



Policies and Systems

Management policy

Mizuno Environmental Policy

To create a sustainable community and environment for the future, where all of us around the world can play sports safely and vigorously, the Mizuno Group will actively help preserve the global environment through all of its business activities and actions of each and every one of its employees.

1. Prevention of environmental pollution

We will reduce the impacts of chemicals on people, the environment and the ecosystem.

We will endeavor to reduce and recycle waste.

2. Sustainable use of resources

We will endeavor to make effective use of limited resources.

3. Mitigation of climate change

We will endeavor to reduce greenhouse gas emissions.

4. Coexistence with society

We will endeavor to develop and offer products and services that take the environment into consideration.

We will broaden communications with local communities.

We will endeavor to preserve biodiversity.

To ensure realization of the above policies, we will set specific environmental objectives and targets so that systematic efforts can be made to achieve the targets.

1 July, 2021

Akito Mizuno

President

Mizuno Corporation

Management system

To promote environmental protection activities as a Group, Mizuno has established an environment management system, led by its operating officer.

[For more information on Mizuno's management system, please refer to Mizuno's Environmental Management System.](#)



Environmental Management System

Basic Concepts

Mizuno started the unique environmental conservation activities "Crew21 Project" ahead of the rest of the industry in 1991 when global environmental issues began to attract attention. This project was named with the idea of "taking on the role of a crew member of the [Spaceship Earth] and carrying out activities to conserve resources and preserve the environment." Since the project's inception, Mizuno has been continuing efforts for over 30 years to make effective use of resources, reduce greenhouse gas emissions, and adopt environmentally friendly materials and manufacturing processes in their product planning.

In recent years, as the impact of climate change is increasingly felt, the company's group set a goal in 2021 to achieve carbon neutrality in corporate activities by 2050, making greenhouse gas emissions virtually zero. Towards the realization of carbon neutrality, they will further strengthen efforts such as innovations in manufacturing processes and the use of renewable energy. Alongside this, they will continue to promote recycling and the reduction of waste, and the efficient use of water, in line with their ongoing commitment to environmental considerations.

System for promoting environmental protection activities

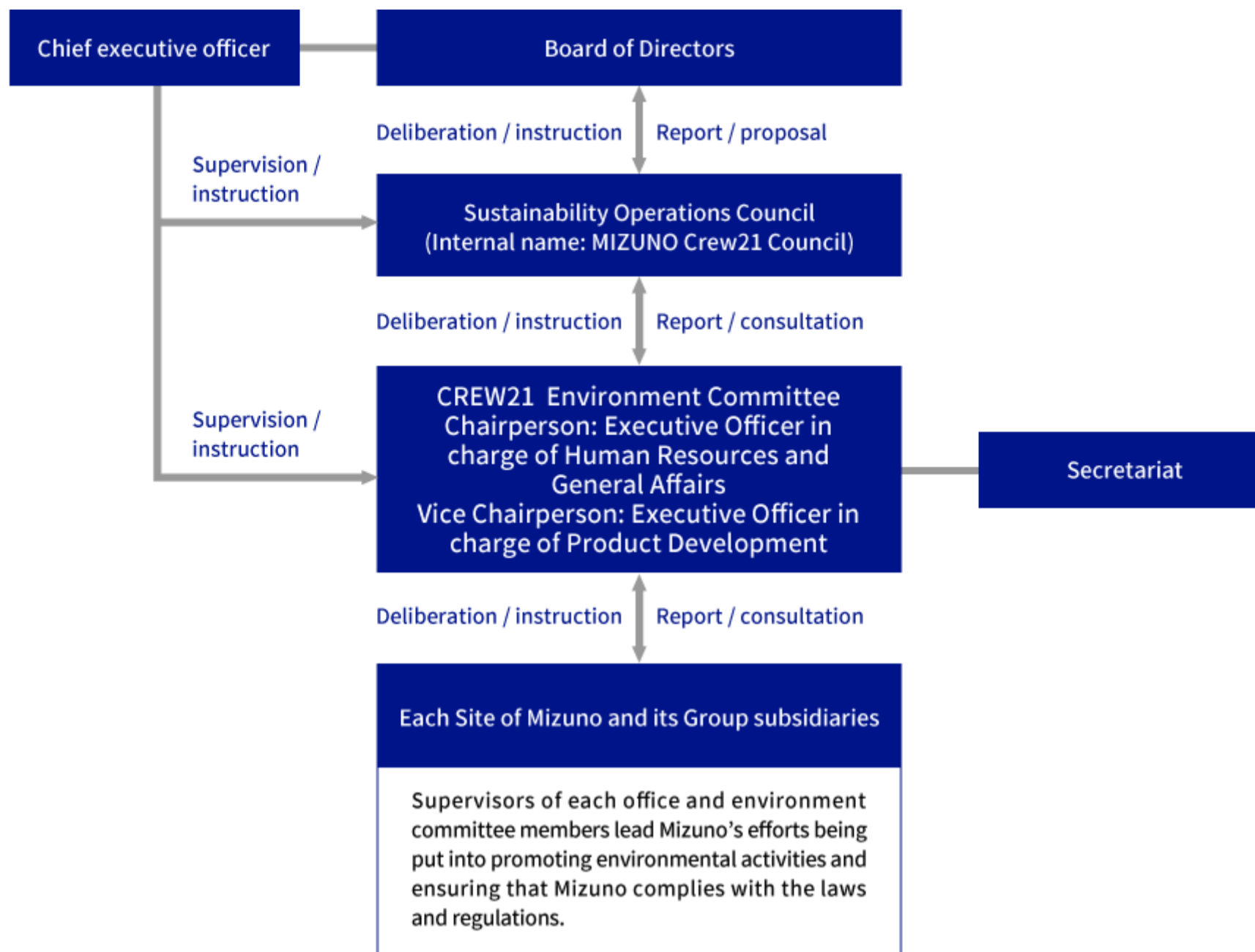
To promote environmental protection activities across the Group, Mizuno has established an environment management system, led by its executive officer.

Mizuno has formed a Crew21 Environment Committee to promote environmental management activities, which is comprised of supervisors of relevant departments. The committee is led by the Executive Officer in charge of Human Resources and General Affairs, serving as the chairman, and the Executive Officer in charge of Product Development, acting as the vice-chairman.

The Committee discusses matters such as: 1) formulating an environmental policy and revising it, 2) setting short-term, medium-term, and long-term environmental goals, and 3) instituting measures for achieving environmental goals. The Crew21 Environment Committee meets regularly, fostering communication across the entire company as it advances environmental protection activities.

[For information on the roles served by each organization, please refer to Management and Sustainability.](#)

Environment Operations Structure



The History of Mizuno's global environment protection activities

Mizuno recognizes that all business activities have the potential of adversely affecting the environment. Accordingly, to help protect the global environment, in September 1991, Mizuno established a global environment protection activity project titled "Crew21," and ever since then, it has been putting effort into conducting environmental protection activities. In celebration of the 30th anniversary since initiating the Crew21 project, in April 2021, Mizuno created the logo "MIZUNO CREW21," which symbolizes all of Mizuno's sustainability activities, including not only its environmental protection activities but also social and economic activities. Mizuno will continue putting effort into helping create a sustainable world as a crew member of the Spaceship Earth.

