

MABUCHI MOTOR



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Editorial Policy for Environmental Report 2007

- This Report has been produced for the purpose of introducing the environmental conservation activities of MABUCHI MOTOR CO., LTD. and its overseas related companies (hereinafter, collectively "the Mabuchi Group") to as many people as possible and obtaining their understanding.
- This Report uses the "Environmental Reporting Guidelines (2007 version)" of the Ministry of the Environment as a reference.
- Explanations of technical and other terms have been included, as necessary, at the bottom of the respective pages.
- Danang Mabuchi, which started operations in August 2006, is not included in the scope of the environmental data described in this Report as it is now preparing for acquisition of ISO 14001 Environmental Management System certification.

Cover Photo

The cover photo shows sweet flag flowers in bloom at the Mabuchi Motor Head Office garden.

The garden creates an area full of greenery, where the water's edge is lined with beautiful aquatic plants and insects go about their lives in a natural habitat. This is a place where you can hear birdlife chirping, enjoy seasonal flowers and trees and truly feel the magnificent workings of nature.

Period and Scope of the Report

• Period: Fiscal 2006 (January 1, 2006 - December 31, 2006)

• Scope: Head Office and overseas related companies

* Remarks: "The Mabuchi Group" is used in this Report as a collective term for the Head Office and the following overseas related companies (as of the end of December 2006):

MABUCHI INDUSTRY CO., LTD. (Hong Kong Mabuchi *including Guangdong Mabuchi)
MABUCHI TAIWAN CO., LTD. (Taiwan Mabuchi)
MABUCHI MOTOR TAIWAN LTD. (Kaohsiung Mabuchi)

MABUCHI MOTOR DALIAN LTD. (Dalian Mabuchi *including Wafangdian Mabuchi) MABUCHI MOTOR (JIANGSU) CO., LTD. (Jiangsu Mabuchi)

MABUCHI MOTOR VIETNAM LTD. (Vietnam Mabuchi)
MABUCHI MOTOR DANANG LTD. (Danang Mabuchi)

 Activities covered: Environmental activities related to the design, manufacture and sales of motors and provision of services





Corporate Outline

Trade name: MABUCHI MOTOR CO., LTD.

Established: January 18, 1954

Field of Operations: Manufacture and sales of small

electric motors

Capital: 20,700 million yen

(as of December 31, 2006)

Employees: Head Office: Approximately 1,000

Mabuchi Group:

Approximately 45,000

(as of December 31, 2006)

President: Shinji Kamei Address: Head Office

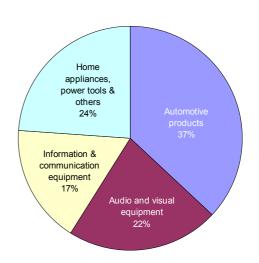
> 430 Matsuhidai, Matsudo-shi, Chiba-ken, 270-2280 Japan

TEL: +81-47-710-1111

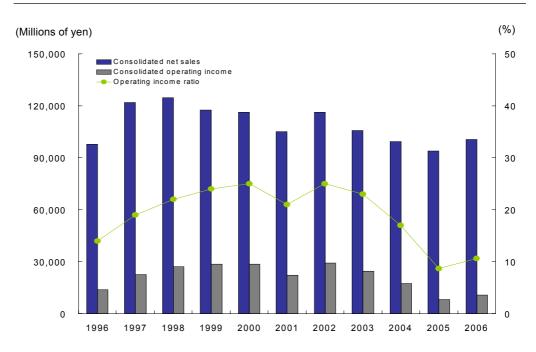
Technology Center: 280 Ryufukuji, Motono-son,

Inba-gun, Chiba-ken, 270-2393 Japan TEL: +81-47-710-1222

Sales by application (fiscal 2006)



Changes in consolidated net sales/ consolidated operating income/operating income ratio







Message from the President

Maintain the trust we have earned worldwide



Mabuchi has been in business now for 53 years, and the Mabuchi Group takes pride in the fact that, throughout this time, it has developed products that meet the public's needs and has been able to continue providing the world with value through the creation of employment opportunities and the transfer of technology as it seeks coexistence and co-prosperity with the international community. We are deeply grateful to our many customers who have found value in our products and who have maintained lasting relationships with us.

The Mabuchi Group regards corporate social responsibility (CSR) as both a company's commitment to society and its contribution to social issues through business activities. We are continually asking ourselves what we can promise to society and what must we change—and what we must not change—in our business activities to continue fulfilling our CSR into the future. We are also

asking our employees to understand that customers and others supporting us base their trust and assessment of the Mabuchi Group on the correct judgment and proper behavior of individual employees, and to modify their own behavior voluntarily in a positive direction.

Our Mabuchi motor products are widely used for a variety of purposes in day-to-day life, and they help underpin convenient and more comfortable living. These products have also sparked major changes in lifestyles by liberating a full range of machinery from wall sockets and long cords, offering immeasurable convenience and the pleasure of greater freedom. Even as the Company works to develop future products and to manufacture goods that satisfy these demands, it is also reducing the environmental impact generated by these activities in working toward harmonious coexistence with the global environment.

