



# The Mabuchi Group 2015 Social & Environmental Report

Social & Environmental Report



## Editorial Policy

Mabuchi began to publish its environmental report in fiscal 2001. In 2008, we changed the report title from the Environmental Report to the Social & Environmental Report, and started covering our social activities in addition to the environmental activities we conduct to preserve the global environment.

As a corporate citizen, we will continue to be fully accountable for our CSR approach and the results of our activities through the publication of the report. Also, we will continue to improve our performance by further promoting communication with all stakeholders of the Mabuchi Group.

In consideration of the environment, this report is published on our website in PDF format and not available in printed format.

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**Period:** Fiscal 2014 (January 1, 2014 - December 31, 2014)

**Activities covered:** Details of environmental and social activities related to the design, manufacture, and sales of motors and provision of services

**Scope:** The Mabuchi Group

[Japan (Corporate Headquarters)]  
• Mabuchi Motor Co., Ltd.

[The Americas]

- Mabuchi Motor America Corp. (America Mabuchi)
- Mabuchi Motor Mexico S.A.DE.C.V.(Mexico Mabuchi)

[Europe]

- Mabuchi Motor (Europe) GmbH (Europe Mabuchi)

[Asia Pacific]

- Mabuchi Taiwan Co., Ltd. (Taiwan Mabuchi)
- Mabuchi Motor Taiwan Ltd. (Kaohsiung Mabuchi)
- Mabuchi Motor Vietnam Ltd. (Vietnam Mabuchi)
- Mabuchi Motor Danang Ltd. (Danang Mabuchi)
- Mabuchi Motor (Singapore) Pte. Ltd. (Singapore Mabuchi)
- Mabuchi Motor Korea Co., Ltd. (Korea Mabuchi)

[China, Hong Kong]

- Mabuchi Industry Co., Ltd. (Hong Kong Mabuchi)
- Mabuchi Motor (Dongguan) Co., Ltd. (Dongguan Mabuchi)
- Mabuchi Motor (Yingtian) Co., Ltd. (Yingtian Mabuchi)
- Mabuchi Precision (Dongguan) Co., Ltd. (Ludong Mabuchi)
- Mabuchi Motor Dongguan Daojiao Co., Ltd. (Daojiao Mabuchi)
- Mabuchi Motor (Jiangxi) Co., Ltd. (Jiangxi Mabuchi)
- Mabuchi Motor Dalian Co., Ltd. (Dalian Mabuchi)
- Mabuchi Motor Wafangdian Co., Ltd. (Wafangdian Mabuchi)
- Mabuchi Motor (Jiangsu) Co., Ltd. (Jiangsu Mabuchi)
- Mabuchi Motor (Shanghai) Co., Ltd. (Shanghai Mabuchi)
- Mabuchi Motor (Shanghai) Co., Ltd. Chongqing Branch (Chongqing Mabuchi)
- Mabuchi Motor Trading (Shenzhen) Co., Ltd. (Shenzhen Mabuchi)

# Actuating Your Dreams

Mabuchi Motor was born and has grown together with dreams.

The dreams of children, technicians and our customers. We have continued to move forward and grow, fulfilling the dreams of many people.

Moving into the 21st century, the age of change, small electric motors as functional components continue to create new dreams in various situations around the world while supporting the lives of people and society.

Thinking of the present and the future, we will continue to generate the power needed to realize each and every one of these dreams by steadily supplying the people around the world with high-quality products at attractive prices.



Horseshoe-shaped magnet motor that the founder invented in 1947

## Corporate Outline

- |                        |  |                                 |  |
|------------------------|--|---------------------------------|--|
| ■ Trade name:          | Mabuchi Motor Co., Ltd.<br>MABUCHI MOTOR CO., LTD.                       | ■ Consolidated Business Results | Net sales: 122,544 million yen<br>Net income: 18,090 million yen<br>(FY2014 ended Dec. 31) |
| ■ Established:         | January 18, 1954   | ■ Head Office:                  | 430 Matsuhidai, Matsudo-shi, Chiba-ken,<br>270-2280 Japan Tel.: +81-47-710-1111            |
| ■ Field of operations: | Manufacture and sales of small electric motors                           | ■ Technology Center:            | 280 Ryufukuji, Inzai-shi, Chiba-ken,<br>270-2293 Japan Tel.: +81-47-710-1222               |
| ■ Capital:             | 20,704.81 million yen  |                                 |  |
| ■ President:           | Hiroo Okoshi   |                                 |  |
| ■ Employees            | Head Office: 738      Mabuchi Group: 25,354<br>(as of December 31, 2014) |                                 |  |

## Progress of the environmental activities of Mabuchi Motor

- |       |  |       |   |
|-------|--|-------|---|
| 1993: | The Management Guideline "Conduct corporate activity which preserves the earth's environment and protects human health" is explicitly stipulated.  | 2002: | Shipment of hexavalent chromium-free sample motors is started.  |
| 1997: | The Environmental Management Committee is established to take specific measures against environmental problems.                                    | 2004: | The new Head Office building incorporating advanced energy-efficient technologies is completed.   |
| 1998: | Mabuchi Group's Basic Environmental Policy is established.   | 2006: | The production policy is switched to the production of motors complying with the EU's RoHS and ELV directives, and a green procurement explanatory meeting is held at all production bases. |
| 1999: | ISO 14001 Certification is acquired.   | 2008: | The report title, the Environmental Report, is changed to the Social & Environmental Report (report on social activities added).  |
| 2000: | Start of green procurement activities (Selection and evaluation of alternative materials for the production of cadmium-free motors are completed.) | 2012: | The Basic Environmental Policy is revised and established as the Mabuchi Group Environmental Policy.  |
| 2001: | Publication of the Environmental Report is started. Preparations for the commercial application of lead-free soldering are completed.              | 2014: | Sales of the small and high-torque-power seat motor, which does not use a neodymium magnet (RZ-46BWA), started.   |



May 2015  
Mabuchi Motor Co., Ltd.  
President and Representative  
Director

大越博雄  
Hiroo Okoshi

## Create new values for society through business activities

Mabuchi Motor was established in 1954 with a wish to enable children around the world to be able to enjoy high-quality and low-cost motors. “Contribution to international society and continuous expansion of that contribution” is the management principle and basic concept applied to all activities of Mabuchi motors. All employees of the Mabuchi Group are working daily with an awareness that companies exist to contribute to society and create happiness for people. Our management principle is a perfect match with the concept of CSV (Creating Shared Value) which aims to successfully respect both social and corporate values and solve social problems through corporate and commercial activities. We are aiming to contribute to society through activities to solve social problems, whereby such activities have the same direction as and coexist with corporate activities, and they can both be carried out in a sustainable way.

Specifically, Mabuchi Motor’s most important mission as a specialized manufacturer is to supply better and cheaper products and contribute to reducing the size and weight of our customers’ final products, thereby conserving energy and resources society-wide. We aim to do this by utilizing our technology and wisdom, thereby making the lives of our customers more convenient, comfortable, and safe. Therefore, we are striving to thoroughly develop the potential uses and benefits of motors and enhance their values.

After the launch of operations in Hong Kong in 1964, Mabuchi Motor has aggressively built global production and supply systems. We have also contributed to developing economies and human resources in the regions of our global operations by creating employment and transferring technologies in the process of globalization.

Last year, we established our first production base outside of Asia, in Mexico. This pushed our effort to pursue global production and a supply system to a new stage. We are going to further expand our social contribution to the world.

In addition, we are actively participating in social contribution activities as corporate citizens. Particularly, we are continuously supporting education through motors through the “Actuating your Dreams” activity for young people who will become leaders in the future. Their encounter with motors may give them an opportunity to develop an interest in *making things* or in *technology*. When we see them, we can expect wonderful growth for children that have enthusiastic and sparkling eyes in craft classes and that visit classes, as well as students who are working hard with great ideas in robot contests.

People are creators of societies, and it is extremely important for international society to foster and train the next-generation of engineers. By offering educational opportunities for people to experience various applications for our motors, we can contribute to fostering people who will play leading roles in the future, and we may influence future technologies and products using our motors, which will give us great pleasure.

Modern societies are facing various problems such as resource and energy depletion, environmental destruction caused by economic development, wealth disparities, and labor problems. No company can exist if it is isolated from society. Similarly, no company can sustain itself without a prosperous society. At the Mabuchi Group, we are going to actively work on solving these social problems through our business operations with various stakeholders. We would appreciate your continued support.