[History of Mizuno's activities for the conservation of the global environment \(timeline\)](#) 

ISO 14001 certification

The Mizuno Yoro Factory (now Mizuno Technics Corporation), which is Mizuno's main factory in Japan, obtained ISO 14001 certification in 1997 before other companies in the sports industry, following which other offices in Japan also obtained certification. Subsequently, Shanghai Mizuno, which is Mizuno's largest manufacturing base overseas, obtained certification in 2004, followed by Taiwan Mizuno in 2008. In addition, Senoh Corporation and Senotech Corporation, which are part of the Mizuno Group, obtained certification in 2015.

List of offices that have obtained ISO 14001 certification

Year of acquisition	Offices that have obtained certification and the scope of application* (as of March 2022)
1997	Mizuno Technics Corporation Yoro Factory of Mizuno's Head Office, Haga Factory, Yamazaki RunBird Factory, and Hikami Factory
2002	Mizuno Corporation Osaka Head Office, Tokyo Head Office, Chubu Branch, Kyushu Branch, Yodoyabashi Store, and MIZUNO TOKYO
2004	Shanghai Mizuno Corporation Ltd.
2008	Taiwan Mizuno Corporation
2015	Senoh Corporation Matsudo Head Office and Fukuoka Branch Senohtech Corporation
2020	Osaka Chayamachi Store

* The scope of application of ISO 14001 primarily covers offices with a greater risk of causing environmental harm.

As of the end of March 2023, ISO 14001-certified offices account for 90.5% of offices in Japan and 36.9% of offices overseas (on the basis of the number of employees).

Environmental audit

The Mizuno Group conducts an internal audit and has the ISO 14001 certification body examine itself annually. According to the examination conducted by the certification body in FY 2022, Mizuno had no major issues. In addition, Mizuno has already completed resolving all minor issues.

	Issues pointed out by Mizuno's internal audit (No. of issues)	Issues pointed out by the certification body's examination (No. of issues)
Major issues	0	0
Minor issues	27	3
Opportunities to resolve issues	0	5

By "Opportunities to resolve issues," Mizuno means the number of times it received advice on how it could resolve its issues, and every time it had such opportunities, Mizuno carefully examined the advice it received and applied it to resolving issues as necessary.

Complying with environmental laws and regulations

To comply with environmental laws and regulations, Mizuno maximizes its environment management system and identifies environmental risks that could be underlying its business. Whenever a risk is identified, to prevent accidents and minimize danger, Mizuno regularly performs maintenance and inspection of equipment and facilities and also conducts emergency response drills.

In FY 2022, Mizuno was not found as violating any environmental laws and regulations, did not experience any major accidents, and was not charged any penalties.

Preventive approaches and precautionary principles

Mizuno strives to prevent environmental impact and reduce the environmental burden at every stage of the process, from planning and development to manufacturing.

In FY 2018, Mizuno conducted an analysis using a life-cycle assessment (LCA) for WAVE RIDER 21, a representative model of running shoes in its footwear business, identifying the processes and environmental aspects that have significant impacts within the product's lifecycle. In FY 2021, Mizuno carried out LCA analyses on representative products by category, estimated their respective greenhouse gas emissions, and is utilizing these findings in future measures.

Environmental education

The Mizuno Group provides its entire staff with environmental education to help each and every one of them improve their environmental attitude. The Mizuno Group's environmental education being provided at each of its departments deals with a large number of topics every year and aims to help employees familiarize themselves with Mizuno's philosophy and goals relating to its environmental protection activities.

In addition, the site of each department provides waste managers and organic solvent users with information on specialized education helpful in improving the skills and knowledge needed at work.

Disclosure of Environmental Information

Mizuno discloses environmental information on its website. The sustainability report, which includes environmental information, is available in both Japanese and English. The information disclosed on the website can be downloaded as a PDF.

Factory Tours

Mizuno conducts factory tours at production bases such as the Yoro Factory and Senotech, where visitors can observe the know-how of manufacturing and the in-factory 3S (Sort, Set in order, Shine) conditions. In addition, in response to World Environment Day on June 5th, Mizuno has designated June as Mizuno Environment Month and has been carrying out cleanup activities around its domestic and overseas business sites since 1997. In FY 2022, as measures against the Covid-19 have gradually eased, activities such as factory tours have resumed. In September 2022, Mizuno's Yoro Factory was visited as part of the Overseas Market Workshops (OMWs) Japan Tour sponsored by the Singapore Enterprise Agency, with participation from approximately 30 members from the Singapore Chamber of Commerce and Industries. On the day of the visit, in addition to the factory tour, the company explained its corporate activities and sustainability efforts based on the Mizuno Corporate philosophy.

Risk Communication

Mizuno Technics is engaged in risk communication through regular dialogue with stakeholders. This effort involves inviting local government officials and residents to actually tour the factory and explaining how the factory operates using various equipment, what products and waste are created, and what environmental conservation activities are being conducted. It's a proactive initiative where information is openly shared with community representatives, and their opinions and requests are actively solicited and incorporated into ongoing activities.

Environmental Workshop

Mizuno conducts environmental workshops with the aim of nurturing children's environmental awareness through its manufacturing and environmental conservation activities. In the workshops, the history of sports equipment and Mizuno's initiatives at the factory are introduced, and participants engage in crafting original keyholders using wooden bat offcuts and leftover leather from baseball gloves.

Moreover, starting from FY 2020, the workshop has been expanded as part of the experiential program "Kotopro," as an event program.

Solar panels installed at Mizuno Technics Yoro Factory

The Mizuno Technics Yoro Factory manufactures baseball and golf products, which are Mizuno's core products and other sporting goods. We installed solar panels on the roof of the factory's largest building, the golf manufacturing building, in January 2023. This will generate approximately 400,000 kw of electricity per year, which will be used in the manufacturing processes of golf and other products.

We also installed emergency power supply equipment along with the solar panels to ensure a stable power supply even in the event of a natural disaster. This emergency equipment not only serves the factory, but is also aimed at benefiting the local community by supplying power to neighboring areas in the event of an emergency.





Mitigation of Environmental Impact in Products

Basic Concepts

Toward the achievement of its medium- to long-term environmental targets, Mizuno conducts life cycle assessment (LCA) for representative products in each product division. They analyze and understand the environmental burden throughout the entire life cycle of the products, from the procurement of raw materials to disposal, and promote the mitigation of the environmental burden across the entire life cycle. On procuring raw materials, Mizuno selects recycled materials and plant-based materials. It is also committed to extending the lifetime of its products by increasing their durability and providing high-quality maintenance and repair services.