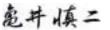
Of the environmental issues urgently needing to be addressed, the prevention of global warming is of top priority. Carbon dioxide and other greenhouse gases that cause global warming are generated by energy use, and considerable energy is required not only for using products but also for developing, producing and selling them. We will endeavor for greater efficiency to reduce the amount of energy directly used in production. We will also offer products with high conversion efficiency that operate with little energy, and will reduce energy use in material production, albeit indirectly, by reducing the sizes of our products.

Avoiding the use of toxic substances is another important approach to environmental protection. Our products, too, will eventually be discarded when they reach the end of their useful life. In 2006 we joined with our business partners to launch a system that keeps toxic substances out of our products so that they can be recycled or discarded without difficulty.

We are confident that the Mabuchi Motor Group is steadily attaining results in its efforts to fulfill its social responsibilities. Society's demands on companies are growing and changing day by day, and we are committed to meeting these. We believe that only companies that faithfully fulfill these social responsibilities will enjoy public acceptance and be able to continue as going concerns.

This report introduces the principal environmental activities of the Mabuchi Motor Group. Your understanding of our efforts and your frank opinions are greatly appreciated.

Shinji Kamei President and Representative Director Mabuchi Motor Co., Ltd.







Management Philosophy

—Consideration for the Environment

Mabuchi Motor's Basic Environmental Policy represents the entire Group's basic approach to environmental issues and embodies the Management Philosophy in the environmental management area.

Management Philosophy

Contributing to international society and ever-expanding our contribution

Management Guidelines

- 1. Create superior and reasonably priced products. Our hope is to help build a more satisfying and comfortable life for customers around the world who enjoy a life with products using our motors.
- 2. Transfer our technology and bring forth new opportunities for employment. We hope that our contribution can become a helping hand in leveling international economic disparities and stimulating global economic development.
- 3. By placing "people" as an important managerial resource, we strive to heighten individual potential through work, and to raise more productive citizens of society.
- 4. Conduct corporate activities that promote the preservation of our earth's environment and our own human health.

Basic Environmental Policy

- 1. We shall establish an environmental management system for taking business activities in consideration of the environment of the Earth, and continuously try to improve the system.
- 2. We will strictly observe legal regulations relating to environment and other requirements, and positively determine and control self-imposed regulations.
- 3. To make the best use of limited resources, we will positively make efforts in energy restriction, recycling and reduction in the amount of waste.
- 4. We will replace substances that cause a burden on the environment with substitutes.
- 5. We will positively conduct training and publicity activities to enhance the consciousness of the employees of environmental protection.
- 6. The Environment Policy will be penetrated to all employees and, if necessary, disclosed to the external parties concerned.

Established on September 27, 1998

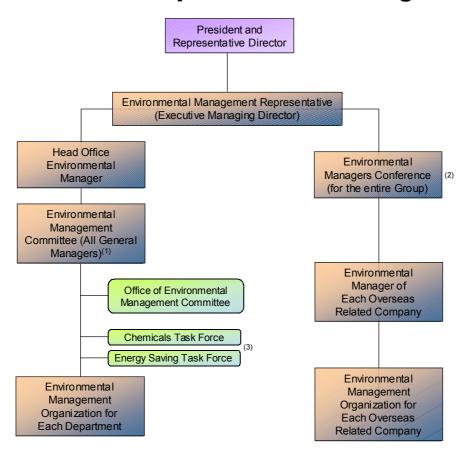




Environmental Management System (1)

Mabuchi Motor regards environmental management as one of the most important themes for corporate management and has established an environmental management organization system with the Executive Managing Director acting as the Group's chief environmental manager (Environmental Management Representative). Under this environmental organization, the entire Group's environmental management system is implemented and various environmental conservation activities are promoted.

Mabuchi Motor Group Environmental Organization



Notes 1. Environmental Management Committee

The Committee consists of environmental management committee members and discusses environmental issues concerning the entire Mabuchi Group, including Head Office and related companies.

2. Environmental Managers Conference

The members consist of environmental managers of Head Office and related companies. The Conference promotes the sharing of information on environmental issues and serves to increase the synergistic effects of environmental management across the Group.

3. Chemicals Task Force/ Energy Saving Task Force

Environmental Expert Task Forces are established as advisory bodies to the Environmental Management Committee.

The Task Forces conduct information gathering activities, research and study concerning specific environmental issues having an impact on Head Office and the entire Mabuchi Group and develop related draft policies and draft implementation plans, which are then brought before the Environmental Management Committee for consideration.





Environmental Management System (2)

■ Implementation of the Environmental Management System

In December 1999, Mabuchi Motor started activities to acquire ISO 14001 environmental management system certification and completed the acquisition of certification by 2001 for Head Office and all overseas manufacturing facilities. Since then, periodic external audits have been conducted in accordance with the requirements of the standards.

Danang Mabuchi, which started operations in August 2006, is now preparing for acquisition of ISO 14001 certification.

Furthermore, in October 2005, the organization was revised in order to integrate the environmental management system and the quality management system, and the Product Environmental Quality Assurance Group was newly estab-

lished in the Quality Assurance Department. The Product Environmental Quality Assurance Group, which functions as the Office of the Environmental Management Committee, also started activities in fiscal 2006 aiming at integrated certification of both systems, conducts certification and conducts periodical audits for the two systems at once). Total integrated certification of the environmental management system and the quality management system of the entire Group is planned to come into effect between 2007 and 2008.

