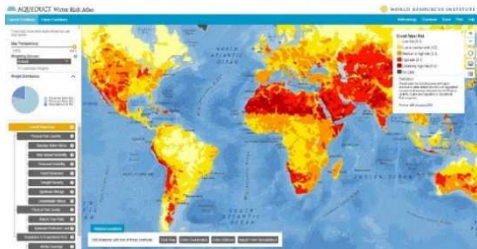
The AMADA Group believes, as the world is facing frequent floods, drought, etc., predicting water-related risks that could connect to direct operational risks is essential to continue our corporate activities. As a specific target, the AMADA Group will reduce the use of water by 10% before fiscal 2030.

◆ Leveraging global tools to assess water-related risks (as of October, 2021)

The AMADA Group owns a total of 21 manufacturing factories within and out of the country. Regions where these plants are located varies, therefore possible water-related risks vary. It is the AMADA Group’s responsibility to analyze the risks regarding water resources that accompanies our corporate activities, and to release the status of how we are responding to these risks.

Just as the previous year, we have confirmed and have understanding on water-related risks of each manufacturing factory, as we have conducted an outlined evaluation of water-related risks with the global evaluation tool “Aqueduct” of the World Resources Institute for all 21 factories^{*1}

^{*1} all 21 factories (of the AMADA Group): All group manufacturing factories dealing with production (9 within Japan, 12 overseas)



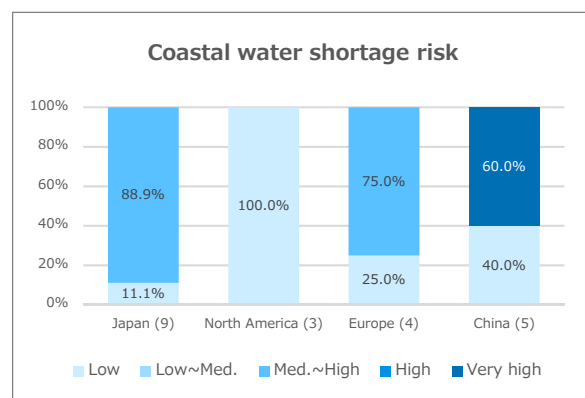
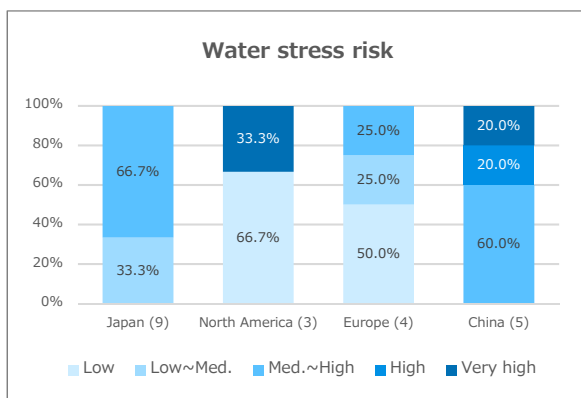
Aqueduct, a water-related risk assessment tool

* We adopt the use of Aqueduct, a tool used by many of the countries responding to the CDP Water Security Questionnaire, due to its ability to offer comprehensive, side-by-side assessment of water-related risks for our production bases, which are scattered throughout the world.

◆ Results of water-related risk assessment

As a result of the general water-related risk assessment, physical risk (quantity) was determined high. Within the category, water stress risk and coastal flooding risk were especially high for North American and Chinese facilities.

Water stress risk, calculated as the level of demand for water considered against the level of available water resources, indicates a region’s degree of water shortage. There are high risk regions where the AMADA Group’s manufacturing facilities are located, and water stress risks are especially high in North America and China. As for the coastal flooding risk, China is determined high.