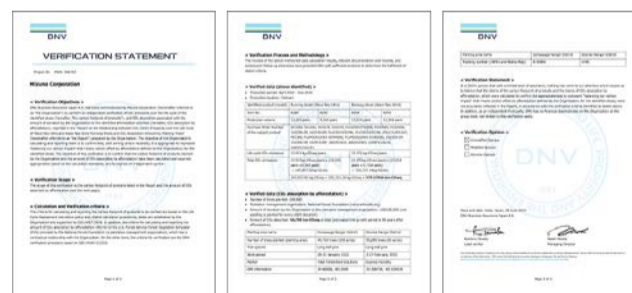
Understanding the Environmental Impact Throughout the Product Lifecycle

In September 2022, Mizuno launched the Wave Neo Collection, the company's first running shoes designed to offset CO₂ emissions throughout the product's lifecycle (from raw material procurement to manufacturing, transportation, sales, use, and disposal). The Wave Neo Collection maintains the performance features of traditional running shoes suitable for full marathons while aiming to reduce environmental impact. These shoes reduce CO₂ emissions by using environmentally friendly materials such as recycled polyester and plant-derived materials as raw materials, and by using non-dyed upper knit materials to conserve water resources and reduce environmental impact. Furthermore, in collaboration with the National Forest Foundation in the United States, Mizuno planted approximately 100,000 long pine trees in Chattahoochee, Georgia, between January and February 2022. The purpose of this afforestation project is to absorb the CO₂ emitted during the life cycle of these shoes. These trees will continue to absorb atmospheric CO₂ for nearly 90 years. As a result, the CO₂ emissions from the global sales of the Wave Neo Collection in this fiscal year will be offset by the absorption through tree planting. This initiative marks the first time in Mizuno's history that a product has been developed to offset CO₂ emissions.

Mizuno has disclosed information for balancing the carbon impact. And it has been verified by a third-party organization, DNV Business Assurance Japan K.K.

[Mizuno's disclosure for balancing carbon impact](#)

[Third-party verification for balancing carbon impact](#)



For further information,

visit, <https://corp.mizuno.com/en/sustainability/environment/waveneocollection>

Use of Raw Materials and Recycling

At Mizuno, due to the wide variety of products, it is difficult to list all the types of raw materials used in manufacturing. Therefore, we report on the main raw materials used in our major products, such as shoes and apparel. These materials include plant-derived and recycled materials.

Shoes: We utilize recycled polyester for the upper part, plant-derived materials (Pebax® Rnew® / Rilsan®) for the WAVE PLATE, non-dyed upper knit materials, and algae-based materials called "BLOOM" for the midsole and insole, among others.

Apparel: We use materials recycled from PET bottles, plant-derived synthetic fibers, biodegradable synthetic fibers, and materials reused from rice husks, among others.

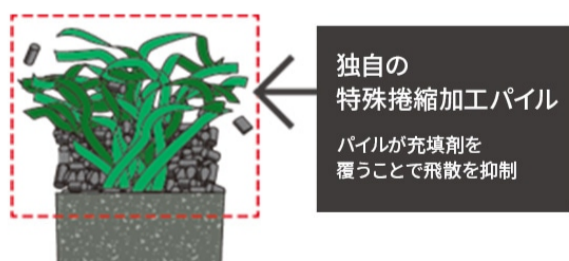
On the other hand, we are also advancing efforts in recycling, reusing, and regenerating raw materials, products, and packaging materials. For example, we have started using materials regenerated from discarded plastic films and used PET bottle caps for the packaging of some domestically produced sports apparel. We will gradually transition to this recycled material starting from June 2022, and within a year, we plan to switch the packaging for about 1.04 million apparel products to this recycled material. As approximately 98% of the material per package will be regenerated, we anticipate a reduction of 29.6 tons in CO₂ emissions annually.

Mitigating the Outflow of Microplastics from Artificial Turf

Mizuno engages in the development and sale of products related to artificial turf to provide a comfortable sports environment and is committed to environmental conservation through its business. In recent years, one of the issues raised is that microplastics originating from artificial turf become marine debris.

●Artificial Turf "MS CRAFT"

that Reduces Rubber Chip Scattering Mizuno has developed artificial turf named "MS CRAFT" that utilizes specially curled processed piles (blades of grass), resulting in less scattering of rubber chips and a reduced likelihood of outflow. This contributes to the control of microplastics leakage. MS CRAFT employs these special curled processed piles. Compared to conventional straight long-pile artificial turf, by optimizing the amount of curled processed piles, it suppresses the dispersion of infill materials during rainfall, ball bouncing, and other such events. This technology was demonstrated in the fiscal year of Reiwa 4 under the Environmental Technology Verification (ETV) Program by the Ministry of the Environment of Japan, within the realms of climate change mitigation technology as well as water and soil environmental preservation technology.



●Eco line paint for artificial turf ground

Mizuno has developed "ECOMELT-LINE," a water-soluble line paint for artificial turf grounds, responding to the demand to "draw lines freely on artificial turf grounds and cleanly erase them after an event."

While general paints often use resin (plastic) to enhance durability and adhesion, ECOMELT-LINE does not use resin, and even when rinsed with water, it does not become a source of microplastic discharge. Additionally, ECOMELT-LINE is a neutral paint (pH 7.5) made without volatile organic compounds or similar materials, making it friendly to both people and the environment. There's no need for special chemicals to remove the lines, and they can be easily cleared from artificial turf, allowing for repeated and worry-free use.



White lines (image) created by "ECOMELT-LINE"

Developing artificial turf fillers by recycling used tea leaves

Mizuno collaborated with Ito En Ltd. (hereinafter, Ito En) in developing an artificial turf filler named "Field Chip G (Greentea)," and it did so by using Ito En's used tea leaf recycling system.*1

Producing enough Field Chip G to cover an entire long pile artificial turf soccer field requires using used tea leaves worth 430,000 pet bottles of Ito En's 525 ml sized Oi Ocha green tea. Used tea leaves contain carbon dioxide absorbed by their trees. Therefore, covering an entire soccer field with Field Chip G made from used tea leaves would enable reducing about 4.3 t-CO₂ of carbon dioxide in the atmosphere.*2 In addition, Field Chip G does not smell like rubber and allows reducing the increase of surface temperature by about 7°C compared to that of black rubber chip fillers.

Field Chip G is currently used in the following places, helping protect the environment and making artificial turfs more comfortable: 1) the Play Ground of Mizuno's after-school care facility "Asolete AFTER SCHOOL" (in Tokyo), 2) a part of the Tokiwabashi area currently under development (in Tokyo), 3) Kashihara Athletic Park (in Nara Prefecture), and 4) the soccer field at Teikyo Nagaoka High School (in Niigata Prefecture).

*1 [Used tea leaf recycling system](#)

*2 The carbon content was measured using Yanaco Technical Science Corporation's Yanaco HCN Coder MT-700 HCN.



Corporate uniforms

Mizuno currently helps workers in various industries, including the construction, manufacturing, and transportation industries, work comfortably by applying the functionality that it has acquired in the sports industry to offering corporate uniforms. Companies have recently come to recognize the importance of valuing their employees' health from the perspective of company management and have begun paying more attention to the need for strategic health management. Accordingly, more companies now place importance on the safety and comfort of the uniforms that they ask their employees to wear. In addition, to help companies become more environmentally friendly, Mizuno uses environmentally friendly materials, such as recycled polyester and plant-derived polyester, and it also recycles used uniforms. Recycled uniforms are recycled as industrial materials, such as car interior material and polyester fiber.

