Initiatives towards Environment

Support for the TCFD

Mabuchi Motor has expressed its support for the recommendations of the Task Force on Climate-related Financial Disclosure ("TCFD"). Based on the TCFD recommendations, we will analyze the risks and opportunities that climate poses to our business, and by proactively disclosing information, we will build strong and long-term relationships of trust with all of our stakeholders and contribute to the realization of the sustainable society.

Governance

We recognize climate change and other environmental issues as one of our key management challenges. Basic policies on climate change issues and the environment as a whole are among the matters of major importance discussed and resolved by the Board of Directors. The Sustainability Committee, chaired by the President, promotes activities to address climate change and reduce environmental impact more broadly, clarifying the issues and goals and monitoring the impact of the activities on those goals. The Sustainability Committee comprises representatives from each relevant business unit and meets at least twice a year (six meetings took place in 2024) to investigate and discuss company-wide sustainability issues, including identification and assessment of risks and planning of countermeasures. A system is in place to ensure that the oversight provided and decisions made by the Board of Directors are appropriately integrated throughout the company by reporting the results of the Committee's deliberations to the Board of Directors.

Strategy

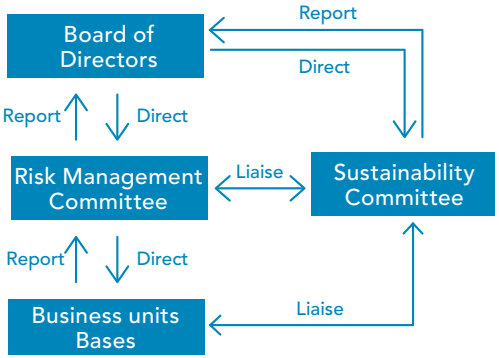
In order to identify risks and opportunities presented by climate change, we hypothesized a future world scenario by drawing on scenarios published by international organizations covering the entire value chain of our Group, across development, procurement, production, and supply of products and services, and examined the impact on the Group at two points in time: 2030 and 2050.

In terms of the financial impact on business based on the scenarios established, we examined mathematical models to calculate the impact on items that could be calculated, estimating the impact on income and expenditures in 2030 and 2050 for each item. In addition, the magnitude of the impact at a future point in time was considered by evaluating qualitatively the risks and opportunities that are difficult to assess quantitatively.

Risk management

The Sustainability Committee identifies and assesses climate change risks and formulates countermeasures, which are reported to the Board of Directors and coordinated with the Risk Management Committee and the departments in charge. The Risk Management Committee, as part of the Group-wide risk management and assessment process, classifies risks that have a significant impact on management, including climate change risk, into two main categories: management issues faced when executing strategies in diverse business environments (strategic risks) and risks that may occur in the course of business operations (business operation risks). The risks are then evaluated based on the Group's definitions and reported to the Board of Directors.

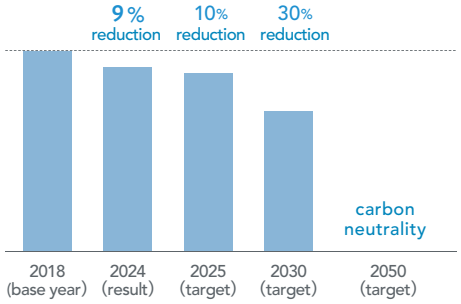
A business unit in charge is assigned for each risk identified and assessed through these processes, and the business unit in charge formulates and manages countermeasures and action plans. Each business unit in charge reports the management implementation status and results to the Risk Management Committee, which then reassesses and corrects the risks.



Metrics and targets

The Company is promoting activities to achieve carbon neutrality by 2050 to address climate change, which is an urgent issue for the international community, in addition to the mid-term goal of reducing CO_2 emissions by 30% from the 2018 level by 2030. To this end, we are promoting measures to reduce CO_2 emissions, including the installation of solar power generation systems, the adoption of systems that recover and reuse waste heat, the use of renewable energy sources, and the use of energy-efficient production facilities.