**Management Principle** “Contributing to international society and continuously increasing our contribution.”

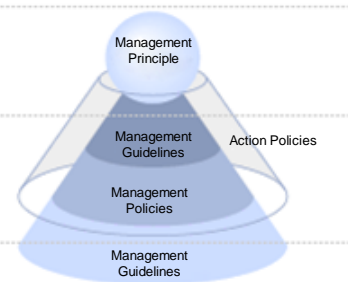
**Management Guidelines**

1. By bringing better and more reasonably priced goods to the market, we contribute to the creation of a more affluent society and more comfortable lives for everyone.
2. Contribute to eliminating international economic disparities and to economic development in other countries through the creation of employment opportunities and technology transfers.
3. People are the most important managerial resource.
4. Conduct corporate activity which preserves the earth's environment and protects human health.

Ideas which never change

Ideas which do not change in a short time

Ideas which change with time



Mabuchi Management Vision System



Danang Mabuchi received “the 2014 Green Brand Award” from the Vietnam Central Investment & Planning Bureau as a company producing environmental products.



## Social contribution through motors

The Mabuchi Group is committed to pursuing the possibilities of motors and enhancing their value to deliver better products with lower prices all while keeping them in stable supply. We also seek to reduce the size, weight, and energy consumption of motors, as well as contributing to the conservation of resources and energy in our entire society.

## Social contribution through motors

# Manufacturing Eco-Friendly Products

We at Mabuchi help the entire society to become eco-friendly by improving the performances of consumer products by increasing energy efficiency, reducing size and weight, increasing output, and lengthening the service lives of our motors.

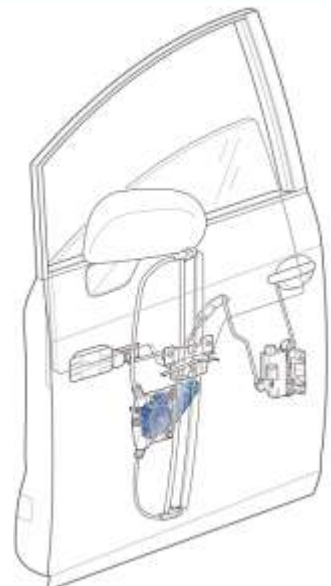
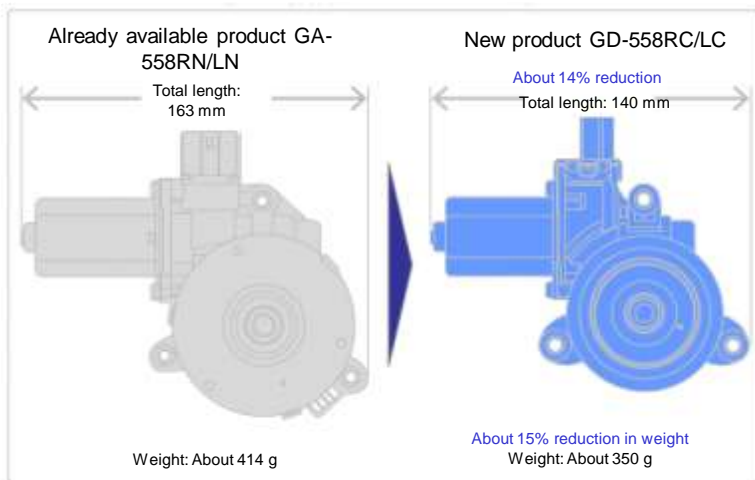


### Motors for PW (power windows) The GD-558 series

The GD-558 series is a lineup of motors for power windows. They contain a ferrite magnet and have about 14% shorter length and 15% less weight compared to conventional models. This product reflects our pursuit for smaller size, lighter weight, and lower cost in designs which are our strengths. This product helps to reduce the weight of an automobile and thereby to improve fuel efficiency and cost performance.



Comparison of sizes with the already available product GA-558RN/LN





## Motors for peripheral parts of engines RS-4F5WA

With its improved heat and vibration resistance, the RS-4F5WA is suitable for operating in the harsh operating environment around automobile engines. This product helps to improve fuel efficiency and reduce toxic substances in exhaust gases when it is used in air intakes, exhaust valves, cooling water valves of engines, or used for electronic control such as in turbo charger actuators.

[Features of the product]

### 1. Improved heat resistance

The use of heat-resistant materials makes the product usable in the harsh thermal environment (-40°C to +150°C) around engines.

### 2. Improved vibration resistance

Durability of individual parts has been improved to achieve a vibration resistance of 40G in **sinusoidal vibration testing\***.

### 3. Satisfies electric noise standards

The structure in which elements such as choke coils and capacitors can be contained is used to satisfy electric noise standards.

**\* A test to apply periodic vibration to a product to assess degradation in performance and mechanical weaknesses**

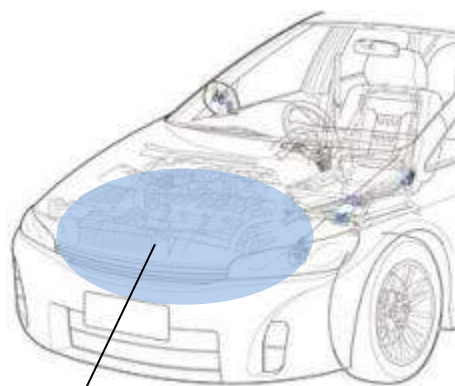


Output shaft: End bell side



Output shaft: Housing side

Size: 28.9 mm in diameter and 37.8 mm in length  
Weight: About 98 g



For peripheral parts of engines



## Motors for power seats RZ-46BWA

RZ-46BWA reflects our pursuit for smaller size and lighter weight in designs which are our strengths. The optimized magnetic circuit has realized smaller size and higher torque using a ferrite magnet, rather than a neodymium magnet, a “rare earth”. This product reduces the weight of an automobile and thereby helps to improve fuel efficiency.



Size: 34.0 mm in diameter and 82.1 mm in length  
Weight: About 260 g



For reclining

For halting

For tilting

[Features of the product]

### 1. Neodymium-free

The pursuit of an optimal design for a magnetic circuit has realized a smaller size and higher torque using a ferrite magnet.

### 2. Compatible with sensor-less positioning

This product is compatible with sensor-less positioning which detects and controls motor rotation angles without using a rotation sensor.

(A rotation sensor can also be installed as an option.)

### 3. Satisfies the EMS(\*1) standard

Satisfies **CISPR 25(\*2) CLASS 3** which is required for automobile components.

**\*1. Electromagnetic Compatibility: Durability with which electromagnetic waves emitted from an electronic device do not affect the operation of other devices, and an electronic device operates without any problem when it is externally affected by an electromagnetic wave**

**\*2. Recommended limits for interfering waves and measurement methods designated by the CISPR (International Special Committee on Radio Interference)**





## Motors for copy machines and multi-function printers (MFP) ID-529XW, ID-549XW

We are responding to the needs for smaller size, lighter weight, and better energy efficiency in the recent market of copy machines and multi-function printers (MFP\*1) by replacing stepping motors with the “ID series,” a lineup of inner-rotor brushless motors.

[Features of the product]

1. Higher energy efficiency, smaller size, and lighter weight  
Compared to a stepping motor with a similar output (\*2), the energy consumption is reduced (\*3), the volume is reduced by about 18%, and the weight is reduced by about 37%.
2. Built-in drive circuit and encoder  
This product enables high-precision control with the built-in commutation circuit for driving motors and the encoder element for detecting rotation speed and position.
3. Accurate speed tracking  
Our original rotor structure reduces inertia and torque ripple(\*4). This product achieved better speed tracking than stepping motors.
4. No resonance or stepping out  
This product has no “resonance in the low-speed range” or “stepping out in the high-speed range,” which are characteristic features of the stepping motor, and realizes high reliability in a wide range of speeds.
5. No use of neodymium magnet  
The market price and supply of neodymium magnets are unstable; thus, this product uses no neodymium magnet.