In addition to the periodical audits conducted by external certification bodies, internal audits by overseas related companies as well as internal audits of overseas related companies by Head Office are con-

ducted. Internal audits by Head Office in fiscal 2006 were conducted focusing on the implementation of a system that prevents banned substances from being mixed into products.



Internal audit of Vietnam Mabuch conducted by Head Office

■ Enhancing Employees' Environmental Awareness

Mabuchi Motor periodically provides environmental education to employees of the Group as part of its environmental management system. Other various environmental events are also held in an effort to enhance environmental awareness of all employees of the Group. The "poster/photo contest promoting environmental consideration," which started in fiscal 2006 as a way to enhance the environmental awareness of the Group as a whole, was held for the second time. Many excellent works were sent to us during the period and all displayed deep consideration for the environment



Awards ceremony for the poster/photo contest promoting environmental consideration at Guangdong Mabuchi



Award winning work in the poster division



Award winning work in the photo division





Environmental Accounting Report (1)

■ Environmental Cost

For efficient and proper environmental investment, Mabuchi Motor introduced an environmental accounting system at Head Office and Jiangsu Mabuchi in fiscal 2003. The environmental accounting system was also implemented within this scope in fiscal 2006.

In the environmental management activities of Head Office and Jiangsu Mabuchi carried out in fiscal 2006, the amount of environmental investment totaled roughly 31 million yen, while environmental expenses totaled about 865 million yen for a total environment cost of approximately 896 million yen.

The level of environmental in-

vestment significantly decreased from the previous year, mainly due to the fact that only regular management and operation costs were recorded in fiscal 2006, while facilities had been reinforced at Head Office in fiscal 2005 in order to increase the capacity of the soil decontamination facilities.

■ Fiscal 2006 Environmental Cost

(Millions of ven)

(or you)								
Classification		Fiscal 2005		Fiscal 2006		Main Efforts		
		Amount of investment	Amount of expense	Amount of investment		(Fiscal 2006)		
Cost within usiness area	Pollution prevention cost	2.1	9.6	2.1	10.3	Oil leak prevention work for fuel tanks, installation of sound-proof walls (Jiangsu Mabuchi), maintenance of septic tanks and sewage management		
	Global environmental preservation cost	0.0	35.4	4.4	45.5	Introduction of hydrocarbon scrubbers, operation and maintenance of energy-saving equipment of office buildings, etc.		
Cost wil	Resources recycling cost	2.2	20.4	3.0	13.2	Recycling and proper disposal of waste and construction of facilities for utilizing rainwater		
	Subtotal	4.3	65.5	9.5	69.0			
Upstream and downstream costs		0.0	249.5	0.0	59.2	Cost of switching to eco-motors and recycling and proper disposal of packing materials		
Management activity cost		0.8	132.8	21.7	90.5	Maintenance and operation of the environmental management system, examination and analysis of contained chemical substances, disclosure of environmental information, environmental education for employees and management of greening activities in the company		
Research and development cost		0.0	1069.4	0.0	544.6	Reducing and eliminating the use of banned chemical substances, research and development on resource-saving and energy-saving motors, etc.		
Cost for remedying environmental damage		336.1	236.8	0.0	101.5	Decontaminating soil and groundwater		
Total		340.4	1753.9	31.2	864.9			

Note: The conversion rate in 2005 is used for the amount in 2005. The conversion rate in 2006 is used for the amount in 2006.

■ Fiscal 2006 Environmental Effects

Details of e	ffects	Classification of indicator	FY 2004	FY 2005	FY 2006	Comparison with the preceding fiscal year	
		Energy input (GJ)	1,128,110	1,092,347	1,075,525	Reduction of 16,822 GJ	
	Effects on resources input to business activities	GJ per million units	567	603	593	Increase of 10 GJ per million units	
		Water input (10 thousand tons)	137	128	137	Increase of 90,000 tons	
Effects corresponding		10 thousand tons per million units	0.069	0.071	0.077	Increase of 60 tons per million units	
to cost within business area	2) Effects of environmental burden and waste from business activities	Amount of discharged waste (tons)	43,711	39,123	38,388	Reduction of 735 tons	
		Tons per million units	21.9	21.6	21.2	Reduction of 0.4 tons per million units	
		CO ₂ emissions (tons)	176,942	170,445	169,342	Reduction of 1,103 tons	
		Tons per million units	88.9	94.1	93.3	Reduction of 0.8 tons per million units	



Environmental Accounting Report (2)

However, the amount of investment in management activities, which amounted to approximately 22 million yen, showed a significant increase from the previous year. This was largely the result of investment at Jiangsu Mabuchi in nature protection, greening, beautification and scenery protection activities in and around the company premises as well as the improvement of employee working conditions.

The amount of investment in resources recycling accounted for about 3 million yen. This is mainly for the renewal work of rainwater storage tank-related facilities, an incidental environmental facility, at Head Office.

Meanwhile, the total amount of expenses decreased by 50.7% compared to the previous year. This is mainly because only the regular environmental management activity cost was required in fiscal 2006, while the disposal cost for non-ELV/RoHS compliant parts and materials was incurred at the end of fiscal

2005 as we switched all motor products to ELV/RoHS compliant models.