◆ Action plan

In addition to the schematic surveys to determine the external factors using a global tool, internal surveys were conducted to analyze the factors for water environment risks around Japanese facilities. After surveying the amount of water used in the production processes and impact of water shortage and flooding within the past 10 years, the results of the analysis of external factors and internal factors are reflected in the AMADA Group’s corporate strategy regarding actions for water towards the 2030 target.

Regulated Chemicals Control

Appropriate management and reduction of regulated chemical substances



The AMADA Group has bolstered initiatives regarding regulated chemical substances in order to give our customers peace of mind in using our products. We will implement suitable information management for chemical substances to promote initiatives enabling customers to use safe machinery utilizing safe materials.

◆ Green Procurement

AMADA Group positions “green procurement,” procuring materials with small environmental loads, as one of its important environmental preservation activities for providing environmentally-friendly products to customers.

We request our suppliers for chemical substance analysis and information on materials being used in parts based on the “AMADA Group Green Procurement Guidelines”^{*1} that we established in April 2004.

◆ Chromate Treatments

With regard to surface treatment of in-house design mechanical parts, we have shifted from hexavalent chromium, which has a large environmental burden, to the more environmentally-friendly trivalent chromate.

◆ Oils

All oils marketed by the AMADA Group, including hydraulic fluid, lubricants and cutting oil, are RoHS compliant. Information on their GHS^{*2} physical and health/environmental hazard classifications is stated on the SDS^{*3}.

◆ RoHS^{*4} Compliance

The AMADA Group’s principal products are classified in the Exempted Product Category of LSSIT (large-scale stationary industrial tools) in RoHS directives. Still, in order to give our customers peace of mind in using our equipment, as an initiative of our own we have completed compliance with the standards laid out in Category 11, as published on July 22, 2019, for parts of our equipment with which customers come in direct contact.

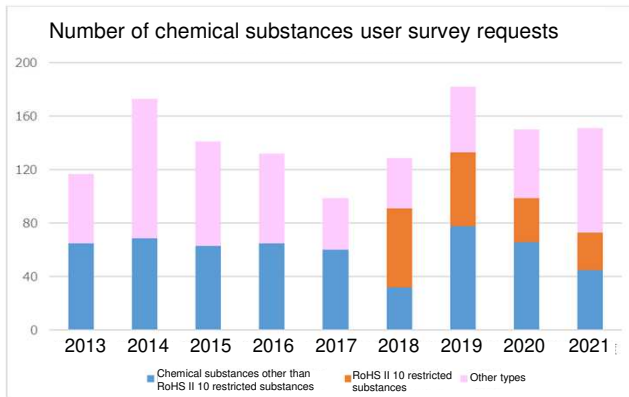
◆ Safety management and control of chemical substance use in the manufacturing process

In addition to products supplied to customers, all of the AMADA Group’s manufacturing plants are working to reduce the amount of regulated chemical substances during the manufacturing process, based on the mid-term environmental plan.

[Activities, Fiscal 2021]

Number of chemical substances user survey requests

The graph below aggregates trends in the number of customer survey requests concerning chemical substance content and other matters.



- Chemical substances other than RoHS 10 restricted substances
The items include a certificate of non-use, composition table, PCB, asbestos, MSDS, etc.
- RoHS 10 restricted substances
Since the list of restricted substances has been expanded to 10 as of July 22, 2019, an increase was seen in inquiries in the previous year of fiscal 2018 concerning 4 appended substances. These are 4 phthalate esters: DEHP, BBP, DBP and DIBP.
- Other types:
Environment surveys, CSR, questions concerning ISO 14001 certification and REACH, etc.

¹ The AMADA Group Green Procurement Guidelines are revised according to amendments in the laws.

² GHS: abbreviation for "Globally Harmonized System of Classification and Labeling of Chemicals"

³ SDS: A Material Safety Data Sheet (SDS) is a document mentioning the hazardous and harmful chemical substances of a product, and is delivered when the product is given or provided to another company.