Left: ID-549XW  
Size: 42.0 mm in diameter and 50.0 mm in length  
Weight: About 215 g  
Right: ID-529XW  
Size: 42.0 mm in diameter and 39.0 mm in length  
Weight: About 1,408 g

- \*1: Multi-function printer (a device with multiple functions including copy machine, printer, scanner, and facsimile)
- \*2: A comparison of ID-549XW with a two-phase HB-type stepping motor (42 mm by 42 mm and 48 mm in length) manufactured by another company
- \*3: Based on the original measurement standard of Mabuchi
- \*4: The variation in the periodic torque generated while the motor makes one turn

### Automatic document feeder (ADF)

- A device which continuously feeds documents to a document rack (the scanner section)

### Automatic paper delivering device

- A device which delivers printed paper to a paper output tray

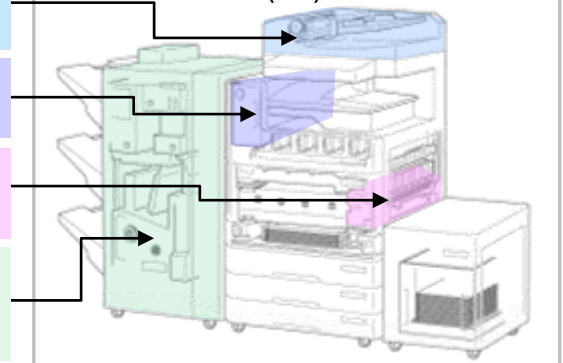
### Automatic paper feeder

- A device which takes paper from a paper supply tray and sets it into a printing position

### Automatic finisher

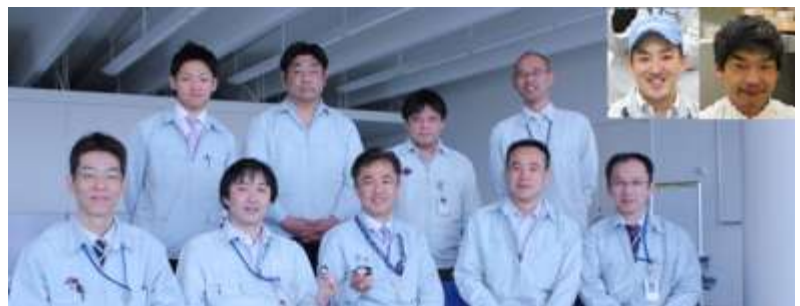
- A device which performs post-processing of printed paper, such as stapling and punching holes

### Image of a copy machine and multi-function printer (MFP)



### Ask an assigned personnel!

The market has a strong need for better environmental performances. To deliver the ID series to many customers, staff in product development, production management, quality assurance, sales, and production bases are working as one team and developing and selling products together. We are committed to the continued production of great products.





**Corporate Governance**

**Compliance**

**Risk Management**

**Support for Manufacturing / Education**

**Supporting Local Communities**

**Creating Lively Workplaces**



## **Social Report**

The Mabuchi Group is implementing global activities in order to contribute to local communities. We are satisfying our responsibilities as members of society by effectively using available resources to not only build a stronger society but make it sustainable as well.

## Social Report

# Corporate Governance

The Mabuchi Group recognizes that the fulfillment of the mission stated in our Management Principle: “Contributing to international society and continuously increasing our contribution” through our small DC motor business, forms the very basis of our existence. With this concept, we believe that the strengthening of corporate governance is an essential process of business. We are thus building a transparent governance system.

### Basic Approach to Corporate Governance

- (i) To clearly separate management decision-making and efficient business execution, as well as clarifying the scope of accountability.
- (ii) To build and operate a sound internal control system, namely, to effectively work the internal control system and the management supervision system.
- (iii) To appoint a suitable number of independent corporate officers whose interests do not conflict with those of general shareholders to ensure the objectivity and neutrality of management supervision functions.
- (iv) To foster a corporate culture in which all Group employees recognize and share the understanding that the practices of corporate ethics and compliance support the organization’s social impartiality and are fundamental to living up to the trust and expectations of all stakeholders.
- (v) To disclose corporate information to stakeholders such as shareholders in an appropriate, fair, timely and clear manner to ensure accountability through the Board of Directors, the Audit & Supervisory Board and other bodies.

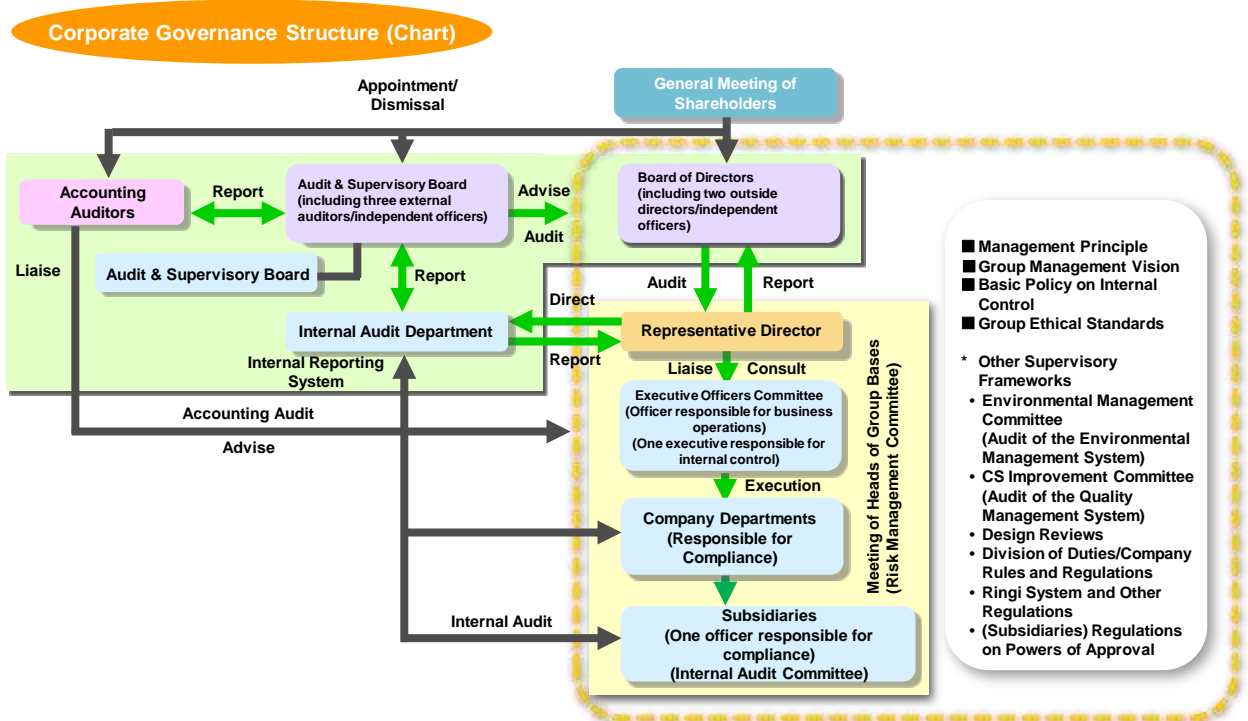
We will enrich various functions to ensure that these elements are duly implemented.

### Establishment of a Structure and a System

The Mabuchi Group employs a system of corporate auditors in which corporate bodies (including independent corporate officers), accounting auditors, and other organizations stipulated by the Companies Act, fulfill their respective legal functions. In addition to these organizations, Mabuchi has independently established the Executive Officers Committee, Internal Audit Department (internal audit division) and other organizations related to business execution and internal control. With the participation of these organizations, we have established and are operating a Group-wide governance structure and system.

At each of our overseas bases, we also conduct internal control through corporate bodies whose existence is required by the laws of the respective countries and through our internal organizations. Through the Mabuchi Group Management Vision, we also share our corporate culture and values globally, and are striving to improve our internal control functions throughout the Group by holding meetings for the management of overseas bases, holding Group-wide meetings, and having the Internal Audit Department conduct operational audits on overseas bases.

Having established the Basic Policy on Internal Control, we are working to strengthen and enhance our risk management and compliance system.



## Social Report

# Compliance

Legal compliance and the maintenance of corporate ethics are social obligations of companies and also the foundation for a company to continue operating and grow. We are strengthening the compliance system so that individual employees of the Mabuchi Group understand and comply with this concept.

## Mabuchi Motor Ethical Standard

To achieve our Management Principle, “Contributing to international society and continuously increasing our contribution,” we consider it essential to observe laws, ordinances, and regulations in each country and region and to conduct business activities in accordance with corporate ethics required by society.

For that purpose, we have published a pamphlet called “Mabuchi Motor Ethical Standard” detailing the criteria for our conduct and judgments and distributed it to all directors and employees of the entire Mabuchi group. We update the ethical standard pamphlet occasionally to adapt to the business environment that changes with the times.

We have developed rules and procedures for the particularly important items in the ethical standard, and have been providing education and training to employees at various stages to familiarize them with those items.

We have also held seminars for people in relevant positions at all production and sales bases in China and Asia to enhance employee awareness about compliance. A particular focus was placed on familiarizing employees with Mabuchi’s management policy of valuing compliance and the “Mabuchi Motor Ethical Standard.”