Initiatives to effectively utilize the offcuts produced in the manufacturing process

● Reusing offcuts from wooden baseball bats

One of Mizuno's main products is wooden baseball bats. Since wood is a natural material, it may have knots or other imperfections, leading to the creation of offcuts that are unsuitable for use as bats during the manufacturing process. To make effective use of these offcuts, Mizuno leverages its connections with partner companies to process them into various items such as wooden key holders, transforming them into new products.



For further information,

visit, <https://corp.mizuno.com/en/articles/0051>

●Reusing leftover leather from baseball gloves

Baseball gloves are one of Mizuno's main products. One issue has been that a large amount of leather material is left unused for making baseball gloves, due to wrinkles or scratches, making it unsuitable for use. Therefore, Mizuno continuously recycles this leftover leather, transforming it into small items such as wallets and business card holders for sale.



For further information,

visit, <https://corp.mizuno.com/en/articles/0052>

Research into the development of environmentally friendly raw material

Mizuno conducts research into the development of nonpetroleum-derived raw materials as a substitute for petroleum-derived raw materials. Mizuno currently puts effort into conducting research into the development of plant-derived raw materials, and it sees nanomaterials, such as cellulose nanofibers, as being promising candidates.

Future issues to be addressed

Of the entire amount of GHG emissions that Mizuno's business activities currently generate, indirect emissions that fall into the category of Scope 3 account for about 97%. Particularly, because about 80% of those indirect emissions are related to purchased products and services, Mizuno recognizes the importance of reducing greenhouse gas emissions through their products. We will continue to promote product planning and development aimed at reducing GHG emissions.



Materiality

Climate Change

Basic Concepts

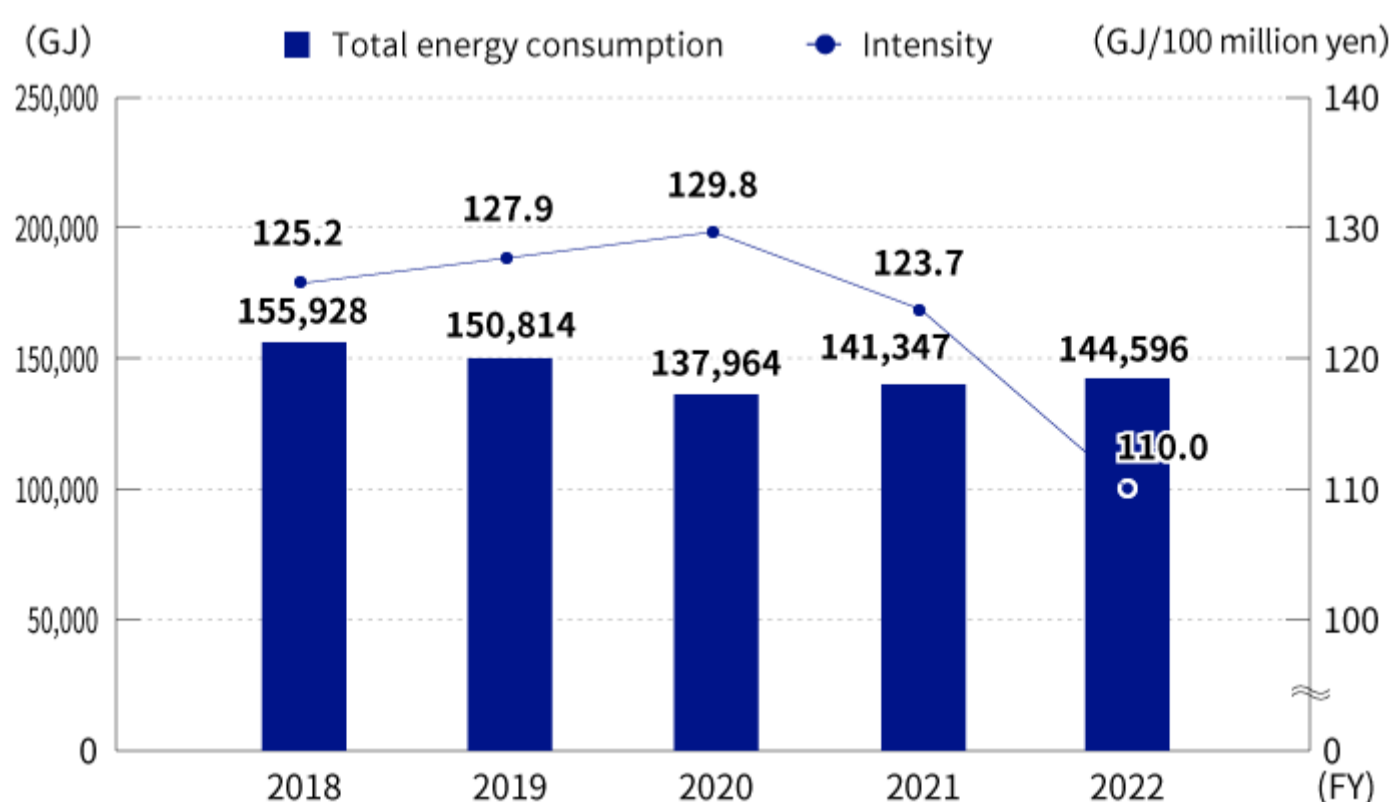
To help create a decarbonized world, the Mizuno Group will put effort into reducing energy consumption and energy-derived CO₂ emissions. In addition, since it believes that reducing GHG emissions effectively requires doing so in collaboration with its entire value chain, Mizuno will put effort into reducing GHG emissions generated when developing products.

Energy consumption

Mizuno currently makes various efforts with the aim of achieving its long-term environmental targets. Key examples include solar power generation at domestic factories and the installation of LED equipment at its offices in Japan and overseas. To reduce its energy consumption, Mizuno currently puts effort into strategically installing LED equipment at offices that have a higher risk of imposing environmental burden, such as its headquarters' buildings and factories. In addition, Mizuno currently puts effort into switching its company cars from gasoline cars to hybrid and other fuel-efficient cars. Furthermore, electric cars have also been introduced and been proving to be safe and environment friendly. Mizuno's company cars are equipped with Telematics, which allows visualizing how cars are being driven. This has proven to be useful in not only helping drivers pay more attention to driving safely but also improving fuel economy and reducing CO₂ emissions.

Mizuno's total domestic energy consumption in FY 2022 was 144,596 GJ. The intensity of energy consumption* was 110.0, a decrease of 13 points year on year.

