

Environmental Initiatives

For a decarbonized society

Mabuchi Motor 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* and accelerated initiatives for the reduction of GHG emissions. Further, we have established the mid-term target of reducing CO₂ emissions 30% by 2030, compared to the level in 2018. To this end, we have been promoting initiatives to reduce CO₂ 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. We will steadily push forward with these initiatives toward the realization of a decarbonized society.

*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.

▶ Introducing renewable energy

Mabuchi Motor works to reduce CO₂ emissions by using renewable energy to generate power. The solar power generation systems installed at Dongguan Mabuchi and Daojiao Mabuchi in China generated nearly 1.37 million kWh of electric power in 2022 and the power was used at the factories. The solar power generation system installed at Danang Mabuchi in Vietnam in March 2022 generated nearly 1.07 million kWh of electric power within the same year. In March 2023, the installation of a solar power generation system at the Headquarters was completed. We will continue to systematically introduce renewable energy.



The solar power generation system installed at the Headquarters.

▶ 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 CO₂* emissions into a cost. In making plans for investing in equipment that emits CO₂, 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-CO₂*
- * 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 CO₂
- Application method: CO₂ 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.

▶ Mabuchi Group's environment activities

Measures and results that contributed to reduction of environmental impact are collected from all of the bases of the Mabuchi Group as we are committed to the Mabuchi Group's environment activities to commend outstanding activities via evaluation by the Environmental Management Committee at the Headquarters.

In 2022, a total of 89 CO₂ emissions reduction activities were submitted from 15 bases and many different measures were taken. Through the Mabuchi Group's environment activities, we will facilitate the proposal and implementation of measures to reduce the environmental impact of the different bases of the Mabuchi Group, thereby expanding our contribution to global environment.

Examples of Jiangmen Mabuchi's activities

Jiangmen Mabuchi, a production base in China, significantly reduced its power consumption by optimizing the factory's layout to save space and discontinuing the operation of air-conditioners and other equipments that were no longer necessary.



Before improvement



After improvement

▶ Initiatives to reduce waste output

We set the target of recycling 95% or more of the waste we generate, aiming to establish a recycling-oriented society where waste is collected and recycled as resources and the amount of waste disposed in landfills is minimized. To establish a recycling-oriented society, it is necessary to reuse waste as resources in addition to reducing waste. The efforts to reduce and recycle waste will continue throughout the Mabuchi Group.

Waste reduction indicators and initiatives for 2022

Target

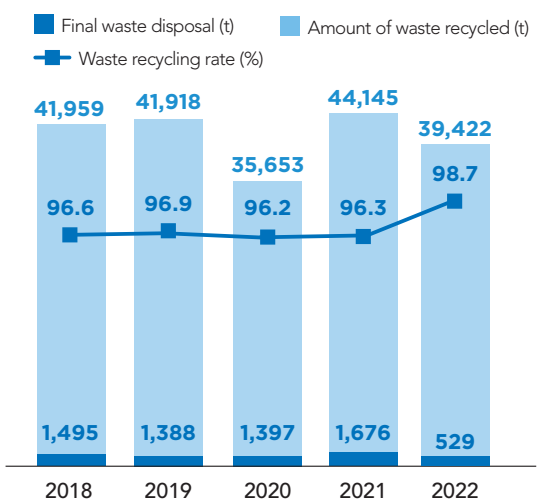
Waste recycling ratio **95.0% or higher**

Results

Waste recycling ratio **98.7% (achieved)**

- Training on waste separation and reduction was introduced to the Headquarters.
- Started to count not including thermal recycling in recycling.

Waste output



Biodiversity Initiatives

▶ 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.

Additionally, we joined the Biodiversity Chiba Corporate Network as a part of our commitment to biodiversity. The Biodiversity Chiba Corporate Network is a collaboration between the prefectural government of Chiba, NPOs, NGOs and other supporting organizations to share biodiversity-related information, expertise and problems with the goal of promoting the biodiversity efforts of the companies participating in the network.



TOPICS

- Growing Himekomatsu, an endangered species designated by Chiba Prefecture, which was planted in November 2021.
- Exterminated a non-native species (tall goldenrod) to maintain and manage the bio-garden.
- Biodiversity Chiba Network's activities: Satellite for Biodiversity remodeled

The Satellite for Biodiversity is placed in the Headquarters cafeteria for displaying posters and newsletters to enable employees and visitors to deepen their understanding about the importance of biodiversity.

- Mexico Mabuchi holds a tree-planting event

A tree-planting activity took place at Mexico Mabuchi in August 2022 with the goals of facilitating CO₂ absorption and preserving the natural environment. 65 volunteers from Mexico Mabuchi and 15 participants from the municipal government of Rincón de Romos gathered and planted 100 trees.



Himekomatsu



Tree-planting event
(Mexico Mabuchi)

Environmental Initiatives

Promoting green procurement

In procurement activities today, engaging in your company's environmental conservation activities is not sufficient for the development of products with low environmental impact during the product lifecycle from the collection of raw material resources to the manufacturing, processing, logistics, sale, consumption, use, disposal and recycling of the product.

Therefore we evaluate suppliers' environmental initiatives and cooperate with the suppliers in the reduction of environmental impact and the avoiding of environmental risks.

As shown in the flowchart below, we ask our suppliers to implement green procurement activities and fill in and submit an environmental activity survey sheet and documents guaranteeing that their raw materials and parts do not contain environmentally banned substances. We also actively conduct environmental audits to check suppliers' use and storage of environmentally hazardous substances.

In addition, all materials used by the Mabuchi Group are regularly analyzed and surveyed to ensure that they do not contain environmentally banned substances.

► 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*, GADSL (voluntary standards of the automobile industry), other regulations, customer requests, Mabuchi Group voluntary standards, etc., in order to meet the needs of the future. 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. We will continue to promote green procurement activities together with our customers and suppliers.

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

Green Procurement Flowchart