To further strengthen and improve the compliance system, the position of the director responsible for compliance was established at all Mabuchi Group bases in May 2011 with the approval of the board of directors of the Head Office. The director responsible for compliance at each base supervises compliance activities of that base under the overall control of the director responsible for internal control at the Head Office. They take a leading role in strengthening internal control and promoting continuous and autonomous compliance activities at each base.

In 2012, the legal check system concerning the Mabuchi Motor Ethical Standard was established at all bases in order to make timely responses to the revisions of laws.

Also, to continuously rectify and improve inadequate points related to compliance activities, the internal audit department of the Head Office conducts periodical and non-periodical audits on all Mabuchi Group bases, including overseas bases.

## Ethical Standard Hotline

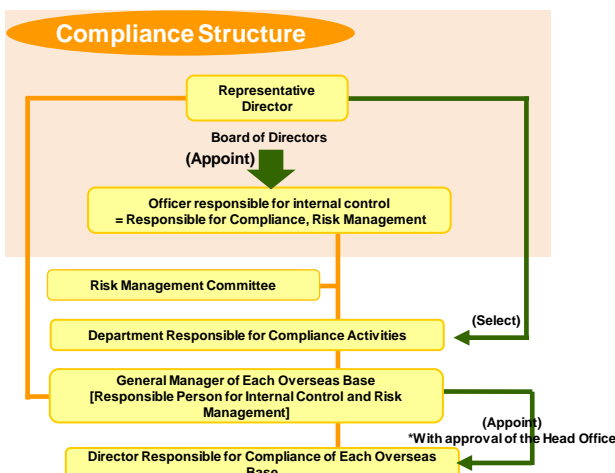
We have set up the Ethical Standard Hotline in the company to allow all employees to directly inform or consult with the internal audit department about compliance-related information under strict anonymity without using ordinary communication routes (senior managers or existing contact points of each division). We have also delivered a top management message to all directors and employees promising that the company will never allow those who have consulted with us to be treated disadvantageously because of their consultation. This holds true regardless of whether or not they used the hotline, and is in accordance with the Whistleblower Protection Act.

Our company is always striving to conduct honest and fair business with our suppliers and to build a relationship of trust with them. To address the current social situation in which social misconduct still occurs frequently, we extended the operational range of the Ethical Standard Hotline to some of our suppliers in addition to Mabuchi employees beginning in 2008, with a view to prevent problems in advance and strengthen the misconduct prevention system.

### [Basic Policy of Ethical Standard (Outline)]



1. All the directors and employees of the Mabuchi Group will put more priority on observing laws, ordinances and rules in the countries and regions where our companies are located, as well as international rules, than on the profits and the work of our companies.
2. We will strictly refrain from conduct that goes against social ethics by fully recognizing our responsibilities to various stakeholders, including shareholders, investors, and local communities.
3. We will clearly describe particularly important items among laws, regulations and social ethics in such documents as in-house regulations and publicize them widely. All the directors and employees will observe those items sincerely.



## Social Report

# Risk Management

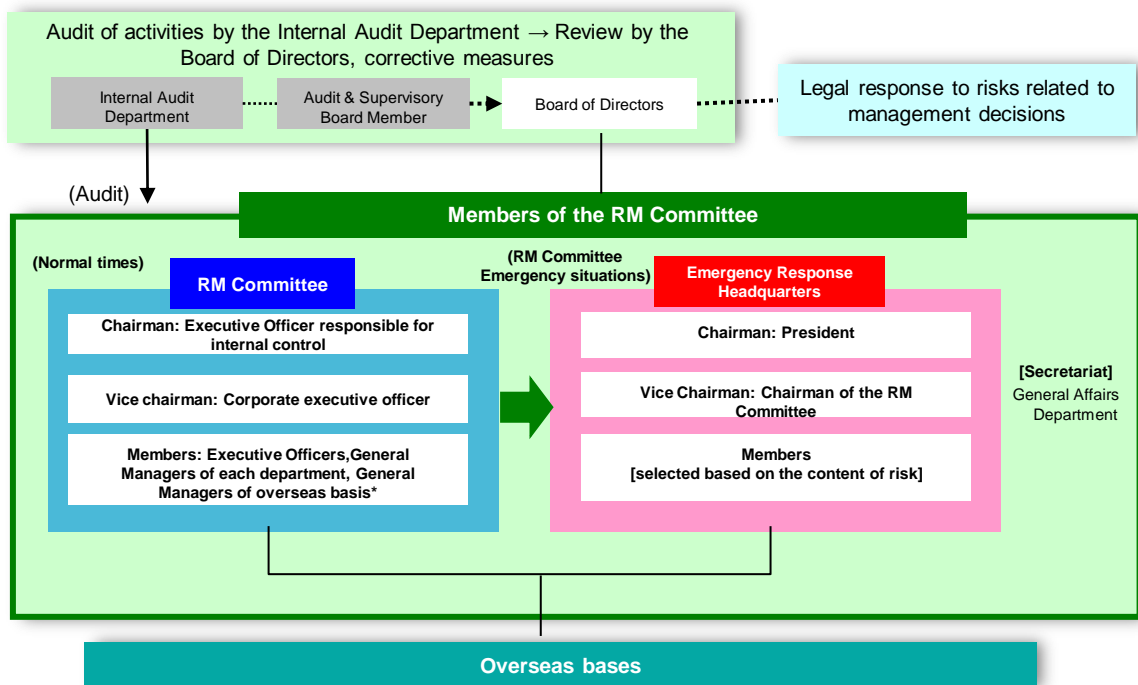
The Mabuchi Group is working on enriching and strengthening risk management for global business activities in order to ensure that the company will be on a long-lasting track for growth, while reducing and minimizing various risks inherent in diversifying business activities.



## Risk Management System

We established the Risk Management Committee to prevent risks from occurring and to minimize damage in the event that a risk has occurred. It is a system that enables us to take the most appropriate response as the entire Mabuchi Group. We have also prepared a response system, a response policy and various manuals for times of emergency on the basis of the risk management system. Risks specific to the work of each department are managed by the Mabuchi Group's objectives management system and responses to those risks are taken in each department under rigorous control and with the approval of top management.

### Structure of the Risk Management (RM) Committee



\* General Managers of overseas bases are part-time members (Information necessary for RM is shared on an as-needed basis.)

### Expected risks

[External factors]  
Natural disasters, social crimes, international and political situations, market liquidity risks such as interest rates, currencies, and prices of materials, etc.

[Internal factors]  
Product quality and safety, compliance, information communication system, intellectual property rights, labor accident, facility accident, environment, labor issues, human rights, rumors, suppliers, distributions, M&A, etc.

### Responses of the RM Committee

Categorized and specified into  
(i) Securing lives (safety) of people  
(ii) Compliance  
(iii) Information security  
(iv) Production and supply shutdown

Leader sections are specified for these risks to implement risk management activities as the entire group while cooperating with the management section and related executive employees.

## Disaster Response Manuals and Training

We prepared and distributed the “Emergency Response Manual for Employees in Case of a Disaster” and “Emergency Response Cards for Large-scale Disasters,” in addition to the “Initial Response and Instructions Manual for Managers.” We also introduced the “SECOM Centralized Safety Confirmation System (for all employees).”

Furthermore, a response manual was prepared for each department that plays an important role in the event of a disaster, such as the Human Resources Department, General Affairs Department (including the entrusted provider of building maintenance service), and Information Systems Department, in addition to the response manual for the directors (establishment and operation of the Emergency Response Headquarters).

We also educate our personnel about disaster prevention and carry out various disaster drills (drills for evacuation, reporting, fire extinguishing, disaster relief, safety confirmation, and a safe return to home) at least once a year so that employees can calmly take the appropriate action in the event of a disaster.

In addition, we keep in stock disaster supplies such as protective items, equipment, food and drinks, and daily necessities to ensure safety. We also accept employees in the company who are unable to return home. The Head Office can secure a large amount of drinking water even when the water supply is disrupted because we use groundwater as our regular drinking water. We are now preparing to conclude a water supply agreement with the Matsudo municipal government so that we can provide drinking water to the affected people in the community in the event of a disaster.



Emergency Evacuation Training (Head Office)



Emergency aid training with instructions from the fire station (Head Office)



Emergency Response Cards for Large-scale Disasters



Fire extinction exercise (Yingtan Mabuchi)



Emergency aid training (Taiwan Mabuchi)

### Stockpile of Disaster Supplies and Management (extract)

- Stockpile food, drinks and water for toilets sufficient for three days in case employees are unable to return home.
- Keep an emergency power generator and fuel (sufficient for 24 hours) necessary for the operation of the Emergency Response Headquarters and the protection of the computer system as a way to be prepared for a power outage.
- Set up two priority telephone lines in the Head Office building.
- Take measures to prevent the falling of equipment, apparatus, and furniture in cooperation with the Safety and Hygiene Committee.
- Keep in stock equipment and tools that can be used to recover and urgently repair facilities, apparatus, and furniture and to support the affected employees and local communities.
- Provide the necessary helmets for emergency evacuation and drinking water to be distributed to employees who head home.
- Provide PHS for emergency uses as a means of communication during a power outage.