The environmental cost includes the research and development cost for environmentally compliant motors. The cost input to the research and development of environmentally compliant motors in fiscal 2006 was 544 million yen.

■ Environmental Effects

The scope of environmental effect data collection covers the entire Mabuchi Group.

Mabuchi Motor is continuing efforts to reduce energy consumption as part of measures to reduce CO₂ emissions. As a result of related activities, total energy consumption was reduced by 18,202 GJ and the energy consumption per million motors produced was reduced by 11 GJ in fiscal 2006 as compared to the previous year. Furthermore, the efforts of the entire Mabuchi Group (excluding sales facilities) to

reduce CO_2 emissions brought about significant achievements with a 1,103-ton reduction in total CO_2 emissions and a 0.8-ton reduction in CO_2 emissions per million motors produced in fiscal 2006 from the previous year.

Total water consumption increased by 90,000 tons and water consumption per million motors produced increased by 60 tons from the previous year. The major factor behind the increase is an expanded number of processes that use water. We are, however, determined to work to reduce usage of water resources in this area.

As for Pollutant Release and Transfer Register (PRTR) substances, since substances subject to the related PRTR Law have not been used for more than five years in Japan, we feel this no longer requires addressing.

■ Basic Points of Mabuchi Motor's Environmental Accounting

- 1. Period: January 1, 2006 through December 31, 2006
- Scope of calculation:
 Cost: Head Office (including the Technology Center)
 Jiangsu Mabuchi

Effect: Entire Mabuchi Group

- 3. Standard for calculating environmental preservation
 - Depreciation cost
 The depreciation cost in
 terms of financial accounting
 is reported.
 - 2) Labor cost
 All labor costs relating to
 environmental preservation
 activities are calculated.
 Formula:
 Number of operations ×
 hours per operation ×
 average wage by site
- Research and development cost
 Costs specific to individual research and development themes are individually
 - calculated. Those that cannot be directly grasped are proportionally calculated by theme according to working hours.
- 4) Standard for reporting compound costs
 Only costs relating to environmental preservation activities are reported in accordance with Environmental Accounting Guidelines (in 2005).



Promotion of Green Procurement (1)

■ Purpose of Green Procurement

Mabuchi Motor declares "Conduct corporate activities that promote the preservation of our Earth's environment and our own human health" as the fourth item of the Management Guidelines based on the Management Philosophy and "Promote business activities that have minimal negative impact on the environment and that strictly abide by safety standards" as the sixth item of the Management Policies based on the Management Guidelines. These management visions of Mabuchi Motor are also embodied in material procurement activities.

We thoroughly implement green procurement of materials to be used in our products. We also evaluate the environmental impact of our suppliers in procuring materials to ensure we work with those pro-actively addressing environmental issues. We have compiled Mabuchi Motor's concept of green procurement and requirements for suppliers as part of our "Standard Procedures for Green Procurement" and thereby promote green procurement activities with the cooperation and understanding of our suppliers.

■Activities in 2006

To further promote green procurement at Mabuchi Motor, the following activities were conducted in fiscal 2006.

- (1) To promote and strengthen the green procurement activities of overseas related companies, green procurement managers were assigned for each overseas related company and education and training were provided for three days at Head Office.
- (2) Overseas related companies held their own briefing meetings to gain the understanding and cooperation of suppliers concerning "Standard Procedure for Green Procurement."
- (3) To provide suppliers with information about Mabuchi Motor's green procurement on a timely basis, we have set up a special Web site targeting our suppliers.
- (4) Environmental audits were conducted for a total of 48 suppliers in order to prevent environmentally banned substances from being mixed into materials.



Green procurement education for green procurement managers of overseas related companies



Green procurement briefing meeting for suppliers held at Taiwan Mabuchi



Green procurement briefing meeting for suppliers held at Jiangsu Mabuchi



Briefing meeting on green procurement standards for suppliers held at Head Office



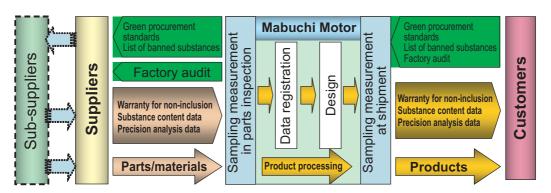
Audit of a supplier conducted by Guangdong Mabuchi





Promotion of Green Procurement (2)

Green Procurement Flowchart



■ Outline of the Mabuchi Motor Green Procurement System

Mabuchi Motor has specified the evaluation criteria for substances to be banned, restricted or reduced based on our own criteria in addition to laws, regulations and customers' requirements and confirms that environmentally banned substances specified according to these criteria are not contained in procured materials.

For the purpose of confirmation, the following documents must be

attached to the delivery specifications in addition to the submission of the environmental activity research sheet.

- (1) Warranty for non-inclusion of environmentally banned substances in delivered products and in the manufacturing process of the delivered products.
- (2) Chemical content data
- (3) Precision analysis data of each homogeneous substance

When selecting suppliers, we will add the Environment (E) to the conventionally used elements, Quality (Q), Cost (C) and Delivery (D) to evaluate each supplier's environmental conservation activities. We will steadfastly continue our efforts to prevent environmentally banned substances from being mixed in, always keeping the following motto in mind: "do not include, do not mix, do not emit."