CO_2 emissions targets and results (Scope1,2)



▶For actual data on CO_2 emissions, please refer to ESG data P.52

Initiatives towards Environment

Strategy ／ Scenario Analysis Results

1.5°C scenario

A scenario in which the global average temperature rise is limited to around 1.5°C by transitioning to a low-carbon global economy with the goal of achieving carbon neutrality by 2050. The rise in temperature is limited by developing low-carbon technologies to curb greenhouse gas emissions and enforcing strict laws and regulations, and taxation systems, to achieve carbon neutrality. Although the increasing frequency and scale of extreme weather events and other physical risks will be contained under this scenario, transition risks will increase with the change in social structure in the move toward decarbonization.

4°C scenario

A scenario in which the earth's average temperature rises by 4°C or more by the end of this century compared to the earth's average temperature around the time of the Industrial Revolution, with initiatives to combat climate change remaining at their current level. While the direct physical risks posed by ever more extreme weather events such as windstorms, floods, and rising sea levels will increase, the impact of transition risks will be smaller, since this future world scenario does not envisage increased pressure on markets in the form of legal restrictions and taxation.

Reference: Intergovernmental Panel on Climate Change (IPCC) RCP8.5/RCP2.6
International Energy Agency (IEA) STEPS/SDS/NZE2050

Under the 1.5°C scenario, although costs are expected to increase due to carbon pricing and higher energy prices, the automotive industry in particular and other industries more widely are expected to take more active steps toward carbon neutrality. Demand for electrification will grow, and we expect this growth to benefit the demand for the motors offered by our company. Under the 4°C scenario, the risk of greatest concern is increased losses due to direct damage from meteorological disasters and associated stoppages.

These analyses will provide the basis for specific measures that each business will consider and formulate to prepare for all possibilities in an uncertain future world. Going forward, we will conduct periodic analyses in light of various trends to review our evaluations and enhance both the quality and quantity of information disclosure.

▶ Please refer to P.32~34 for specific details of measures already in progress.

	Risks and opportunities	Possible factors	Possible events	Financial impact assessment 2030	Financial impact assessment 2050	Measures being implemented / measures to be considered
1.5°C scenario	Opportunities	Advancement of energy-saving and low-carbon technologies	● Increased order opportunities due to the transformation of demand for EVs and other motor vehicles ● Increased demand for motors due to the electrification of various industrial machinery	Large	Large	● Promote energy efficient production processes ● Create more compact an light weight motors ● Environmentally friendly product design
	Risks	Impact on raw material prices	● Impact on purchase costs due to raw material price increases or decreases caused by the addition of a carbon price to the product purchase price or changes in the supply-demand balance	Large	Large	● Promote green procurement ● Promote resources recycling
	Risks	Carbon pricing	● Increased costs due to new systems and regulations, such as the introduction of a carbon tax and emissions trading	Medium	Medium	● Set and promote CO_2 emission reduction targets ● Use renewable energy
4°C scenario	Risks	Impact on raw material prices	● Increased value of damage and losses following damage to facilities and fixtures and shutdown of operations as a result of meteorological disasters ● Fragmented supply chain and its impact on business continuit	Medium	Large	● Formulate and strengthen BCP ● Conduct emergency response drills
	Risks	Increasingly severe abnormal weather events	● Instability in raw material procurement due to acute and chronic impact of climate change	Medium	Large	● Consider and implement alternative and distributed procurement ● Promote appropriate ventory control and risk anagement
	Risks	Rise in average temperatures	● Increased operating costs, including higher air conditioning costs due to higher average temperatures	Medium	Medium	● Promote energy conservation ● Establish an environmental education system

Financial impact: Large: more than 1 billion yen; Medium: 100 million yen to less than 1 billion yen; Small: less than 100 million yen

Initiatives towards Environment

Mabuchi Motor has established the "Mabuchi Group Environmental Policy" and is committed not only to producing environmentally friendly products but also to reducing environmental impact throughout the entire supply chain, from development and design to production processes and distribution, so that our corporate activities do not sacrifice the global environment and people's health.

