

# Promoting Environmental Management

## Chief Environmental Officer's Message To Realize a Sustainable Society



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(Managing Executive Officer)

Sound solutions to social issues, such as preventing global warming, reducing environmental impact and protecting biodiversity, are needed in order to realize a sustainable society. Toward this end, in 2010, Kawasaki revised its Environmental Charter and established its Environmental Vision 2020, which defines the Group's identity in 2020 from an environmental perspective. And as a group, we prioritize strategies in four key areas— (1) realization of a low-carbon society, (2) realization of a recycling-oriented society, (3) realization of a society coexisting with nature, and (4) establishment of an environmental management system (EMS)—and vigorously pursue initiatives to achieve our vision.

Kawasaki Environmental Report 2016 highlights the results of our environmental management activities undertaken in fiscal 2016, the final year of our three-year Eighth Environmental Management Activities Plan.

First off, we rolled out energy-saving measures through wider introduction of our energy visualization system at manufacturing sites, and endeavored to eliminate waste and irregularities in energy use while raising facility efficiency. Through these efforts, we basically achieved reductions in greenhouse gas emissions and energy costs.

Meanwhile, our lineup of Kawasaki-brand Green Products, which demonstrate exceptional environmental performance, expanded to 32 products, as the system that assesses and registers Kawasaki-brand products acquired greater recognition inside and outside our corporate walls after its introduction in 2014. As approximately 80% of the greenhouse gases released during the lifecycle of Kawasaki-brand products come from their after-sale use, our goal is to reinforce activities that generate pervasive interest in minimal-emission Kawasaki-brand Green Products and thereby contribute to vast improvements in the environment.

I hope that the information contained in this report will provide readers with a deeper understanding of the environment-oriented management practices undertaken within the Kawasaki Group.

## Environmental Charter (established 1999, revised 2010)

### Environmental Philosophy

The Kawasaki Group pursues business activities globally in key industries related to land, sea, and air, guided by the desire to contribute to the development of society through *monozukuri* manufacturing. In this effort, as a group, we emphasize the "realization of a low-carbon society," "realization of a recycling-oriented society," and "realization of a society coexisting with nature" to help solve global environmental issues, and we strive to help build a sustainable society through environmentally harmonious business activities and environmentally conscious Kawasaki-brand products and services.

### Conduct Guidelines

- 1 Global environmental problems are serious issues shared by people around the world and, making it a management priority to ensure that business activities are conducted in harmony with the environment, we will strive willingly and vigorously toward this goal.
- 2 We will endeavor to conserve resources, save energy, recycle, and reduce industrial waste in production stages, and we will promote efforts to limit the impact of our operations on the environment.
- 3 We will carefully consider environmental impact during product planning, R&D and design stages to limit as much as possible any environmental impact caused during procurement, production, distribution, utilization and disposal stages of the products we make and market.
- 4 We will strive to minimize the impact our business activities have on ecosystems and engage proactively in efforts to protect these ecosystems.
- 5 In seeking solutions to global environmental issues, we will develop and provide new technologies and new products that effectively contribute to environmental protection and reduced consumption of energy and natural resources.
- 6 Going beyond environment-related laws, regulations and conventions and self-established action plans in related industries, we will implement our own environmental control standards, as appropriate, and strive to improve environmental management levels.
- 7 Through environmental training and public relations activities, we will strive to elicit greater awareness of global environmental issues among all employees and will encourage employees to perform a self-improvement review and participate in social contribution activities.
- 8 We will implement an environmental management system for environmental protection activities, hold regular conferences on environmental protection activities, undertake reviews, and strive to achieve continual improvement in our environmental protection activities.

# Environmental Management Platform

Kawasaki appoints a chief environmental officer (director responsible for environmental management), who coordinates corporate environmental management activities and assumes full responsibility and authority for environment-oriented issues, and maintains a corporate environmental management structure. (Fig. 1: Environmental Management Organization)

To ensure continuous improvement in environmental management activities, the Corporate Environment Committee, which is chaired by the chief environmental officer, discusses specific approaches and implementation methods, and has the final say on which activities are pursued.