⁴ RoHS: RoHS II (Directive 2011/65/EU) RoHS directive is an EU law regarding the limited use of specific toxic substances, such as electric and electronic equipment (EEE).

Chemical control within facilities and factories

• Fujinomiya Works

In the frame painting process of punching and combination machines, Fujinomiya Works eliminated the overpainting on the side plate edges, etc., and reduced the amount of paint.

By this, the chemical substances used by the facility were largely reduced.



Discontinued the overpainting in the frame painting process. Other than the reduction of chemical substances, the work efficiency has increased as works at high elevation are also reduced.

Preservation and regeneration for biodiversity

The AMADA Group works to promote “AMADA Forest Creation” efforts contributing to the preservation of biodiversity.

Grasping the nature related risks and opportunities, the Group takes actions on preservation and restoration of biodiversity in an organized fashion.

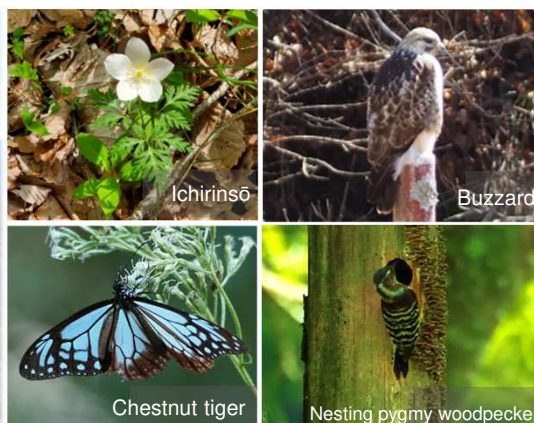
◆ Fujinomiya Works / AMADA's Forest

Approximately 60% of the Fujinomiya Works premises, or roughly 43 hectares is left as forest. About 80% of that is man-made cypress forest.

It has already been 40 to 50 years since reforestation and AMADA is making positive improvements, proceeding systematically in order to transform it into a forest rich in animals and plants.



Forestland at Fujinomiya Works (Fujinomiya, Shizuoka Prefecture)



Creatures confirmed at Fujinomiya Works (in part)

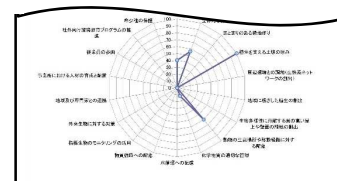
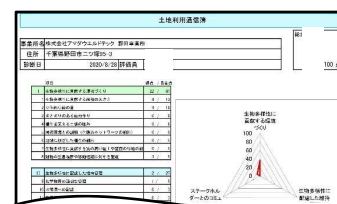
◆ “Quantitative Evaluation of Biodiversity”

AMADA Group’s domestic works strive to make systematic improvements by conducting quantitative evaluations in order to gain a concrete understanding of the progress in their biodiversity initiatives and to clarify such questions as, “What types of positive possibilities there are within the premises?” and “Where are the main factors of environmental load?”

The approach was evaluation using the tools promoted by the Office of the Symbiosis of Living Things from the Japan Business Initiative for Biodiversity.

By improving the score, we aim to promote initiatives in biodiversity.

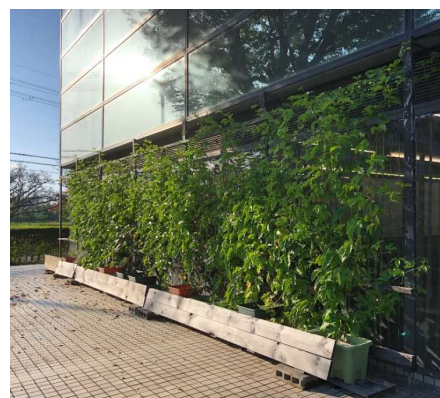
Year of Evaluation	Target of Evaluation
2015	Isehara Works
2016	Ono Plant
2017	Fujinomiya Works
2018	Fukushima Plant
2019	Toki Works
2020	Noda Works



Noda Works biodiversity quantitative evaluation table

Installation of green curtains (Ono Plant / Miki Plant)

At Ono Plant (Ono, Hyōgo Prefecture), a green curtain was installed at the office building, aiming for the factory’s greening and cooling of the building temperature. Also, at Miki Plant (Miki, Hyōgo Prefecture), Sennari Gourds are planted at the wall at the west side of the factory, working on its greening.