Mabuchi Group Environmental Policy

We aim for the sustainable society by carrying out our corporate activities without sacrificing global environment and human health, and by striving for continual improvement through our environmental management system.

1.While complying with environmental related laws and regulations and other requirements, we make diligent efforts to prevent and control pollution, always recognize the impact of our business activities on the environment and control the impact based on our own standards.
2.In order to realize the more sustainable society and reduce the environmental burdens associated with our business activities, we focus on the following:

(1)As a response to climate changes, we actively work on energy saving, renewable energy use, resource saving, recycling, and waste reduction, in order to reduce CO_2 emission toward carbon neutrality and make effective use of limited resources.
(2)In our products and production processes, we thoroughly manage any substances of concern and seek to switch to equivalent alternative substances as much as possible.
(3)We perform "green procurement" activity using environmentally-friendly parts and materials.
(4)We contribute to reducing the environmental impact on whole society promoting development and sale of environmentally friendly products.
(5)Responding to the conservation of biodiversity as an important corporate objective, we promote initiatives considering the ecosystem.

3.We actively conduct environment-related educational activities to raise the environmental awareness of each and every employee.
4.This environmental policy will be shared with all employees and announced outside parties.

Representative Director and President
Tohru TAKAHASHI
Established on: September 27, 1998 / Revised on: March 28, 2024

Environment Management System

We consider harmony with the global environment and its preservation to be important themes, and have established an environmental management system that complies with ISO 14001 international standards, and are continuously working on environmental activities.

Environmental Organization of the Mabuchi Group

Whole Mabuchi Group is supervised by President of the Headquarters, and the environmental management system of entire Mabuchi Group is supervised by Head of Quality Assurance Headquarters as Environmental Management Representative.
The Environmental Management Committee is established at the Headquarters. This committee is comprised of the chairman, who is the Environmental Management Representative, and general managers of each department. They discuss and determine the Mabuchi Group's environmental policy, objectives, and measures to be taken. Also, we have set up the Chemicals Task Force under the Environmental Management Committee. That task force proposes measures in each specialized area and promotes environmental preservation activities.
Environmental management organization chart is here.

Initiatives towards Climate Change

The Company is promoting activities to achieve carbon neutrality by 2050 to address climate change, an urgent issue facing the international society. In May 2023, we joined the GX League*1 and in December 2024, we announced our commitment to obtain SBT certification*2 to promote our efforts to reduce greenhouse gas emissions.
Further, we have established the mid-term target of reducing CO_2 emissions 30% by 2030, compared to the level in 2018. To this end, we have been promoting initiatives to reduce CO_2 emissions, including the use of renewable energy sources and the saving of electricity at production facilities. These involve, for example, the installation of solar power generation systems and the introduction of systems for recovering and reusing waste heat. In the future, we will accelerate our efforts to achieve the goal, aiming to obtain SBT certification in order to reduce greenhouse gas emissions not only from our own activities but also from the entire supply chain.

*1 GX League: The Ministry of Economy, Trade and Industry established the league to be a forum for companies actively working on GX (green transformation) to collaborate with other companies and government and educational institutions engaging in similar efforts and engage in practical discussion to change the overall economic and social system and create new markets with a view toward social change and the realization of carbon neutrality by 2050.
*2 SBT Certification: SBT (Science Based Targets) certification indicates that a company's greenhouse gas emissions reduction targets are consistent with the levels required to achieve the Paris Agreement's goal of limiting the rise in global temperature to less than 1.5°C above pre-industrial levels.

Initiatives towards Environment

Introducing renewable energy

The Company works to reduce CO_2 emissions by using more renewable energy. The solar power generation systems installed at the Headquarters, Dongguan Mabuchi, Daojiao Mabuchi, Vietnam Mabuchi, Danang Mabuchi and Poland Mabuchi generated nearly 6.87 million kWh of electric power in 2024 and the power was used at the respective facilities. Moreover, the Headquarters has adopted a renewable energy-derived electricity plan since April 2024, which will enable virtually 100% of the electricity used at the Headquarters to be generated from renewable energy*. We will continue to systematically introduce renewable energy.