## Information Security Policy

We consider it one of our corporate social responsibilities to manage our information assets and information security adequately and to prevent the leak, falsification, loss, and theft of information. Based on this concept, all the employees are deepening their understanding on the necessity and responsibility of information security to ensure a high level of information security.

## Privacy Policy

Recognizing that it is our important obligation to handle and protect information that can be used to identify individuals (hereinafter referred to as “personal information”) adequately, we will strive to protect personal information based on policies.

## Social Report

# Support for Manufacturing / Education

Mabuchi aims to contribute to the development of society by extending various types of support to local communities and international society. This is an effort in line with our management principle “Contributing to international society and continuously increasing our contribution.” As one such activity, we provide educational support to the young people who will lead the next generation to help them grow up surrounded by the joy of science and manufacturing.



## Co-sponsoring Robot Contests

Mabuchi has been co-sponsoring the National Technical College Robot Contest and the ABU Robot Contest since 2002 and the College Robot Contest since 2004 by providing motors and funds for them. We support these events in the hope that we can help to foster future engineers and develop science and technology.



ABU Robot Contest 2014 (Pune, India)



National Technical College Robot Contest 2014

College Robot Contest 2014

## Providing Motors

Support for National Technical College Robot Contest - approx. 19,200 motors in total



RS-555VC with gear head (upper) JC/LC-578VA RS-385PH with gear head (lower), etc.

## We are teaching fun aspects of science to children.

### Visiting classes

We have been sending our employees to elementary schools in the Head Office area (Matsudo City) as science instructors every year since 2008.



### Exhibition and Support for Events at the Science Museum

Mabuchi has been presenting a permanent exhibition at the Science Museum (Chiyoda-ku, Tokyo) since 1983 to support scientific education for young people. Displays include an explanation on the mechanism of motors, various motors used in our daily lives, and handicrafts powered by a motor. Also, we have been holding science experiment classes on such topics as the principle of a motor's rotation in cooperation with the museum since 2009.



## Enjoying manufacturing with children!

### Summer Vacation Handicraft Class

We hold the “summer vacation handicraft class for parents and children” every year for children (fourth through sixth graders) living in the area around the Head Office (Matsudo City). The total number of students who have participated in this class exceeded 1,000 in the class in 2014. We are going to continue this handicraft class so that more students can enjoy the pleasure of creating something.

Besides the period of the summer vacation, we are holding handicraft events in Chiba Museum of Science and Industry and Shizuoka Hobby Show for children to enjoy wooden crafts.

Handicraft event at Chiba Museum of Science and Industry



Summer Vacation Handicraft Class taught by our employees  
One assistant instructor is assigned to each group



Handicraft event at Shizuoka Hobby Show (trial runs of handicrafts that children created and painted)

### Workplace Experience and Observation

The Head Office regularly accepts pupils from elementary schools in the community to cooperate in their career education at school. We also received members of a social observation tour consisting of students of Nagareyama High School, a Chiba prefectural school for students with special needs, and helped them feel familiar with the working environment in 2014.

Overseas bases are also inviting local students to observe workplaces.



Observation of the Head Office



Observation by local elementary school students at Yingtan Mabuchi

### Internship Program

We hold an internship program for college students to provide them with an opportunity to deepen their understanding of Mabuchi's policy through actual work.

In 2014, Head Office and Dongguan Mabuchi accepted interns who were students in technical colleges, graduate schools, and college students from the U.S.



(Head Office)



(Dongguan Mabuchi)

### Support for education at overseas bases

Dalian Mabuchi and Daojiao Mabuchi are providing educational support such as constructing school buildings and providing scholarships, donating to educational organizations, and donating books and school supplies. This activity has been commended by the local government more than once. In 2014, Dalian Mabuchi won the “Most Beautiful Wish Project Organization” from a government agency for the long-term support provided for education.



Donation of books and school supplies to elementary schools which needed them (Dalian Mabuchi)



Top: Donation of a PC room at a middle school  
Bottom: Donation of school supplies to elementary school children (Daojiao Mabuchi)





## Social Report

# Supporting Local Communities

Mabuchi has actively been conducting various activities in each community, including an activity to protect the environment and social and welfare activities.

### The Head Office is aiming to coexist with local communities.

When the Head Office building was being constructed, the gentle waterscape and field called the “Bio Garden” was built in the spacious front yard of the premises to convey one of the concepts of “co-existence with the local community.” Vegetation management is still continuing today, ten years after the construction of the building. Such management helps the building blend in with the region and improves the regional environment by rebuilding vegetation that is unique to the region for biodiversity and eliminating alien species.

Wild birds are also visiting Bio Garden.



Received the City of Matsudo Landscape Award in 2013 (Head Office)

### We are actively engaging in tree-planting, nature beautification, and cleanup activities in overseas bases as well.



Cleanup activity (Dongguan Mabuchi)



Town cleanup around factories (top: Dalian Mabuchi, bottom: Yingtan Mabuchi)



Tree-planting activity (Ludong Mabuchi)



## Supporting Local Communities

Dongguan Mabuchi is continuing to donate clothes that employees collected for people in need.



Daojiao Mabuchi dispatched 65 employees to the “2014 Gourmet Festival” held in the region to energize the city of Dongguan. The dispatched employees helped run the festival.



## Blood Donation

Mabuchi employees, including those in the Head Office are actively cooperating in donating blood as a Group-wide activity.



### Social welfare activity

**The Mabuchi Group is interacting with elderly people and children and supporting people with illnesses.**

We regularly visit children’s homes and elderly care homes to extend a helping hand.



Left: Elderly care home, Right: Visit to a home for children with disabilities (Vietnam Mabuchi)



Support for people with illness (Dongguan Mabuchi)

## Social Report

# Creating Lively Workplaces

The key to our company is “to position people as the most important business resource and effectively utilize them through work and nurture people who are useful for society.” We are also striving to create a stimulating work environment at every workplace, including overseas bases, by respecting the basic rights of employees and encouraging them to pursue self-development and self-fulfillment individually.



### Personnel Performance Evaluation System and Self-assessment System

Mabuchi’s personnel evaluation system is aimed at ensuring the mutual growth of the company and employees by identifying the contributions of each employee who plays a wide variety of roles in the company. We use the system not only as a management tool but also as a tool for human resources development. In addition, we consider that the right person in the right place and the creation of a positive work atmosphere are very important in bringing out the best in each of our employees and making the best use of them. With this in mind, we have employees periodically carry out self-assessments to grasp their awareness of work and use the results to achieve these elements.



### Employee award system

The Mabuchi Group has an award system to give certificates in the anniversary ceremony every year to long-time employees (30, 20, and 10 years in employment), employees who contributed greatly to the company, employees who exhibited honorable behavior, and employees who contributed to regional communities. All employees of the Mabuchi Group are eligible for receiving this award. The President Award in 2014 was given to Mabuchi Motor America and the employees in the Head Office.



### Work-life Balance

We are striving to create an environment in which employees can lead a flexible life at various stages of their lives, such as child-raising, middle or older-aged stages, both at home and in the community while continuing to work with a sense of fulfillment at the company.

We are promoting family-friendly policies such as setting a longer childcare leave than legally designated lengths and starting a short-work-hour system for employees raising small children. We are also working to build an employee-friendly work environment through active participation in Chiba Prefecture’s “Lively Employees! Energetic Company Declaration” program.

On March 26, 2014, the Chiba Labor Bureau recognized the company as a “Complying Business” under the Act on Advancement of Measures to Support Raising Next-Generation Children. The company received the next-generation certificate symbol, “Kurumin.”



To build an employee-friendly environment

- Parental leave (three years) • Nursing leave (one year)
- Support for self-improvement during nursing leave and parental leave
- Leave for childbirth by spouse: Acquisition rate 100%
- Low-interest loans for fertility treatment
- Discount coupons for babysitting services
- Short working hours and exemption from overtime work for parental and nursing leave
- Encouragement for employees to take paid leave
- Enrichment of welfare facilities, etc.



### Promoting Employment of Persons with Disabilities

We are promoting the employment of persons with disabilities aimed at realizing a society in which they can work based on their ability and aptitude and lead an independent life in the community in the same way as others.