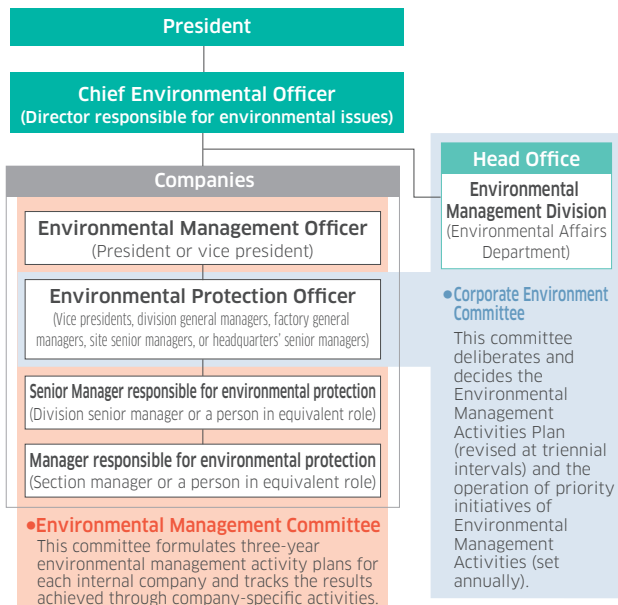


Figure 1: Environmental Management Organization

Similarly, in accordance with the Energy Saving Law, an energy management structure has been established under the direction of an energy management officer. (Fig. 2: Energy Management Organization)

The Corporate Energy Management Committee holds regular meetings and vigorously promotes energy-saving activities in line with business scale.

Kawasaki has been working to build and maintain an effective environmental management structure since 1994. Looking to the future, we will consistently refine our approaches to realize improvements. (Fig. 3: Environmental Management Flow)