Green curtain at the Ono Plant wall

ISO26000 Comparative Table

The below table was created for this report to verify that we are engaging in activities and information disclosure in line with the core subjects of the international standard ISO26000 (guidance on social responsibility), which was published in November 2010.

Core subjects of ISO26000	Subjects	Disclosed information from the AMADA Group	Page number
Environment	<ol style="list-style-type: none"> 1. Prevention of pollution 2. Use of sustainable resources 3. Climate change mitigation and adaptation 4. Environmental protection, biodiversity, and restoration of natural habitats 	<ul style="list-style-type: none"> • AMADA Group Our Management Philosophy / Environmental Principles and Policy / Environmental Declaration • Basic Policy on Sustainability • Reducing CO₂ emissions associated with our products • Reducing CO₂ emissions associated with our business activities • Effective use of resources • Regulated chemicals control • Biodiversity • Assessment of water-related risks • Data 	Refer to: P03 P04 P11 P12 P13 P15 P17 P14 *Separate volume, "Data"

(Reference) Items stated in the Integrated Report

Core subjects of ISO26000	Subjects	Disclosed information from the AMADA Group	Integrated Report page
Organizational governance	Organizational governance	<ul style="list-style-type: none"> • Basic Policy on Sustainability • Top Message • Corporate Governance • Internal control system 	P36 P04-09 P50-55 P56-57
Human rights	<ol style="list-style-type: none"> 1. Due Diligence 2. Crisis regarding human rights 3. Avoidance of complicity 4. Complaint resolution 5. Discrimination and the socially vulnerable 6. Civil and political rights 7. Economic, social, and cultural rights 8. Basic principles and rights at work 	<ul style="list-style-type: none"> • Basic Policy on Sustainability • Cultivation of human resources and develop the workers' abilities • Promoting diversity / Create a rewarding workplace • Internal control system • Basic Policy on Sustainability 	P36 P44-45 P46-47 P56-57 P36
Labor practices	<ol style="list-style-type: none"> 1. Employment and employment relationship 2. Working conditions and social protection 3. Social dialogue 4. Health and safety at work 5. Human resource development and training in the workplace 	<ul style="list-style-type: none"> • Basic Policy on Sustainability • Cultivation of human resources and develop the workers' abilities • Promoting diversity / Create a rewarding workplace 	P36 P44-45 P46-47
Fair operating practices	<ol style="list-style-type: none"> 1. Prevention of corruption 2. Responsible political involvement 3. Fair competition 4. Promotion of social responsibility in the value chain 5. Respect for property rights 	<ul style="list-style-type: none"> • AMADA Group's management philosophy • Basic Policy on Sustainability • Corporate Governance • Internal control system 	P01 P36 P50-55 P56-57
Consumer issues	<ol style="list-style-type: none"> 1. Fair marketing 2. Protection of consumers' health and safety 3. Sustainable consumption 4. Consumer service and support / resolution of complaints and disputes 5. Consumer data protection and privacy 6. Access to essential services 7. Education and raising awareness 	<ul style="list-style-type: none"> • AMADA Group's management philosophy • Basic Policy on Sustainability • Internal control system 	P01 P36 P56-57
Community involvement and development	<ol style="list-style-type: none"> 1. Participation in the community 2. Education and culture 3. Job creation and income creation 4. Technology development and access to technology 5. Creation of wealth and income 6. Health 7. Social investment 	<ul style="list-style-type: none"> • Cultivation of human resources and develop the workers' abilities • Promoting diversity / Create a rewarding workplace • Stakeholder engagement 	P44-45 P46-47 P48-49