Presently, the ratio of persons with disabilities at Dalian Mabuchi is higher than the target rate designated by China’s employment ordinance. We will continue to improve the work environment to enable each of them to work comfortably by providing measures that address their needs during work and at other times.

The ratio of the employment of people with disabilities in our company is higher than the legally designated employment ratio as specified in the Act on Employment Promotion etc. of Persons with Disabilities.



Workplace that is friendly to people with disabilities (Dalian Mabuchi)

## Overseas Bases Personnel Exchange System

We have been promoting the exchange of personnel since 2009 to create unity as the entire Mabuchi Group, build a cooperation system, share information, and improve Mabuchi's overall capability through the increased opportunities. Specifically, staff members of overseas bases are provided with more opportunities to go on business trips to the Head Office. We will continue to enhance the system while implementing it on an ongoing basis.



Dongguan Mabuchi employee on long-term business trip (Head Office)

## Training System for Ability Development

Mabuchi has established an education (training) system to provide employees with an opportunity to continue learning with a self-regulating mindset.

Therefore, we are providing training and lectures based on various viewpoints by training for different levels such as new employees, third-year employees, young leaders, and management levels, as well as business strategy lectures and lectures to effectively utilize and communicate the experiences of employees.



Holding various types of training (Head Office)

## Human resources development at overseas bases

Representatives of individual bases of the Mabuchi Group are gathering every year and holding a work skill competition. Employees who did well in the work skill competitions receive awards. Similar events are held at individual bases, and employees are improving their skills through competitions.

Dalian Mabuchi also has a system for awarding a scholarship to employees who graduated from a junior college or a college through a home study program as a way to improve the human resources development.



## Educational Support System and Qualification Incentive System

### ◇Support System for English Learning

The Mabuchi Group is implementing the following programs to build a company-wide environment for employees to learn English

so that employees can contribute to international societies.

- Providing opportunities for people to take the TOEIC test
- Holding TOEIC classes
- Running a short-term overseas study program
- Implementing a trainee system

We are also aiming to improve global communication abilities by holding English communication classes with interns from overseas and holding classes for people to learn technical knowledge.



Programs held by interns from overseas

Top: English communication class

Bottom: "Basics of English Contracts" briefing session(Head Office)



### ◇Qualification Incentive System

We are promoting employees' self-development by establishing the Qualification Incentive System with a view to create a self-learning atmosphere in the company and encourage employees to acquire a wide range of knowledge useful for business operations. Also, the Mabuchi Business School (home study system) is held twice a year, and the cost of the education is reimbursed to those who complete the program in order to create an environment where more employees can actively learn on their own.

### ◇Self-Access Learning (SAL) Room

A room was established for employees to learn foreign languages and study for certificate tests based on their levels, as well as for group discussions. Computers, a wireless Internet connection, educational software, books,

English newspapers and magazines are provided in the room for employees to use to improve themselves.



Self-Access Learning (SAL) Room (Head Office)

## Various Events for Employees and Families

We hold a variety of events every year to enhance communication and build a sense of unity and company loyalty among all employees.



Above: Garden party for the enjoyment of families of employees  
Below: Bowling tournament participated in by departments (Head Office)



## Keeping a Health Body and Mind

We believe that employees' healthy bodies and minds are the base of a good social life and the source of Mabuchi's vitality. Therefore, we started a mental health program at the Head Office more than 20 years ago that includes mental health checks, care given by in-house counselors, and mental health seminars.

Also, the company pays a portion of the expense when employees who are 35 years or older undergo a complete medical check. The company also provides health counseling by industrial doctors after the medical check.

Overseas bases also strive to keep employees' bodies and minds healthy by implementing measures suitable for the conditions of each country or region.



Health lecture and medical checkup for women (Jiangsu Mabuchi)

### Employee participation event at overseas bases

Each overseas base also holds many events regularly, including sports festivals, company trips, and cultural festivals.



Basketball game (Jiangxi Mabuchi)



Employee trip (left: Mabuchi Motor Korea, right: Shanghai)



Participating in the Hsinchu County Employee Sports Game (Taiwan Mabuchi)



Participating in a marathon race (Mabuchi Motor Europe)



Playing badminton for health (Shenzhen Mabuchi)



Slowest bicycle race (Vietnam Mabuchi)



**Environmental Management**

**Green Procurement**

**Eco-Friendly Business Administration**

**Environmental Communication**

**Environmental Risk Management**

**Report of Environmental Data**



## **Environmental Report**

At the Mabuchi Group, we carry out our corporate activities without sacrificing the environment or human health. We also strive for continuous improvement through our environmental management system, and aim at achieving a sustainable society.

## Environmental Report

# Environmental Management

We at Mabuchi began to introduce the “Environmental Management System ISO 14001” in 1999 and all our bases including the Head Office have already acquired this certification. In addition, we carry out environmental management actively by setting an individual environmental target for the entire Mabuchi Group, the Head Office, each overseas base and each department by managing them rigorously through the plan-do-check-act (PDCA) cycle. We will continue to implement a high level of environmental conservation activities while improving the environmental management system on an ongoing basis.



## Environmental Management System

The environmental management system of the entire Mabuchi Group is supervised by the director who holds the position of the Environmental Management Representative. The Environmental Management Committee is established at the Head Office. 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 and the Energy Saving Task Force under the Environmental Management Committee. Those task forces propose measures in each specialized area and promote environmental preservation activities.



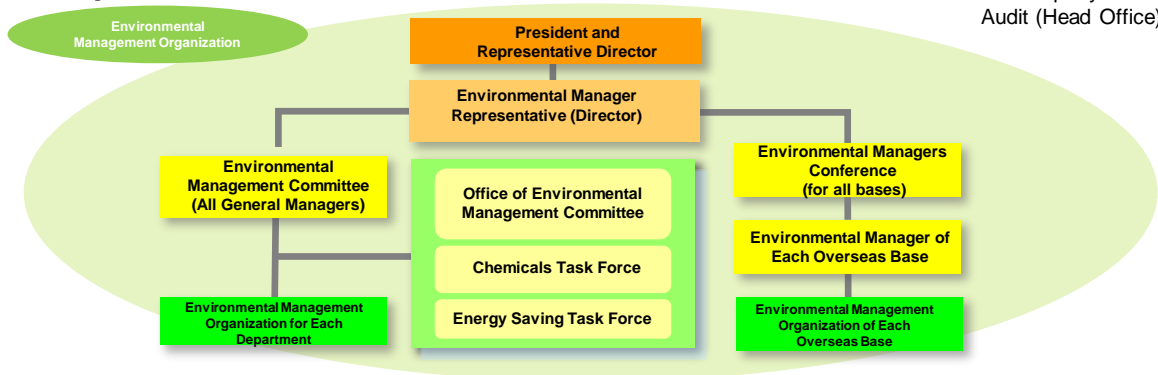
## Environmental Audits

Conformance of our environmental management system to the ISO requirements and the current effective management status of the system are audited by an external certification body (third party) and the internal Audit Department every year.

Through these audits, we maintain and improve the level of our environmental management continuously.



The 2014 Third-party Environmental Audit (Head Office)



## Mabuchi Group Environmental Policy

We carry out our corporate activities without sacrificing the environment or human health. We also strive for continuous improvement through our environmental management system, and aim at achieving a sustainable society.

1. We observe environmental related laws and regulations, and make diligent efforts to prevent pollution. We are always aware of the impact of our business activities on the environment, and manage the impact by establishing our own standards.
2. In order to reduce environmental impacts associated with our business activities, we focus on the following:
  - 2.1 In order to reduce CO<sub>2</sub> emissions and to effectively utilize limited resources, we actively work on energy saving, resource saving, recycling, and waste reduction.
  - 2.2 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.
  - 2.3 We perform “green procurement” activities using environmentally friendly parts and materials.
  - 2.4 Being aware that the protection of biodiversity is a significant corporate objective, we promote eco-friendly approaches.
3. In order to raise the environmental awareness of all our employees, we actively conduct environment-related educational activities.
4. We familiarize all of our employees with this environmental policy, and announce the policy to outside parties.

Established: September 27, 1998 Revised: March 28, 2013

Mabuchi Motor Co., Ltd.  
President and Representative Director

大越博雄  
Hiroo Okoshi

## Environmental Report

# Green Procurement

By setting our own special evaluation criteria in addition to laws, regulations, and customer requests, we at Mabuchi strictly control environmentally prohibited substances designated in those standards so that they will not be included in materials and parts of products that we procure from our suppliers. We also prioritize the use of materials and members with a lower environmental impact. We are also prioritizing purchases from suppliers certified with ISO14001, the environmental management standard.