Total energy consumption [*b]

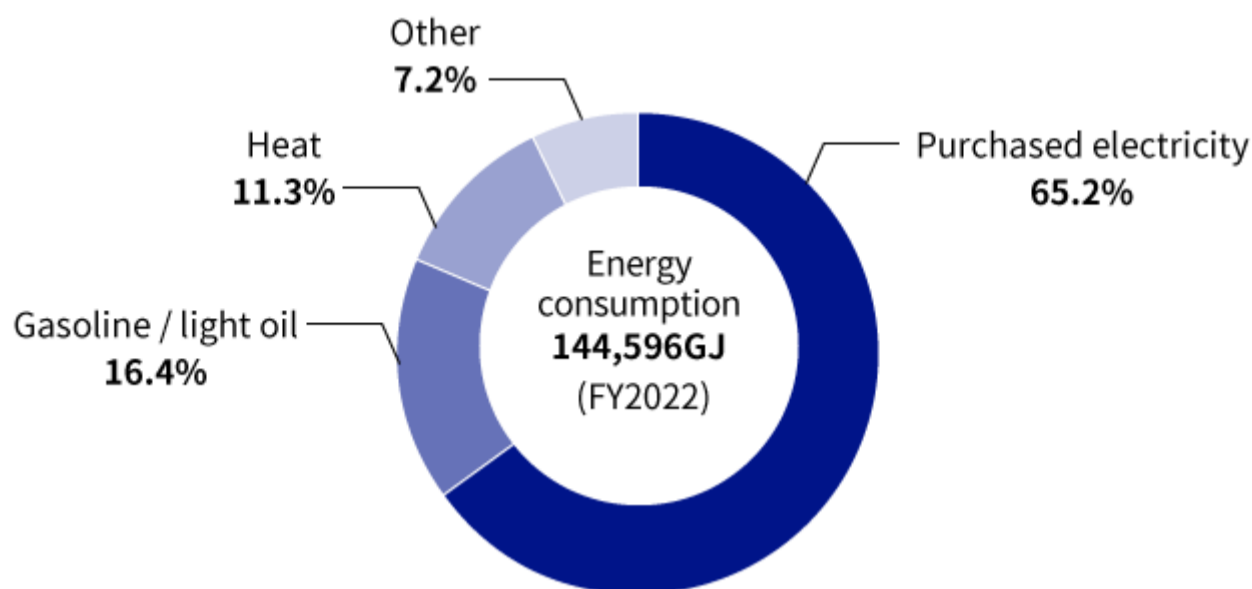


* The breakdown of energy consumption includes non-renewable fuel sources, electricity, heating, cooling, and steam. At this point, fuel sources from renewable energy, such as biofuels, have not been identified.

* Energy consumption does not include external energy consumption within the organization.

* Intensity of energy consumption: Domestic energy consumption (GJ) / Total domestic sales revenue (hundred million yen)

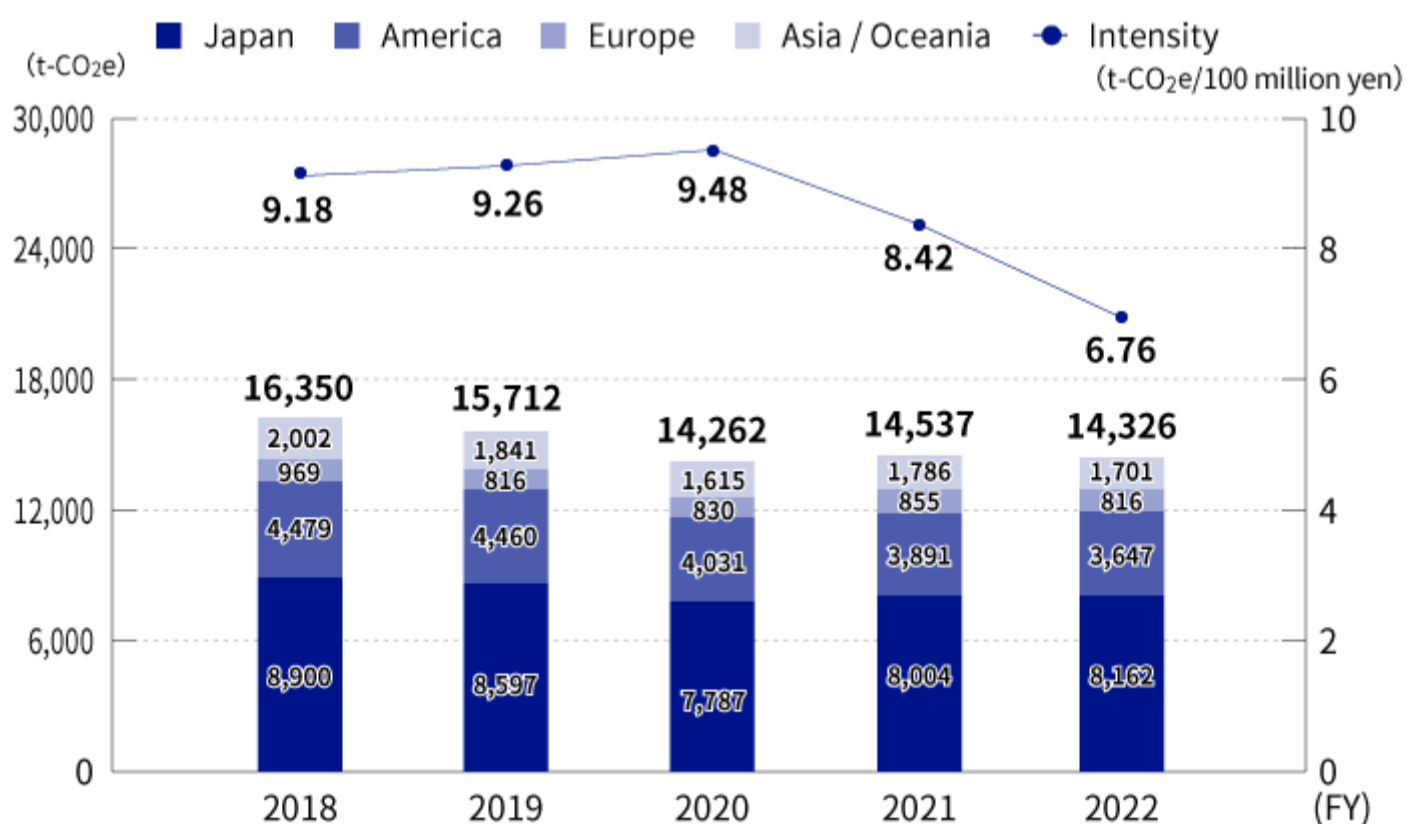
Breakdown of energy consumption [*b]



Energy-derived CO₂ emissions

In FY 2022, the Mizuno Group set a goal for its total energy-derived CO₂ emissions of 14,111 t-CO₂ (a 2.9% reduction compared to the previous fiscal year), but the actual result was 14,326 t-CO₂. The increase in electricity and gasoline consumption, influenced by the relaxation of restrictions and the resumption of activities following COVID-19 both in Japan and overseas, affected the results for the fiscal year. Going forward, Mizuno aims to reduce its CO₂ emissions through the introduction of energy-saving equipment and the promotion of efficient operations. Additionally, the occurrence of CO₂ emissions from biological sources, such as the combustion of biomass, has not been identified.