The solar power generation system installed at Danang Mabuchi

*Real renewable energy: Purchasing FIT non-fossil certificates and use of solar power from our rooftops

Effective Use of Resources

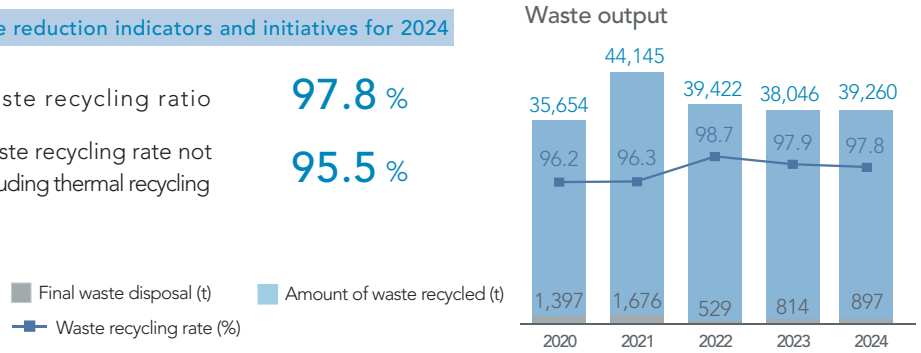
Initiatives to reduce waste output

Our goal is to realize a recycling society that recovers and reuses waste as a resource and reduces the amount of waste sent to landfills. In addition to reducing the amount of waste itself, reusing generated waste as resources is an important and indispensable part of realizing a recycling society. In addition, from 2023, we have begun tabulating the recycling rate when thermal recycling is not included. The entire Mabuchi Group will continue to promote waste reduction and reuse (recycling) initiatives.

Waste reduction indicators and initiatives for 2024

Waste recycling ratio **97.8 %**

Waste recycling rate not including thermal recycling **95.5 %**



Initiative to Effectively Utilize Water Resources

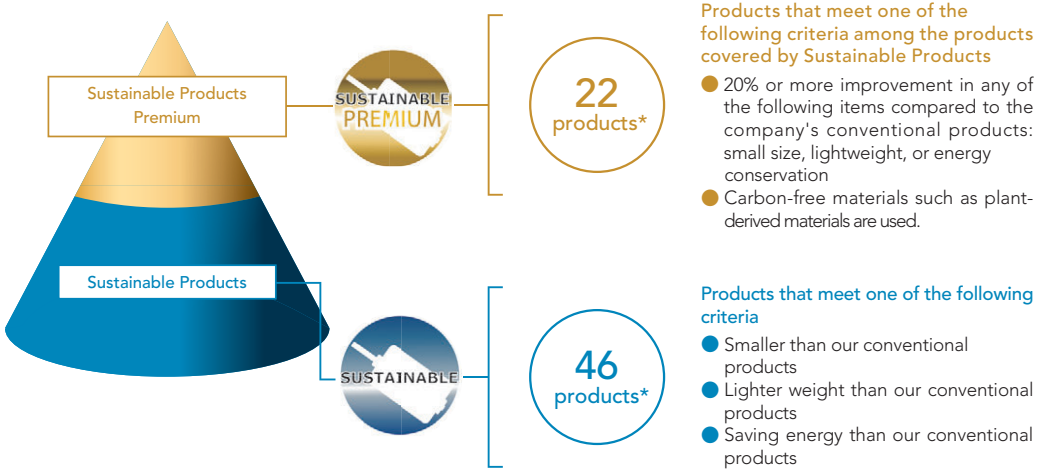
In order to conserve water resources, we actively use rainwater. The Headquarters have been using rainwater since 1991, and various Group locations are also actively using rainwater.

Moreover, Jiangsu Mabuchi and other Group locations have built wastewater treatment facilities at our factories, reusing some of the treated water for watering plants and toilets. We will continue to monitor the impact of our business on water and strive to protect water resources.