## Promotion of Green Procurement

Our own environmental conservation efforts are not enough for developing products with a low environmental impact throughout their life cycle, starting from the extraction of material resources, production and processing, distribution and sales, consumption and uses and finally to disposal and recycling. Thus, we also evaluate the environmental efforts of our suppliers to reduce environmental impact and avoid environmental risks as a team.

We make it a rule that suppliers must follow the green procurement procedure shown in the flowchart below and submit documents certifying that environmentally prohibited substances are not contained in their parts and materials, in addition to an environmental activity survey sheet.

A green procurement explanatory meeting was held in Vietnam Mabuchi and Danang Mabuchi in 2014. We explained our management requirements on environmentally prohibited substances and asked participants to strictly observe our green procurement procedure to minimize risks. The participants further deepened their understanding on our green procurement system.

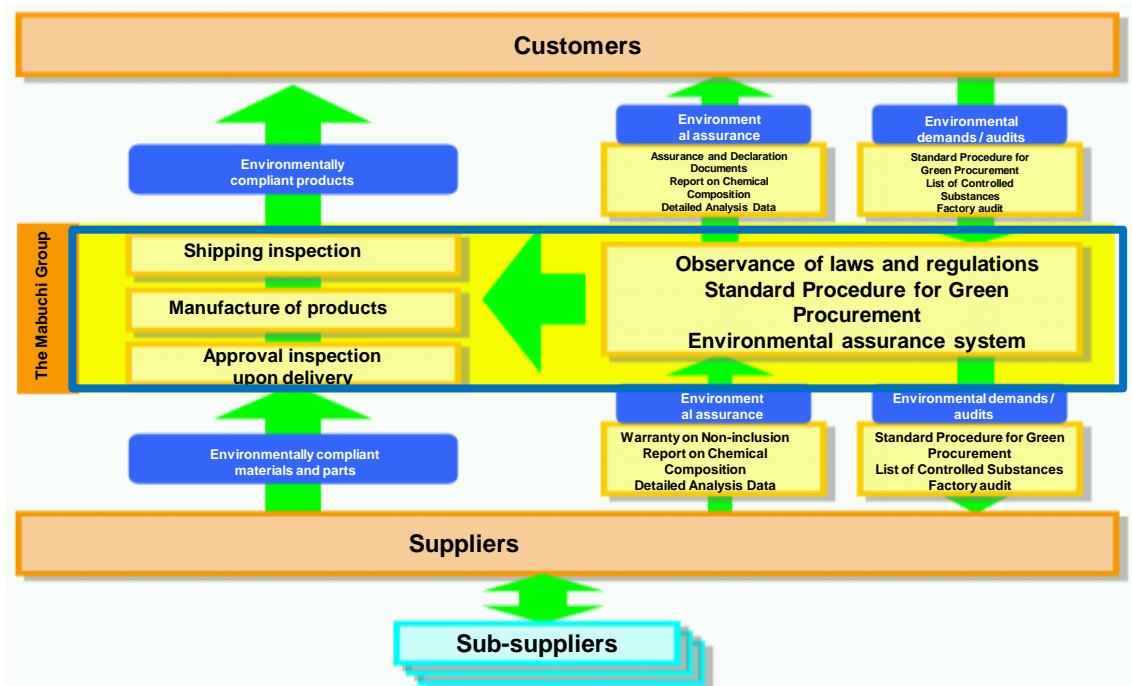
We are closely communicating with our suppliers on a daily basis and actively auditing uses and storage conditions of environmentally hazardous products. Thanks to these efforts, we have received no environmental complaints from our customers since the enactment of the 2006 RoHS Directive in Europe up to now.

We will continue to promote green procurement activities with our customers and suppliers.



The 2014 Explanatory meeting on green procurement (Vietnam Mabuchi)

### Green Procurement Flowchart





## Environmental Report

# Eco-Friendly Business Administration

We have been continuously taking a range of measures, improvements, and preventive measures to protect the global environment as a concerted effort of the entire Mabuchi Group, including overseas production bases. We are also doing this from the perspective of corporate administration.



## The government gave an award to Danang Mabuchi.

Danang Mabuchi was selected as one of the Top 30 Excellent Green Companies in Vietnam in 2014 and won the National Green Environment Award in recognition of the following efforts:

- 1) The company has an environmental policy.
- 2) The company is strictly controlling the use of environmentally hazardous substances in its factory administration.
- 3) The company is producing eco-friendly products.
- 4) The company is not violating environmental and other laws or regulations.

The Government of Vietnam created this award in 2013 to encourage companies around the country to practice environmental protection and use cutting-edge technology to protect the environment.



Award ceremony and certificate (Danang Mabuchi)

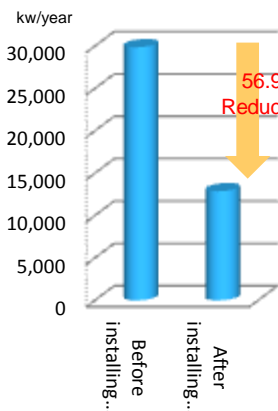


## LED lighting installation work at Head Office

After experiencing the power shortage during the 2011 Great East Japan Earthquake, the Head Office of Mabuchi Motor has been eliminating unnecessary use of lights in the Head Office building (see “Social and Environmental Report 2012” for details). We examined the technical progress of energy-efficient lighting devices. As a result, we are thinking about reducing energy consumption by using the minimum amount of illumination in the company to conserve energy by replacing lights with LED lights. We are thus planning to gradually return to the regular use of lights within the company.

A switch to LED lights started in the lobby floor and the common area on the ground level, the area that visitors and employees frequently use, in 2014. Lights in other areas will be gradually replaced with LED ones based on plans.

[Effect of replacing lights of Head Office with LED lights in 2014]



## Eco-friendly efforts during the construction of a new factory

We are also planning to use LED lights to conserve energy and conduct tree planting. We will also be using sanitary equipment for water conservation in Mexico Mabuchi which is under construction and is scheduled to be completed in 2015.



Completed image of Mexico Mabuchi



At the Mexico Mabuchi completion ceremony



## The use of environmentally friendly facilities

The Mabuchi Group is implementing environmentally friendly activities related to utility systems used in factories such as the use of chillers for large air conditioners which do not use lithium bromide, a coolant which may contaminate water, at Dalian Mabuchi and Wafangdian Mabuchi .



New chiller (Dalian and Wafangdian Mabuchi)

A public sewage treatment system has not been developed in the area of Wafangdian Mabuchi. Thus, the private sewage treatment system of the factory was also constructed at the same time as the construction of the factory to protect the water quality of rivers around the factory. The sewage treatment system was then renovated in 2014 to add treatment capacity which became insufficient due to the increased production and workers in the factory. The renovated sewage treatment system can treat up to 450 tons of sewage a day to a level which satisfies the sewage discharge standard of Liaoning Province, China. The plant is thereby helping to protect the environment of rivers and soil in the nearby area.



Sewage treatment system (Wafangdian Mabuchi)

## Improvement for eco-friendly processes

Daojiao Mabuchi changed the temperature setup of a cooling water heat exchanger in the settlement tank in its coating process, which reduced the operating hours of the system and energy consumption.

Production bases have been installing automated systems which reduce the need for a workforce, and the consumption of factory air has been increasing. These bases are individually working on making improvements to prevent the leakage of air. Individual bases are going to communicate with each other to introduce tools of factory air management to further reduce the consumption.

## Activity to replace lights with LED ones

Dalian Mabuchi is replacing fluorescent lights used in the factory with LED ones to reduce the amount of energy consumption. About 50% of the fluorescent lights in the factory were replaced with LED lights in 2014.



Replacement of fluorescent lights with LED ones (Dalian Mabuchi)

## Implementation of measures to protect the environment in a new factory building

In August 2014, Wafangdian Mabuchi shut down boilers used for heating in the factory to protect the global environment, especially the atmospheric environment, and installed a central heating system recommended by the local government. This reduced the use of coal that the factory was using as fuel by about 3,500 tons a year (in 2013) and cut back on the emission of soot and dust.



Boiler room before installing the central heating system (Wafangdian Mabuchi)



Inside the factory after installing the central heating system

**The plating wastewater treatment system became compatible with new standards, and the productivity of the system was also improved through the cooperation of Ludong Mabuchi and the Head Office.**

Ask an assigned personnel!  
We satisfied the stricter wastewater standards before other companies. We are going to work on innovating production technologies while further improving quality and productivity and remaining in compliance with environmental laws and regulations.