Regional GHG emissions and intensity*2



*2 Intensity: GHG emissions (t-CO₂e) / consolidated sales (100 million yen)

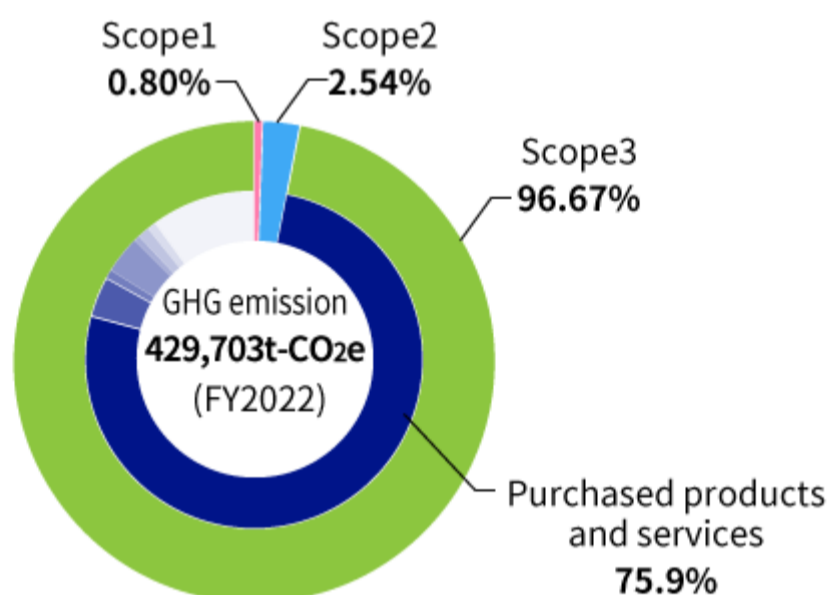
Other indirect greenhouse gas emissions

Mizuno recognizes that to achieve a decarbonized society, it is essential not only to reduce greenhouse gas emissions generated by the company itself but also to engage in initiatives across the entire value chain. Therefore, Mizuno calculates emissions across the entire value chain based on the Scope 3 standards of the GHG protocol.

In FY 2022, Mizuno's Scope 3 CO₂ emissions accounted for 96.67% of its total CO₂ emissions. To reduce the amount of Scope 3 CO₂ emissions, Mizuno is making efforts such as collaborating with Sumitomo Warehouse, which operates Mizuno's main warehouses, to promote the installation of LED lighting, and partially advancing a modal shift in transportation between its major warehouses in Western and Eastern Japan.

Among Scope 3, Category 1 "Purchased products and services" and Category 12 "End-of-life treatment of sold products," which together account for about 80%, were recalculated in FY 2021 using an LCA-based method, revising the traditional calculation approach. To reduce emissions in Category 1, Mizuno will continue to promote the use of environmentally friendly materials such as recycled and plant-based materials, while also considering additional measures for further reductions.

Other indirect greenhouse gas emissions generated in FY 2022 [*a]



Scope	Category	Category name	CO ₂ emissions (t-CO ₂ e)	Breakdown ratio
Scope1		Mizuno's direct emissions	3,420	0.80%
Scope2		Mizuno's indirect emissions	10,907	2.54%
Scope3		Others' indirect emissions	415,377	96.67%
Breakdown	Category 1	Purchased products and services	326,338	75.9%
	Category 2	Capital goods	16,896	3.9%
	Category 3	Fuel- and energy-related activities	3,663	0.9%
	Category 4	Upstream transportation and distribution	15,286	3.6%
	Category 5	Waste generated in operations	364	0.1%
	Category 6	Business travel	2,533	0.6%
	Category 7	Employee commuting	4,161	1.0%
	Category 8	Upstream leased assets	3,885	0.9%
	Category 9	Downstream transportation and distribution	137	0.0%
	Category 12	End-of-life treatment of sold products	42,114	9.8%
Total			429,703	

* Calculations of purchased electricity emissions are location based.

* The calculation scope is the domestic Mizuno Group and overseas Mizuno Group.

* Scope 1: Greenhouse gas (GHG) emissions from a company's direct operations, such as the in-house use of fuel

* Scope 2: A company's indirect GHG emissions from purchased electricity, heat, and steam

* Scope 3: A company's indirect GHG emissions coming from product manufacturing, transportation, employees' business travel and commuting within the supply chain

* For Scopes 1 and 2, emissions are from energy sources.

* For Scope 3, non-energy source greenhouse gases are partly included according to the guidelines from the Ministry of the Environment.

* The data marked with check mark has been assured by a third party in Japanese version of report.

* Scope1, 2

Direct and indirect GHG emissions from corporate activities as defined by the GHG Protocol

* Scope3 / Category 1

The following three methods are used to calculate emission factors according to the characteristics of product categories.

LCA of the representative model of the product sold by Mizuno in the relevant fiscal year was carried out and the emission factor of the product was calculated. GHG emissions were calculated by multiplying the sales volume with the emission factor. - ①

In the manufacturing department, GHG emissions were calculated by multiplying the amount of substances used in manufacturing with the emission factor. - ②

GHG emissions were calculated by multiplying the cost of products sold by Mizuno in the relevant fiscal year with the emission factor specified by the Ministry of the Environment. - ③

Total GHG emissions = ① + ② + ③

* For LCA calculation, the emission factor of LCI database IDEA version3.3 and Database on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain.

* Scope3/ Category 12

The following three methods are used for calculation according to the characteristics of product categories.

LCA of the representative model of the product sold by Mizuno in the relevant fiscal year was carried out and the emission factor of the product for disposal specified by the Ministry of the Environment was calculated. GHG emissions were calculated by multiplying the sales volume with the emission factor. - ①

In the manufacturing department, GHG emissions were calculated by multiplying the amount of substances used in manufacturing with the emission factor for disposal. - ②

GHG emissions estimated from sales amount based on the GHG emissions calculated from ①. - ③

Total GHG emissions = ① + ② + ③

* For LCA calculation, the emission factor of LCI database IDEA version 3.3 and Database on Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc., by Organizations Throughout the Supply Chain.

【Third Party Assurance】

In order to ensure a higher level of transparency and reliability while disclosing information on environmental data, Mizuno has obtained third-party assurance for the Japanese version of environmental data for FY2022 with this report from SGS Japan Inc

【Scope of Assurance】

GHG emissions in FY2022 (Scope 3, Category 1, 12)

Other Emissions to the Atmosphere

There are no relevant emissions of ozone-depleting substances (ODS), nitrogen oxides (NOx), sulfur oxides (SOx), and other significant atmospheric emissions, so reporting on these is not being conducted.

Future issues to be addressed

- Mizuno will strive to not only reduce Scopes 1 and 2 GHG emissions but also aim for initiatives to cut down Scope 3 emissions, and continue to strengthen these activities moving forward.
- Mizuno will promote measures designed to switch to renewable energy sources.
- Mizuno will promote efforts throughout the supply chain to reduce Scope 3 emissions.
- Mizuno will work to create a circular economy.