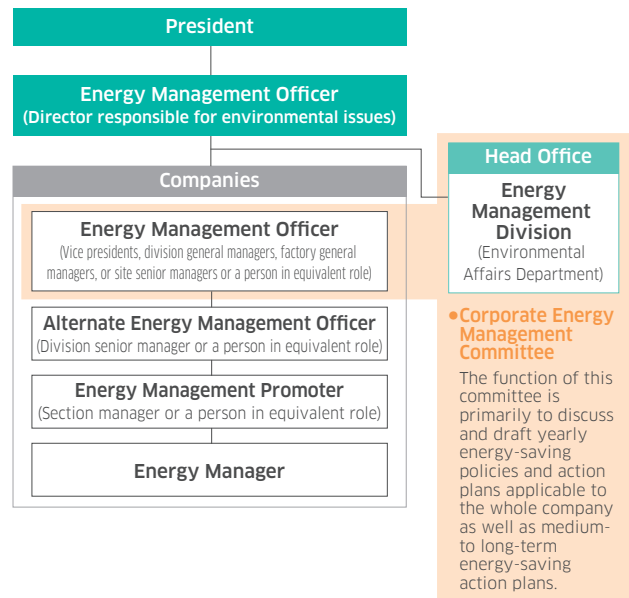


Figure 2: Energy Management Organization

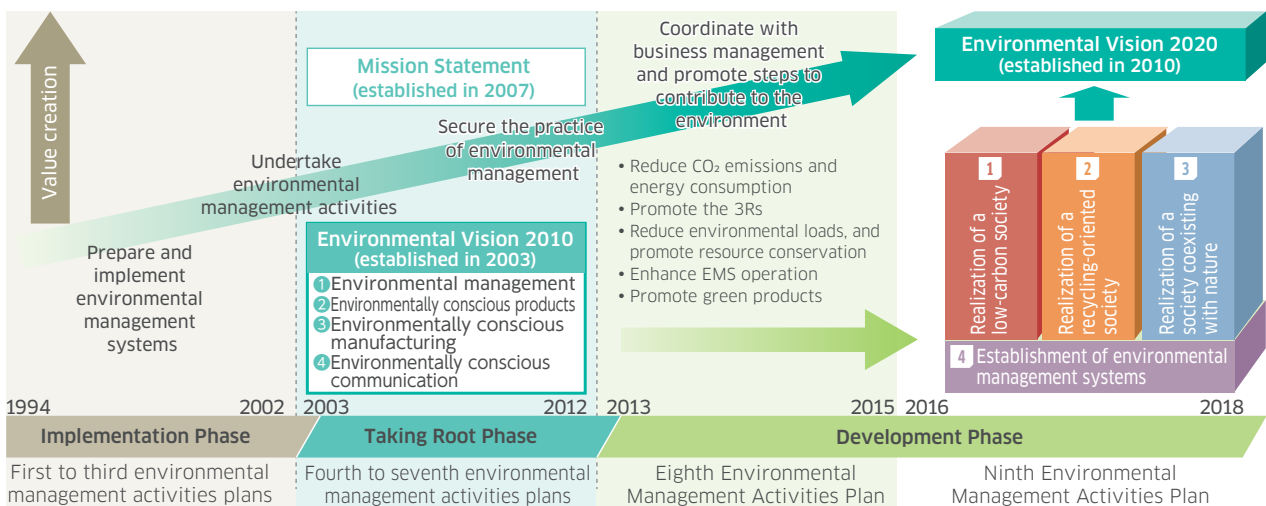


Figure 3: Environmental Management Flow

# Ninth Environmental Management Activities Plan (FY2017–FY2019) and Environmental Vision 2020

Kawasaki formulated its Ninth Environmental Management Activities Plan, which runs from fiscal 2017 to fiscal 2019. This plan emphasizes sustained efforts to integrate business management and environmental management, which were priorities under the Eighth Environmental Management Activities Plan. In addition, we have positioned as new key aspects a response to procurement diversification accompanying deregulation of energy supply in Japan, compliance with country emissions targets\* set at the 21st Conference of Parties (COP) under the United Nations Framework Convention on Climate Change, and efforts to ensure appropriate disclosure and transparency in providing environmental information to institutional investors, corporate assessment organizations and other performance-tracking groups. Toward achieving Environmental Vision 2020, we will tackle key strategies related to four issues—(1) CO<sub>2</sub> and energy cost reduction, (2) promotion of the 3Rs, (3) reduction of environmental load/promotion of resource conservation, and (4) enhancement of the Kawasaki Group environmental management system—and strive to heighten awareness as an environmentally friendly brand.

## Ninth Environmental Management Activities Plan

### Coordination with Business Management and Promotion of Environmental Contribution

Key strategies	Ninth Plan targets
<p><b>CO<sub>2</sub> and energy cost reduction</b> Realization of a low-carbon society</p>	<ul style="list-style-type: none"> <li><b>Reduce resource and energy costs, mainly through wider application of energy visualization system</b> Cut annual resource and energy costs by at least 5%</li> <li><b>Reduce CO<sub>2</sub> emissions</b> Cut CO<sub>2</sub> emissions per unit of sales by at least 3% year on year</li> <li><b>Reduce CO<sub>2</sub> emissions through product-based contributions</b> Identify CO<sub>2</sub> emission reduction effect through product-based contributions and disclose to public</li> <li><b>Carefully select investment projects</b> Push internal rate of return above 8% through energy-saving facilities</li> </ul>
<p><b>Promotion of the 3Rs</b> Realization of a recycling-oriented society</p>	<ul style="list-style-type: none"> <li><b>Reduce total waste emissions and maintain zero emission status</b> Reduce total waste emissions per unit of sales by at least 1% from level achieved under the Eighth Plan Push final disposal ratio below 1%</li> <li><b>Promote reuse and recycling</b> Boost recycling rate above 98%</li> <li><b>Promote PCB treatment</b> Systematically reduce high- and low-concentration PCB waste</li> </ul>
<p><b>Reduction of environmental load/ promotion of resource conservation</b> Realization of a society coexisting with nature</p>	<ul style="list-style-type: none"> <li><b>Reduce chemical substances</b> Reduce major VOCs* per unit of sales by at least 1% from level achieved under the Eighth Plan Cut dichloromethane by at least 1% year on year Strive to reduce hexavalent chromium to zero, in principle, by fiscal 2021</li> <li><b>Conserve water</b> Reduce annual consumption of water per unit of sales by at least 1% Track cost effect of measures to conserve tap water and prevent leaks from clean-water pipes</li> <li><b>Conduct forest conservation activity</b> Carry out forest conservation activity at least twice a year</li> </ul>
<p><b>Enhancement of the Kawasaki Group environmental management system</b> Enhancement of environmental management systems</p>	<ul style="list-style-type: none"> <li><b>Reinforce environmental management capabilities and lower environmental risk</b> Certified business sites to complete transition to ISO 14001: 2015 Visit domestic and overseas production sites to better pinpoint status of environmental management</li> </ul>
<p><b>Heightened awareness as an environmentally friendly brand</b></p>	<ul style="list-style-type: none"> <li><b>Leverage Kawasaki Green Product Promotion Activity</b> Register Kawasaki-brand Green Products every year and release data to public</li> <li><b>Enhance image through external evaluations and rankings</b> Announce results of third-party verification, improve evaluations under such schemes as CDP (Carbon Disclosure Project: world's most authoritative CO<sub>2</sub> index), and sustain placement in Dow Jones Sustainability Index</li> </ul>