## Environmental Report

# Environmental Communication

Mabuchi provides wide-ranging information on its environmental policy and environmental management activities to parties both inside and outside the company through a variety of media. We hope our customers, employees and people at large will have a deeper understanding of our approach to environmental conservation and related activities through our environmental communication.

### Publication of Social & Environmental Report and Environmental Information on Our Website

We have been reporting the results of our social contribution and environmental conservation activities since 2001 by publishing the Environmental Report and putting it on our website (the report title was changed to the Social & Environmental Report in 2008).



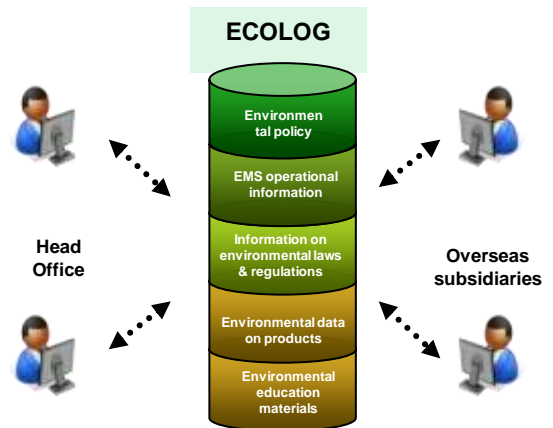
Information on social contribution and environmental activities on our website

### Environmental Communication to Communities

To share environmental information and to efficiently implement environmental conservation in the entire Group, the Environmental Managers Conference has been held every year since 2000 with the participation of environmental managers from the Head Office and overseas bases.

We have created a database called the ECOLOG on our intranet and put it into operation to allow personnel to share environmental information. Mabuchi Group employees around the world, including those at the Head Office, are sharing a variety of environmental information through this ECOLOG.

We also publish feature articles on environmental information in our newsletter to introduce the present status of Mabuchi's environmental responses and the latest environmental information, with a goal to increase the environmental awareness of employees.



Environmental Managers Conference (teleconference)

Environmental information posted in the employee dining hall (Head Office)



## Slogan and Poster Contest for Environmental Consideration

Winning works in 2014 displayed at the Head Office

To enhance the environmental awareness of employees, the Slogan and Poster Contest Promoting Environmental Consideration has been held annually since 2006 as a Group-wide event. In 2014, posters and slogans which were selected from 116 pieces submitted from 13 bases ,including the Head Office and overseas bases ,were posted in the dining hall of the Head Office. Employees are further increasing their environmental awareness through these events.

### ★Winning works in 2014

#### Slogan Category

- Chúng ta có nhiều màu da, có nhiều ngôn ngữ, có nhiều sắc tộc nhưng chúng ta có chung “1 trái đất.”  
Hãy bảo vệ của cái chung để bảo tồn những cái riêng đó.  
We all share the Earth regardless of differences in skin color, language, and race. Let us protect our common assets to protect the Earth.  
(Danang Mabuchi)
- 环保活动,从我做起,从小事做起,从现在做起  
I begin environmental activities by starting with small steps that I can take.  
(Daojiao Mabuchi)
- 金钱是一时的利益 环境是永恒资本  
Money is a temporary asset. The environment is an eternal asset.  
(Jiangsu Mabuchi)

#### Poster Category



“GREEN PRODUCTS to tell the story to children someday”  
(Daojiao Mabuchi)



“Nurture the buds of environmental awareness starting in Mabuchi Motor.”  
(Jiangxi Mabuchi)



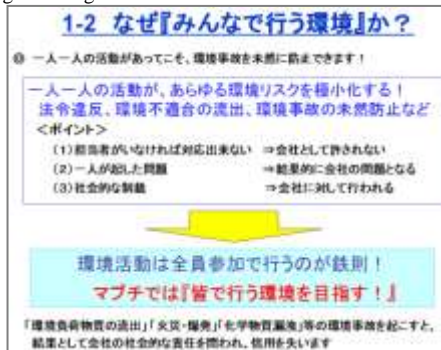
“Where did my house go?”  
(Yingtian Mabuchi)

# Environmental Risk Management

Mabuchi manages chemical substances stringently to prevent accidents (environmental ) that could have a serious impact on the environment. We also conduct emergency response education and drills regularly to quickly respond to emergencies.

## Environmental education

Mabuchi's environmental education and training system is organized according to the purposes and levels of employees. We provide education and training to improve their environmental awareness and to increase their speed in responding to emergencies.



Education on the handling of chemical substances for employees who handle them (Yingtan Mabuchi)

A part of the environmental education materials shared by all employees

## Emergency Response Drills

We conduct drills related to emergency responses and reporting more than once a year by projecting various scenarios appropriate for each location so that the occurrence and spread of environmental pollution can be prevented ,even in a disaster.



Emergency response drill to prevent the leak of oil from condensers (Head Office)



Drill to prevent leakage of chemical substances (Head Office)



Emergency response drill to deal with leaked chemicals (Ludong Mabuchi)



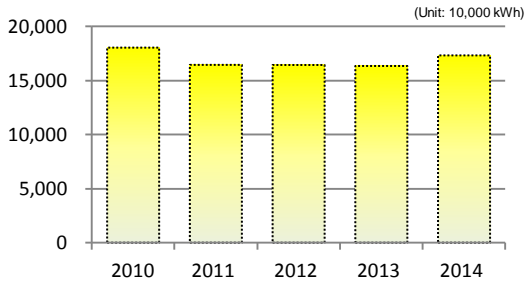
Pollution prevention drill based on an emergency scenario (Taiwan Mabuchi)

## Environmental Report

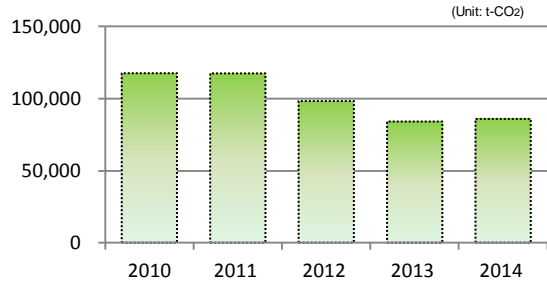
# Report of Environmental Data

\* This graph shows the results calculated from the data of Mabuchi Motor's Head Office and major overseas production bases.

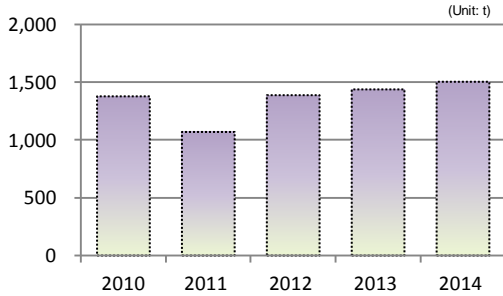
### Amount of electricity purchased



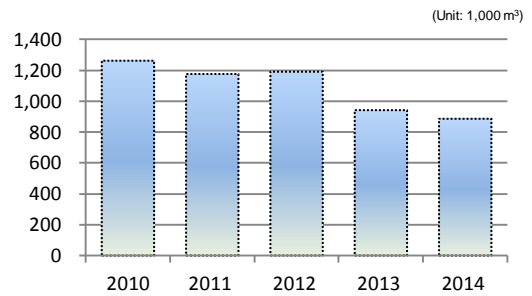
### Amount of CO<sub>2</sub> Emissions



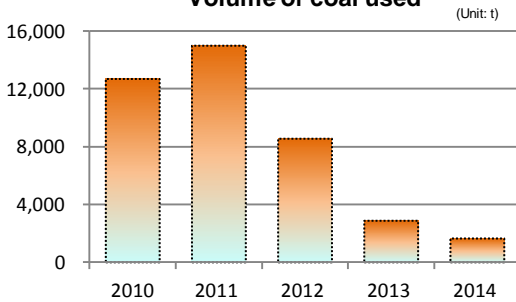
### Waste generated



### Water usage



### Volume of coal used



\*We are working to completely eliminate the use of coal. (Wafangdian Mabuchi is the only base that was using coal in fiscal 2014.)

	Unit	2010	2011	2012	2013	2014
Amount of electricity purchased	(10,000 kWh)	18,049	16,454	16,443	16,351	17,331
Amount of CO <sub>2</sub> emission	(t-CO <sub>2</sub> )	117,618	117,487	98,301	84,057	85,860
Waste generated	(t)	1,377	1,069	1,387	1,437	1,503
Water usage	(1,000 m <sup>3</sup> )	1,262	1,176	1,191	942	886
Volume of coal used	(t)	12,685	14,986	8,551	2,876	1,650



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