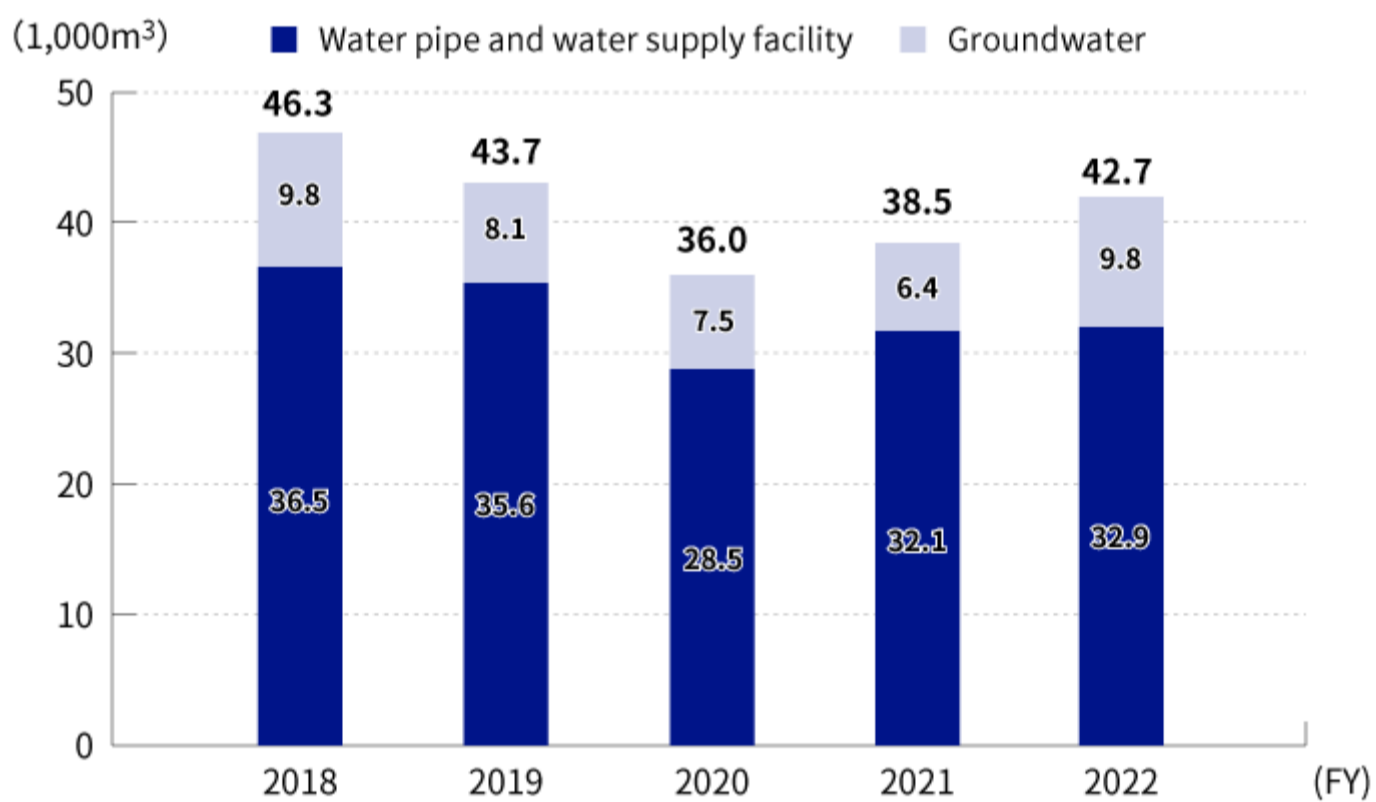
Water Use and Management

Basic Concepts

Water resources are not only essential to conducting business but also essential to everyday life and the production of food of the regional community and the maintenance of biodiversity. In the manufacturing of sports equipment, the production of raw materials and the manufacturing process of products have a great impact on water resources. Mizuno puts effort into reducing the amount of water use, including the developing of manufacturing technologies that will allow the reduction of water use.

To play its part in the circulation of water resources responsibly, Mizuno will pay even greater attention to the effluent its manufacturing bases discharge into the sewage and general rivers and also ensure that it complies with laws relating to septic tanks and water quality management.

Water intake by water source [*b]



Water-resource measures taken in supply chains

Since supply chains are expanding globally, water pollution in manufacturing countries is an important issue that needs to be addressed. Mizuno uses the World Resources Institute (WRI)'s Aqueduct, which provides a world atlas that maps data on water risks, to identify current and potential water risks at its offices and factories around the world. A water risk survey has been completed at all 37 Mizuno offices: 18 in Japan (including subsidiary offices) and 19 abroad.

In addition, as part of its CSR procurement audit, Mizuno checks whether its suppliers are properly managing effluent and whether employees have safe access to water.

Future issues to be addressed

- Mizuno will seek to fully grasp the facts of its water use from multiple perspectives, including the current levels of its global water usage and water-related impacts, as well as future water-related impacts on its business activities.
- If a water risk proves to exist, Mizuno will adopt appropriate countermeasures according to the nature of the risk and the social situation.



Materiality

Reduction of hazardous chemical substances

Basic Concepts

Mizuno puts effort into reducing its use of chemical substances that could be harmful to the human body and ecosystem, and it also puts effort into finding substitutes to replace such chemical substances. Mizuno's offices conduct risk assessments into chemical substances according to categories, based on their hazardousness and harmfulness, and put effort into finding substitutes with lower risks.

In FY 2022, there were no major cases of leakage of hazardous chemical substances from Mizuno's manufacturing factories. In addition to Mizuno's manufacturing bases, Mizuno's offices and stores also performed risk assessments of chemical substances used to repair products.

* Mizuno has a system for managing hazardous chemical substances to ensure that it offers safe and proper quality products. To find out more about the system, please visit Mizuno's Responsibility for Safe and High-quality Products website.

Reducing organic solvent (toluene) emissions

As a measure to reduce the adverse effect that toluene could have on the health of its employees, Mizuno puts effort into reducing toluene emissions by replacing currently used adhesives containing toluene at shoe manufacturing sites with water soluble adhesives.

Storing PCB

The Law Concerning Special Measures against PCB Waste requires business operators who store PCB waste to annually report the condition under which PCB waste is being stored and to dispose of PCB waste by the end of March 2027.

At Senotech, one transformer with low PCB content is being stored. Therefore, the company submits an annual report in June to the local municipalities on the storage and disposal status of the polychlorinated biphenyl (PCB) waste.

Future issues to be addressed

- Mizuno is committed to using materials that do not contain hazardous chemical substances, starting from the design stage of the manufacturing process.
- Mizuno's ultimate goal is to switch to paints and adhesives that do not contain organic solvents. If an immediate switch is not possible, Mizuno will transition to ones that contain solvents with lower levels of hazard.