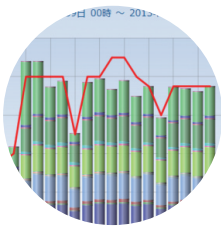
\*Main VOCs: For the Kawasaki Group, the major VOCs are toluene, xylene and ethyl benzene. VOCs: Volatile Organic Compounds

\*National CO<sub>2</sub> emissions reduction target  
COP21 (held December 2015 in Paris, France)  
..... Targeting 26% reduction from fiscal 2014  
level by fiscal 2031

## Group Mission

“Kawasaki, working as one for the good of the planet”

### Target Profile of the Kawasaki Group in 2020



- Energy consumption and CO<sub>2</sub> emissions**  
Major reductions achieved
- Contribution from products**  
Major reductions achieved in CO<sub>2</sub> emissions during utilization



- 3Rs**  
Major reductions achieved per unit of sales  
Recycling rate of more than 97%  
Zero emissions maintained
- PCB treatment**  
All treatment completed



- Major VOCs**  
Major reductions achieved per unit of sales and in total amount
- Heavy metals**  
Major reduction in amount utilized
- Forest conservation activity**  
Forest conservation activity continued



- Establishment of EMS**  
Establishment completed across the Kawasaki Group as a whole



### Environmental Vision 2020

#### Realization of a low-carbon society

Contribute to the prevention of global warming through our products and manufacturing that use energy without waste

- ① Reduce 2020 greenhouse gas emissions in line with national targets
- ② Offer customers energy-efficient products and services, and reduce emissions of greenhouse gases on a planetary scale
- ③ Promote energy conservation in production and logistics processes, and reduce emissions of greenhouse gases

#### Realization of a recycling-oriented society

Engage in manufacturing that uses resources without waste to recycle and fully utilize limited resources

- ① Practice design that uses resources effectively, and work to make products lighter, more durable and more recyclable
- ② Practice the 3Rs (reduce, reuse and recycle of waste) in production activities, and achieve zero emissions at all plants
- ③ Completely and appropriately treat all PCB waste and PCB-containing devices

#### Realization of a society coexisting with nature

Contribute to reduction of the environmental impact and conservation of the ecosystem through manufacturing that is in harmony with the global environment

- ① Offer customers products and services that prevent air and water pollution, and advance environment improvements and ecosystem protection
- ② Reduce the use of chemical substances in products and production activities
- ③ Cooperate in regional forest conservation and other activities to protect the environment of ecosystems

#### Establishment of environmental management systems

Build a foundation for environmental management that will achieve the Environmental Vision 2020

- ① Establish EMS at all consolidated subsidiaries in Japan and overseas to promote environmental management Group-wide
- ② Comply with environmental laws and regulations, and regularly follow up on compliance status
- ③ Communicate environmental data within and beyond the Group, and maintain two-way dialogue while protecting the environment