Voice of the Green Procurement Promotion Staff



Mr. Lin Wu Quality Promotion Manager of Jiangsu Mabuchi

I participated in the green procurement-related education recently held at Head Office as Quality Promotion Manager of Jiangsu Mabuchi and I learned a great deal along with optimum management methods for green procurement. In particular, I could recognize the importance of the management of non-use of environmentally banned substances from the perspective of corporate management and social responsibility.

I will now bring the knowledge obtained and the management method learned to Jiangsu Mabuchi and make efforts to establish a solid green procurement system that follows the sequence of "environmental evaluation of suppliers, environmental evaluation of supplied products, establishment of the delivery specifications system and conducting audits of suppliers" for procurement of raw materials and parts by Jiangsu Mabuchi.



Manufacture of Environmentally Conscious Products (1)

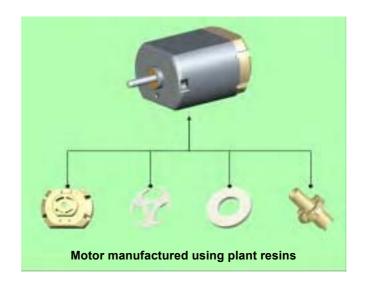
■ Production of Motor Parts Using Plant Resins

Mabuchi Motor, as a manufacturer specialized in small DC motors, develops and supplies innovative motors to market in response to various needs and in pursuit of a new potentials. While improvement of quality and performance of motors is, needless to say, an important theme of research, how to reduce the environmental burden on the Earth from production to disposal of motors is also becoming an important research theme.

At the Techno-Frontier 2006/ Motortech Japan 2006, we released to the public motors that use plant resins. This could in the future prove useful in light of the fact that some components of motors are made of plastics and experts predict that along with oil reserves, raw



Motor using plant resins on display at Motortech Japan Exhibition



materials for plastics could be depleted in 40 years or so according to current consumption levels.

Mabuchi Motor has long been engaged in the research and development of motor parts that put less of a strain on oil resources. Included in such research and development is the manufacture of motors using resins made from polylactic acid (PLA) ¹, plant-derived plastics.

Plant resins are also called biomass materials and such materials have various environmental merits. Raw materials, such as corn, are renewable and resins are also recyclable. While biomass materials produce carbon dioxide when burnt at the disposal stage as do fossil fuels, the plants have absorbed carbon dioxide for

photosynthesis in their growing process and eventually the amount of carbon dioxide in the atmosphere does not increase in their life cycle. This kind of characteristic, which does not impact carbon dioxide levels, is known as "carbon neutral." ²



Manufacture of Environmentally Conscious Products (2)

The use of polylactic acid (PLA) actually reduces carbon dioxide emissions as well as energy consumption in LCA (life cycle assessment) by about 60%, respectively, from conventionally used nylon resins, thereby contributing to global warming prevention and achieving energy saving. Since plants are not grown for food, it is possible to use dedicated species genetically modified in pursuit of obtaining a more efficient yield. Furthermore, polylactic acid is biodegradable resins and therefore, if buried, PLA products are hydrolyzed and decomposed by microorganisms and eventually become soil. PLA is thus expected to play a role in solving wasterelated issues.

In particular, it has become a topical issue because of its recent practical use for bodies of laptop computers, mobile phone casing, automotive mats and other applications. However, its use for functional components such as motors is a pioneering approach.

■Success in the Research and Development of Technology Eliminating the Cleaning of Parts



Example of a motor part without the need for cleaning

Organic solvents (such as trichloroethylene) used for cleaning parts, is a chemical substance that does not decompose easily and is suspected of having ties to the onset of cancer. This is a substance causing concern in regard to the health of workers and also in relation to contamination of groundwater and soil.

Mabuchi Motor has changed its production process to one that uses an alternative substance (carbon hydride) with a low environmental burden, replacing trichloroethylene in order to completely eliminate the use of chemical substances that are harmful to the global environment and human health. At the same time, we conducted research and development focusing on the elimination of the cleaning process, succeeded in fiscal 2006 in the development of technology that eliminates the cleaning of parts excluding some special parts. We will continue to promote further research and development to realize the elimination of parts cleaning.

Notes 1. Polylactic Acid (PLA)

Thermoplastic resin with biodegradability made from lactic acid produced through lactic acid bacteria fermentation of starch and sugar of corns and others. Biomass plastics are attracting attention as environmentally friendly materials.

Carbon Neutral
 It means that a property does not impact on the CO₂ levels.





Reducing CO₂ Emissions and Saving Energy

■ Efforts to Reduce CO₂ Emissions

Global warming is now one of the greatest crises facing mankind. Mabuchi Motor has been continuously taking various measures to help resolve this issue, and in the fiscal year under review reduced its CO₂ emissions, a typical greenhouse gas, by about 0.6% from the previous year. In contrast, emissions per unit produced started to significantly increase last year due to a decrease in the total production quantity following a rise in the proportion of medium- to largesized motors due to a change in the model mix. However, emissions per million motors produced dropped by about 0.9% this year from the previous year. (Please refer to the graph below.)

The largest source of CO_2 emissions in the Mabuchi Group is the use of electric power. Accordingly, in an effort to reduce CO_2 emissions, we have been focusing our attention on reducing electricity consumption.