Status of Responding to Stakeholders

Stakeholders	Main responsibilities and issues	Main point of contact	Main method of communication
Customers	• Improving the customers' satisfaction	<ul style="list-style-type: none"> • Sales • Services • Quality assurance • Environmental promotion • AMADA SCHOOL 	Contact (HP/each office), sales activities, website, showrooms, events, exhibitions, customer questionnaire, and providing job training with the use of metal fabrication machines (AMADA SCHOOL)
	• Providing safe and high quality products		
	• Highly-rated customer support		
Workers and their families	• Promotion of a safe working environment and healthy management	<ul style="list-style-type: none"> • Human resources • General affairs 	Whistleblowing system, intranet, corporate newsletters, trainings, workers' awareness survey, etc.
	• Respecting human rights / personalities / individualities		
	• Cultivating and utilizing human resources		
	• Fair employment and treatment / respecting diversity		
Government / autonomous body / business entities	• Legal compliance / reporting / notifying	<ul style="list-style-type: none"> • Planning / Management Department • Public relations • General affairs 	Joining municipal committees and their meetings, joining the activities of industrial and/or economic organizations (e.g. joining the member of Japan Machine Tool Builders' Association Environmental Safety Committee), and supporting the Sheet Metal Association
	• Responding to regulations		
	• Activities and cooperation for the growth of the industry		
NGO / NPO / civic groups	• Cooperate to solve social issues	<ul style="list-style-type: none"> • General affairs • Environmental promotion • AMADA SCHOOL 	Volunteering, joining social and environmental dialogues, and providing job training for the use of metal fabrication machines (AMADA SCHOOL)
	• Environmental dialogues		
Business partners and suppliers	• Building a relationship with fair transactions	<ul style="list-style-type: none"> • Materials 	Green Procurement briefings, suppliers' environmental survey, etc.
	• Reducing the environmental load among the supply-chain		
Local society	• Activities for social contribution	<ul style="list-style-type: none"> • General affairs • Public relations 	Activities for social contribution (cooperating with autonomous bodies, volunteering, etc.), sponsoring sports events, research funding, factory tours, and sponsoring cultural events
Shareholders and investors	• Appropriate disclosure of information / pursuit for accountability	<ul style="list-style-type: none"> • IR 	Results briefings (four times a year), general shareholders' meeting (once a year), IR events / meetings with individuals, information disclosure on the website, responding to interviews, briefings for organizational investors and analysts, briefings for independent investors
	• Appropriate profit return		
	• Improving the corporate value		
	• Constructive dialogue with shareholders		
	• Responding to the ESG investment / evaluation		
Others (University, educational research institution, etc.)	• Contribution to research activities	<ul style="list-style-type: none"> • Research and development • AMADA SCHOOL 	Industrial-academic cooperation, research funding, information center, educational programs and events
	• Joint research		
	• Providing educational opportunities		

【Reference】 AMADA Group's Basic Policy on Sustainability

Basic Policy on Sustainability

AMADA Group, based on our management philosophy, environmental principles and policy and the code of conduct, we emphasize having dialogue with all stakeholders including our customers, suppliers, shareholders / investors, employees and local communities, and while proactively taking part in constructing a sustainable society, we will put effort into improving our corporate value.

1. Initiative for addressing environmental problems through our businesses

In every process of our business, AMADA addresses issues including, the reduction of CO₂ emission, the acceleration of reduction and reusing of wastes and protecting the global environment including its biodiversity, by also providing products and services considerate of the environment through our businesses, we contribute into actualizing a society that cares for the people and global environment.