Materiality

Reduction of waste

Basic Concepts

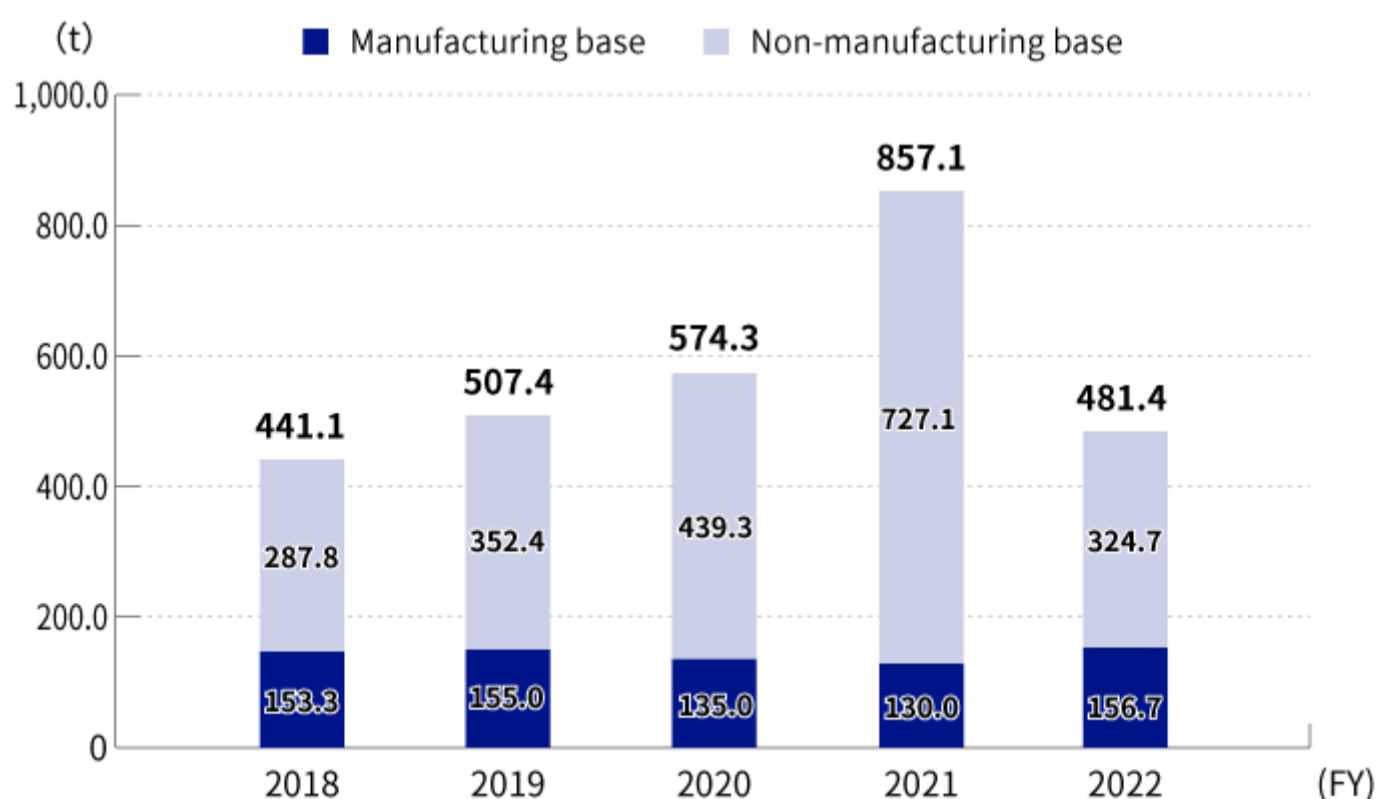
To help prevent environmental pollution and create a world that uses sustainable resources, Mizuno puts effort into reducing waste by taking into consideration its products' life cycles, from the designing and manufacturing stages to product use and disposal. In addition, Mizuno ensures that industrial waste generated at each of its offices is disposed of properly by checking manifests and regularly visiting offices. Mizuno's main offices operate based on digital manifests.

Reduction of Industrial Waste

Mizuno's manufacturing bases have long been committed to reducing industrial waste. For FY 2022, the target for industrial waste emissions was set at 126.8 tons, but the actual result was 156.7 tons. This was a 20.6% increase over the target and a 23.6% increase compared to the previous fiscal year.

This was largely due to the need to dispose of leather scraps that became subject to valuable trading, particularly as demand decreased in the wake of the COVID-19 pandemic.

Gross weight of industrial waste by base [*b]



Efforts Towards Resource Recycling

Mizuno is committed to reducing the total amount of waste at its domestic manufacturing bases, emphasizing reuse and separation, and sharing information between business locations to turn waste into valuables for recycling as resources. Mizuno Technics recycles 99.8% of the industrial waste it generates. Starting in fiscal year 2020, leftover leather from glove manufacturing has been recycled and sold as valuable material, and at sales locations, it is processed into DIY leather sheets for effective use.

* General waste is not included in Mizuno's zero emission goal.

Reducing the environmental impact of apparel product tags

Mizuno will start using mixed paper that contains offcuts generated during the cutting of the apparel fabric, for the product tags of new apparel introduced in the 2023 spring / summer season for the Japanese market. Through this initiative, we aim to reduce wastage of apparel material and minimize the use of paper resources. We are also working on reducing the use of product tags itself by simplifying, consolidating and digitalizing tags, with a view to reducing the number of product tags by approximately 4 million pieces per year.

Through these efforts, it is expected that we will reduce CO₂ emissions by approximately 11.8 tons annually.



For more information, please refer to <https://corp.mizuno.com/en/articles/0045>

Gross weight of waste by treatment method being adopted at Mizuno's domestic manufacturing bases (four factories) and waste sold as valuables [*e]

[Please refer to our ESG data.](#)

Mizuno's plastic waste zero declaration

Mizuno puts effort into reducing plastic waste in collaboration with its entire value chain. Mizuno promotes the use of recycled plastics in its manufacturing process. Mizuno's factories and offices put effort into sorting waste and recycling plastic waste to produce solid fuel and manufacture various kinds of equipment. In addition, Mizuno's stores put effort into reducing garbage by promoting simple packaging. Furthermore, Mizuno's Osaka Head Office puts effort into helping reduce garbage in the following ways: 1) cleaning the streets of the Cosmo-square district and 2) helping the local community clean the riverbed of the Yamato River in collaboration with Kansai University.

All stores around the world directly managed by the Mizuno Group have switched to packaging purchased goods in environmentally friendly paper bags, instead of plastic bags, which are more likely to be disposed of immediately. Mizuno also aims to switch to packaging caddie bags and golf clubs, which require bags relatively more durable than regular paper bags, in environmentally friendly bags as soon as possible.

Future issues to be addressed

- Mizuno aims to not only reduce emissions generated during its manufacturing process but also reduce its use of packing material and packages, and it aims to do so by planning ahead how it could reduce waste, beginning at the designing stage of its manufacturing process.
- Up until now, efforts to reduce waste have primarily been made by manufacturing bases. However, to reduce as much waste as possible, Mizuno will apply what it has learned through such efforts to reducing waste at its non-manufacturing bases that currently generate relatively large amounts of waste.
- Mizuno will also encourage Sharp Sangyo Co., Ltd., a group company, to adopt digital manifesting, a technology it has not yet implemented.



Business activities and environmental burden

Business activities and environmental burden (input and output) [*b]

Below are data on Mizuno’s input of energy and resources and output of GHG emissions and waste in Japan in FY 2022. Mizuno strives to enhance the efficiency of its business activities and resource use.

INPUT

Energy	
Electricity	9.5 GWh
Regional air conditioning	11,989 GJ
City gas	47,000 m ³
LP gas	74.3 t
Kerosene	32.2 Kl
Gasoline	548.4 Kl
Light oil	124.6 Kl

Water resources	
Total water intake	43,000 m ³

Resources	
Cardboard	1,241.0 t



Mizuno (domestic offices and manufacturing bases)



OUTPUT

Energy	
CO ₂	8,162 t-CO ₂
NO ₂	6,777 kg

Effluent	
Total effluent	43,000 m ³

Chemical substances	
Emissions of substances subject to the PRTR law	3.7 t
Transportation of substances subject to the PRTR law	0 t

Waste	
Industrial waste (manufacturing bases)	156.7 t
Industrial waste (non-manufacturing bases)	324.7 t
General combustible waste	42.8 t

* Data on manufacturing bases in Japan, including Senoh Group bases