In particular, Head Office conducted the Cool Biz campaign between July and September. According to related calculations, electricity saved during this campaign activity period amounted to about 123 tons (CO₂-equivalent), or a 10% reduction from the same period of the previous year, demonstrating a significant effect.

Guangdong Mabuchi, meanwhile, has engaged in activities to improve efficiency in the use of factory space through a production process review and layout change, aiming to improve productivity and reduce energy consumption.



The number of partitions was increased using vinyl sheets, which had the effect of reducing electricity used for air conditioning without affecting the view. (Guangdong Mabuchi)

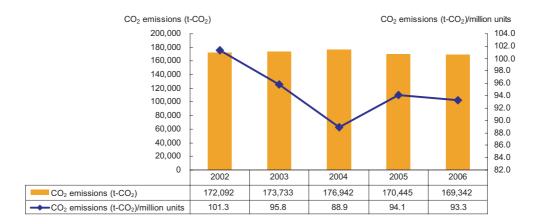
These activities achieved an improvement in production efficiency and a reduction in the total amount of electricity and water used and also contributed to a reduction in CO_2 emissions and will be continued in fiscal 2007 and onward.

Dalian Mabuchi reviewed the management and operation of employees' dormitories and reduced annual electricity use by 16,000 kWh through the adjustment of, for example, the operation time of vacant rooms and facilities. This resulted in a 9.9-ton reduction in CO₂ emissions on an annual basis.



Dormitory at Dalian Mabuchi

Changes in total CO₂ emissions and CO₂ emissions per million units produced in the Mabuchi Group





Measures to Combat Pollution and Contribute to its Prevention

■ Efforts toward Soil Decontamination

Mabuchi Motor used tetrachloroethylene to degrease and clean parts during the 1950s. Since there were no legal regulations on such cleaning solvents in those days, unlike today, and hazards of their use were not well known, using information currently available we have now identified some cases in which treatment was less than appropriate. Consequently, we conducted soil contamination research at the Head Office site in 2002 and soil where a cleaning room once stood was found to be contaminated. We thus reported the situation to the relevant Matsudo city authorities and started decontamination work. Under the guidance of Matsudo city, soil in the first aquifer, which was significantly contaminated, is being replaced while soil in the second aquifer is being decontaminated using water pumping and aeration/gas extraction methods. To prevent any outflow of contaminants from the premises, barrier wells have been installed downstream as well.

In 2004, we investigated for any possible soil contamination at the site of our subsidiary, Mabuchi Precision Industries Ltd., upon the closure of the factory and detected soil contamination. We immediately reported the situation to Gunma prefectural authorities and started decontamination work. In this location, the soil found to have high levels of contamination is being decontaminated completely by employing the oxidation catalytic method. In areas with low contamination concentrations, however, we are continuing decontamination efforts, having installed barrier wells and sheet piles downstream to prevent any outflow of contaminants outside of the premises, in addition to employing groundwater pumping and aeration methods.

In both areas, the contamination concentration level has decreased and decontamination work is progressing well; however, we are undertaking various other efforts to achieve prompt and complete decontamination.

The Mabuchi Group has now switched to cleaning solvents with a low environmental burden and is making efforts to eliminate the cleaning process for all parts.



Soil decontamination facilities at Head Office

■ Prevention of Noise and Vibration Pollution

Head Office and related companies regularly measure noise and vibration levels to confirm compliance



Measurement of noise and vibration (Head Office)

with related legislative regulations.

According to the measurement results in fiscal 2006, there was no violation of noise and vibration regulation limit values, which are relative to their respective locations.

■ Prevention of Air Pollution in Workplace

Mabuchi Motor regularly measures air quality in workplaces and exhaust air quality outdoors in order to protect employees' health and the immediate environment. In the case of offices, levels of volatile organic compounds (VOCs)¹ are measured to examine indoor environment.

Overseas related companies also conduct measurement and implement related measures required under relevant environ-mental regulations.



Regular measurement of air quality in workplace (Head Office)

Note 1. Volatile organic compounds: substances related to indoor pollution and deemed to potentially cause sick house syndrome including, for example, formaldehyde, vinyl acetate, toluene and xylene.



Reducing and Recycling Waste (1)

■ Achieving Zero Emissions

Mabuchi Motor is striving to achieve zero emissions to fulfill its social responsibility to recover and reuse waste as resources and reduce landfill waste.

We have analyzed the content, frequency of occurrence and amount of waste throughout the entire Group and taken various measures for its reduction.

The amount of waste across the entire Group in fiscal 2006 amounted to 38,388 tons, a 735-ton fall compared to the previous year. The amount of waste per million motor units also decreased, falling 0.4 tons from the previous year to 21.2 tons.

However, due to a change in waste recycling companies in

China, the total waste recycling rate dropped by 0.4 points from the previous year to 96.6%. The entire Group will continue to strive to achieve zero emissions.

■Efforts at Head Office

To promote zero emissions, in fiscal 2006 Head Office undertook recycling of kitchen waste and, after locating companies dealing in the recycling of such waste, had the kitchen waste recycled into feed and compost, thereby achieving a related recycling rate of 100%.

While fallen leaves and small branches at the Head Office were previously disposed of through incineration, 100% is now recycled into compost.