Creation of Environmentally Friendly Products

We contributes to reducing the environmental impact of society as a whole by standardizing small, lightweight, and highly efficient motors and achieving lean production and sales, thereby making our customers' products smaller, lighter, and more energy-efficient. In June 2022, we introduced a system to certify our products with outstanding environmental contributions as "Sustainable Products" and "Sustainable Products Premium".

By promoting the development and sale of environmentally friendly products, we will contribute to reducing the environmental impact of society as a whole. The direction of the environmental performance to be aimed for is set from the product planning stage, and the environmental performance is verified at each stage of development, design, and commercialization.



*Number of certified Sustainable Products (as of December 31, 2024)

Initiatives towards Environment

Production in Consideration of the Environment

We are actively promoting various environmental load reduction activities ranging from the control of environmentally hazardous chemical substances used in the production process, to power saving of production facilities and machines, and improvement of the work environment for employees.

Introducing internal carbon pricing (ICP)

ICP is designed to create economic incentives to reduce emissions and internally encourage action against climate change by setting internal carbon prices and converting CO_2 emissions into a cost. In making plans for investing in equipment that emits CO_2, we apply internal carbon pricing and convert these emissions into a virtual cost. We consider this as one of the factors in equipment selection and investment decisions.

ICP at Mabuchi Motor

- Internal carbon price: 11,000 yen/t-CO_2*[1]

  *Internal exchange rates are used for conversions at overseas bases. We will review the price as appropriate in consideration of the fluctuation of emission credit prices, etc.
- Scope of the program: Investments in facilities that emit CO_2
- Application method: CO_2 emissions are converted into a cost by applying an internal carbon price, and considered as one of the factors in the selection of equipment and the making of investment decisions.

Compliance with various laws and regulations

We are taking measures to add regulated substances, change prohibited ranks, etc., according to the European RoHS Directive, the European ELV Directive, restricted substances and SVHC (substances of very high concern) of the European REACH Regulation, Class I Specified Chemical Substances under the Japanese Chemical Substances Control Law*[2], GADSL (voluntary standards of the automobile industry), other regulations, customer requests, Mabuchi Group voluntary standards, etc. We are responding to such requests with an eye to the future.

Thanks to our daily communication with suppliers and our proactive efforts in auditing the use and storage of environmentally hazardous substances, we have not experienced a single environmental accident since the enforcement of the European RoHS Directive in 2006.

* 2 Chemical Substances Control Law: Law concerning examination of chemical substances and regulation of manufacturing, etc.

Initiatives to Preserve Biodiversity

Environmental symbiosis in the community

A "bio-garden" has been established in the front of the Headquarters site based on the concept of environmental symbiosis in the community. It is designed to restore the natural environment of Matsudo-city, where the Headquarters is located, to the Matsuhidai Industrial Park. Considering the impact of non-native species on the local ecosystem, the goal of the bio-garden is to restore the original ecosystem by planting wildflowers that have traditionally grown around Matsudo-city. On the rooftop of our Headquarters, we are greening the rooftop, which is believed to be effective in mitigating the urban heat island effect. From 2024, we will collaborate with the Nature Conservation Society of Japan, of which we are now a member, to further promote biodiversity-related activities.

Bio-garden in front of the Headquarters

Rooftop garden at the Headquarters

Environment Communication

We believe it is important for each employee to understand the relevant Environmental Policies and take the initiative based on an awareness of, knowledge on, and ability in environmental affairs. To trainemployees who can implement the above, we are implementing our environmental education and training system. For the Headquarters and each base, we have established "general education" that each employee receives, and have constructed an environmental education and training system by job level, workplace and activity.

Proactive environmental impact reduction activities at each site

"Mabuchi Group Environmental Activities" is a program in which all Mabuchi Group sites are invited to submit proposals for activities that contribute to reducing their environmental impact, and the Environmental Management Committee at the Headquarters reviews and awards outstanding activities. Dalian Mabuchi, which won first place, purchased 12.5 million kWh of wind-generated green power and achieved an annual reduction of approximately 7,425 tons of CO_2 emissions. Going forward, the Headquarters will continue to take the lead in promoting environmental load reduction activities at all Mabuchi Group sites.