2. Honoring human rights

Without regard to the attribution of each individual's gender and nationality, we emphasize the importance of respecting the human rights of each stakeholder including persons who stand on a socially vulnerable position, and we are promoting this by arranging a workplace where our diverse workers can actively put effort into their work while feel rewarded, as well as an environment where they can work feeling that their safety and health is secure, both mentally and physically.

3. Human resource cultivation

By arranging a personnel system and structure for education and trainings in order for the employees, an essential resource for the management as a source of innovation, to maximize their abilities, we are putting effort into developing workers who pursue creative and challenging activities.

4. Participating and contributing to the local community

In the region where we run our business, we are committed to actively participating in vitalizing the local community and enriching the living environment through our business and other social contribution activities such as our cultural projects.

5. Establishing trust from the society

By strictly complying to legislations and regulations, we will continue to run a honest and fair business that values fair competition, provide high-quality products, appropriate disclosure of products and corporate information, etc., and by strengthening the business foundation, we are committed to a management that will be highly trusted from the society.

【Reference】 The AMADA Group and SDGs

The AMADA Group and SDGs

Sustainable Development Goals (or SDGs) agreed by the United Nations summit, lists 17 goals that will change the world to a better place by 2030.

The AMADA Group's corporate policy is to run a sound business valuing every person who we are connected to, as well the global environment, and to contribute to the international society by developing alongside our customers and employees; we believe the goal we are aiming for is the same as what is meant to be accomplished by the SDGs.

Based on the Basic Policy of Sustainability, the AMADA Group clarified the essential agendas that the AMADA Group must tackle, and efforts that need to be taken in order to solve the issues. With this, we decided eight SDGs that we are going to emphasize, while taking actions for the agendas.

The AMADA Group will play an active role in building a sustainable society through these actions, aiming to achieve the SDGs and improve our corporate value.




Essential agendas of the AMADA Group	SDGs to achieve	Actions taken by the AMADA Group
Environment • Actualizing a carbon neutral society		Reducing CO₂ emission from products at our customers' factory <ul style="list-style-type: none"> • Develop energy-saving machines that can be expected to reduce CO₂ emission • Develop an energy-saving technology • Expand the product ratio of AMADA ECO PRODUCTS and improve their sales ratio Reducing CO₂ emissions from all works and plants <ul style="list-style-type: none"> • Install energy-saving equipment and promote the utilization of natural energy (LED lightings / solar power generation system, etc.) • Reduce work processes and improve facility operation to reduce energy consumption (Revising materials / methods / processes, and reducing standby power) • Contributing to CO₂ neutrality through forest preservation • Monitor the absorption balance from the environmental preservation status
Society • Create a rewarding workplace • Promoting diversity • Cultivation of human resources and develop the workers' abilities		<ul style="list-style-type: none"> • Promoting a personnel system and projects for employees that is rewarding • Woman's career support • Develop employees who will lead the next generation
Governance • Strengthen the business foundation • Comply to laws and legislations • Continue with the business and projects		<ul style="list-style-type: none"> • Reinforcing the corporate governance system which will be further trusted by the society • Arrange a structure or system that ensures compliance to laws and legislations • Strengthening the structure that enables the company to continue business under the occurrence of expected risks

Table of SDGs considerate actions in this report

Content	Page	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
AMADA Group's management philosophy	P03																	
AMADA Group Our Environmental Principles and Policy / Environmental Declaration	P04																	
Information Disclosure Related to Climate Change, Based on the TCFD Recommendations	P06-08													●				
Mid-term environmental plan	P09-10																	
Actualizing a carbon neutral society (reduction of CO ₂ emissions from products)	P11							●		●				●				
Actualizing a carbon neutral society (reduction of CO ₂ emissions from business activities)	P12							●		●				●				
Actualizing a recycle-based society (effective utilization of resources)	P13											●	●					
Assessment of water-related risks	P14							●				●	●					
Regulated chemicals control	P15			●								●	●					
Biodiversity	P17															●		

Environment Report (March, 2022)
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