Feed produced from kitchen waste



Composting process for fallen leaves and small branches

Changes in the total amount of waste and the amount of waste per million motors produced in the Mabuchi Group between 2002 and 2006 Total amount of waste (t) 50,000 25 23.3 Amount of waste per million motors produced (t) 21.9 21.8 21.6 45,000 20 40,000 35,000 15 30,000 43,711 10 25,000 39,603 39,676 39,123 38,388 20.000 5 15,000 10.000 2002 2003 2004 2005 2006



Reducing and Recycling Waste (2)

We have initiated activities focused on pursuing the possibility of further separating conventional "burnable waste" into types that can be recycled. As part of the activities, with the cooperation of recycling companies, paper sheets that comprise 50% or more carbon, thermal paper and others were separated and recycled. Furthermore, we will analyze whether any waste now categorized as "plastic" but can be separated, Plans call for identifying processing companies capable of recycling such waste.

■Efforts of Overseas Related Companies

Overseas Related Companies are also promoting the reduction and recycling of waste.

For example, sludge¹ which is generated in the shaft production

process at Dalian Mabuchi and previously disposed of as landfill waste has been selected as a target of the company's recycling efforts and it is now successfully recycled into raw material for the manufacture of iron following efforts to identify processing companies capable of handling such waste. Accordingly, in fiscal 2006 a total of 62 tons of sludge was recycled.

Also at Dalian Mabuchi, while gloves used in the process to inspect motors' external appearance were previously disposed of, they



Sludge to be recycled

are now reused in the magnet process. Consequently, 1,300 pairs of gloves were reused, thereby contributing to the overall reduction of waste.



Gloves to be reused

Note 1. Sludge: Muddy material produced in the metal grinding process, comprising mainly metal oxide.

Changes in the waste recycling and landfill rates for the Mabuchi Group between 2002 and 2006 □ Incineration and landfill rate (%) □ Recycling rate (%) 100% 90% 80% 70% 60% 90.4 95.3 95.9 96.6 97.0 50% 40% 30% 20% 10% 9.6 0% 2002 2003 2004 2005 2006



Communication/ Contributions to Society (1)

Mabuchi Motor will continue to value communication with society and contributions to local communities as embodied in our Management Philosophy, "Contributing to International Society and Ever-expanding Our Contribution."

■ With People throughout the World

Every year since 2002, Mabuchi Motor has co-sponsored "Robocon: The Idea Battle—National Technical College Robot Contest" through funding support and the "ABU Asia-Pacific Robot Contest" with support and the provision of motors. In December 2006, Mr. Hashimoto, the President of ABU, presented us a plaque of appreciation in recognition of Mabuchi Motor's support.

Note 1. Robot contest for mainly college students initiated in 2002 by Japan Broadcasting Corporation (NHK) calling on the member broadcasters of the Asia-Pacific Broadcasting Union (ABU) to join.





Above: Mr. Hashimoto, President of ABU, presents a plaque of appreciation to President Kamei; right: plaque of appreciation Certificate of Appreciation Mabuchi Motor Co., Ltd.

Your company has been supporting the ABU Asia-Pacific Robot Contest for many years and contributed to the success of the Contests as well as the promotion of science and technology education in the Asia-Pacific region.

We therefore hereby present you a plaque of commemoration with our sincere appreciation.

December 8, 2006 Genichi Hashimoto President Asia-Pacific Broadcasting Union

■With Our Customers

Mabuchi Motor proactively participates in exhibitions involving our customers and values dialogue with our customers.

In 2006, we were awarded the status of "excellent supplier" by our customers.

■With Our Shareholders

As a means of disclosure of information to our shareholders, we publish the *Report* (Business Performance Results), *Annual Report*, *Factbook* and others. We are also striving to enhance our investor relations via our Web site.



Participating in an exhibition of a customer



Communication/ **Contributions to Society (2)**

■With Local Communities

The entire Mabuchi Group continuously contributes to local communities on an annual basis in a variety of ways. Such contributions include cleaning and greening activities in local communities.

In addition, we also make donations to aid areas damaged by natural disasters. In fiscal 2006, the Mabuchi Group donated more than 9 million yen in total toward relief activities in Indonesia, which has been hit by two major earthquakes in recent years.



by employees of Guangdong Mabuchi



employees of Jiangsu Mabuchi



Environmental protection volunteer activities by employees of Dalian Mabuchi



Donation from employees of Guangdong Mabuchi for the area damaged by a natural disaster



Mabuchi Motor continuously provides support to aid children's growth within local communities.

As for Head Office, some employees are assisting as lecturers at an elementary school in response to a request of the community. We also help children gain vocational experience and offer handicrafts classes to communicate the joys of manufacturing and science. Furthermore, our permanent exhibition at the Science Museum (Chiyoda-ku, Tokyo) is renewed every year and guidebooks for handicrafts are distributed free of charge at exhibitions.

Also at overseas related companies, educational support activities are conducted. These include the provision of scholarships, support for educational facilities and organizing factory tours.



Pupils of Motono village Municipal Takino Elementary School visiting the Technology Center for vocational experience



Handicrafts class offered at Chiba Museum of Science and Industry



Support for science education at a local elementary school by an employee of **Head Office**



Guidance on the 5S activities at a local elementary school by an employee of Dalian Mabuchi

■With Employees

At Head Office, a "Garden Party" was held in the Head Office grounds in October 2006, to which all employees (including dispatched employees and contractors' employees) and their families were invited in order to promote communication.

Also in 2006, we participated in awareness research on "Companies worth working for" conducted by the Japan Management Association. We are also promoting measures for further enhancing the "worthiness of work" based on the results of the research and other factors.



participating in the Garden Party at Head Office





History of Mabuchi Motor Environmental Conservation Activities (1)

Year	Month	Environmental conservation activities
1993	June	Adopted the management guideline: "Conduct corporate activities that promote
		the preservation of our Earth's environment and our own human health" as part
		of the Management Philosophy.
1993	December	Development of the first cadmium-free materials for motor commutators
1994	January	Set targets for recycling rate and reduction of in-house waste in the annual
		program and started continuous control of numeric targets.
1997	June	Set up "Environment Management Committee" for managing information on
		environmental problems at Business Platform Innovation Headquarters.
	November	Started modifications and improvements of cadmium-free materials.
1998	January	Revised the Standards for Waste Disposal Control for the Procedures based
		on the three Rs.
	July	Set up ISO 14001 certification project (E-Project) at Business Platform
		Innovation Headquarters.
		Started feasibility study for acquiring ISO 14001 certification.
	October	Established the Mabuchi Group's "Basic Environmental Policy."
		E-Project started activities to acquire ISO 14001 certification.
1999	May	Established Environmental Policy at Head Office in line with the requirements
		of ISO 14001.
	May	Announced Interim Environmental Targets for Head Office.
	June	Started operating EMS (Environmental Management System) at Head Office.
	December	Head Office acquired ISO 14001 certification.
2000	January	Started to eliminate and reduce the use of trichloroethylene.
	January	Started activities to develop a new method of lead-free soldering.
	March	Kaohsiung Mabuchi (Kaohsiung, Taiwan) acquired ISO 14001 certification.
	May	Eliminated the use of trichloroethylene at Head Office.
	July	Malaysia Mabuchi acquired ISO 14001 certification.
	August	Jiangsu Mabuchi (Jiangsu, China) acquired ISO 14001 certification.
	August	Dalian Mabuchi (Liaoning, China) acquired ISO 14001 certification.
	September	Started development of hexavalent chromium-free material for motors.
	October	Started green procurement activities.
	December	Completed evaluation of selection of cadmium-free substitutes.
	December	Taiwan Mabuchi acquired ISO 14001 certification.
	December	Hong Kong Mabuchi (Hong Kong, Guangdong, China) acquired ISO 14001
		certification.
	December	Started operation of returnable-container system in some regions.
2001	March	Vietnam Mabuchi acquired ISO 14001 certification.
	July	Lead-free soldering for motors was approved by Sony's "Committee for
		Electrical Component Standardization."
	December	Completed arrangements for mass production of lead-free soldering.
	December	Posted Environmental Report 2001 on website



History of Mabuchi Motor Environmental Conservation Activities (2)

Year	Month	Environmental conservation activities
2002	April	Started shipping samples of hexavalent chromium-free motors.
	July	Detected soil pollution from tetrachloroethylene in a section on the Head Office
		site and started purification and improvement.
	September	Started supplying motors satisfying EU Directives of ELV and RoHS.
2003	May	Started construction of Mabuchi Motor's new Head Office building, which
		incorporates state-of-the-art technology to reduce environmental burden.
	October	Established an environmental accounting system with guidance from
		ERNEST & YOUNG SHINNIHON.
2004	May	Introduced hydrocarbon scrubbers.
	June	Dalian Mabuchi won award as a model company for environmental
		conservation by environmental protection administration of Dalian, China.
	September	Jiangsu Mabuchi introduced environmental accounting system.
	October	Construction of Mabuchi Motor Head Office building completed using
		state-of-the-art energy-saving technology.
2005	June	The Mabuchi Group's first poster/photo contest promoting environmental
		consideration was held.
	December	Terminated the production of products not complying with RoHS Directive.
2006	April	Officially released motors using plant resins (successfully developed in 2005)
		to the public in Motortech Japan.
	September	Re-established the green procurement system.
	September	The Mabuchi Group's second poster/photo contest promoting environmental
		consideration was held.

Environmental Data

The results of the amount of energy use and the amount of waste of the Mabuchi Group for fiscal 2006 are as described below.

Туре	Unit	Head Office	Hong Kong Mabuchi	Taiwan Mabuchi	Kaohsiung Mabuchi	Dalian Mabuchi	Jiangsu Mabuchi	Vietnam Mabuchi
Electricity purchased	10,000 kWh	913	9,906	483	926	2,975	1,101	2,567
Petroleum gas	Ton	5	17	9	10	470	19	53
City gas	Ton	129	0	0	0	0	0	0
Coal	Ton	0	0	0	0	10,861	0	0
Gasoline	KL	13	242	12	10	127	39	16
Light oil	KL	5	1,342	13	1	23	4	81
Fuel oil A	KL	0	0	0	0	2	0	0
Total amount of discharged waste	Ton	192	25,108	656	231	5,903	900	5,398
Amount of landfill waste	Ton	18	683	47	26	66	30	419

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