

# Nikon and the Environment

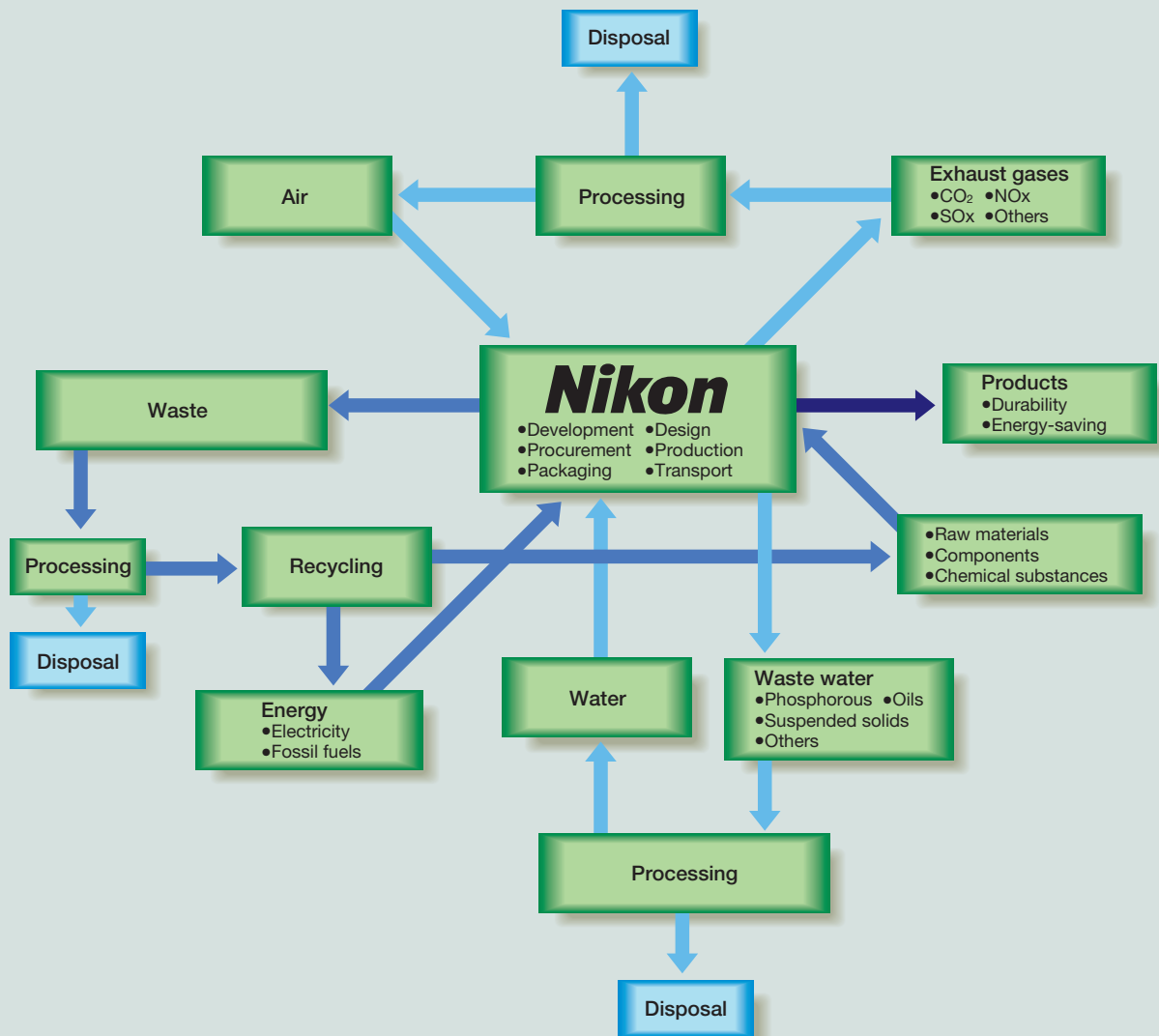
Nikon is aiming to achieve an environmentally harmonious organization throughout the entire Nikon Group.

## Nikon and the Environment

A corporation is like a living organism, functioning within the global environment. As it grows, it provides products and services to society and continues to grow, and during this time it consumes various resources and energy, and generates numerous types of waste.

It is crucial that we recognize the importance of recycling and conservation—particularly reductions in the use of energy and resources. We must also continue working to reduce our waste output until it has virtually been eliminated. It is imperative that corporations be aware of the impact their operations may be having on the environment, and implement more sophisticated ecological management programs.

Nikon is continuing its efforts to reduce waste materials, and we are also actively pursuing unique activities such as the development of eco-glass, which will significantly reduce our environmental loading. Nikon operates based on its corporate philosophy, "Trustworthiness and Creativity", and today we are applying the experience and technology gained through decades of work in the field to form a new, environmentally harmonious corporation.



# Environmental Policy

Aiming for a recycling society, Nikon is implementing its environmental policy across the Nikon Group.

## The Nikon Basic Environmental Management Policy

### Purpose of the Policy

Nikon enacted the "Nikon Basic Environmental Management Policy" in 1992 in order to express its commitment to improvements in its local environment as well as globally, and to act as the foundation for its environmental management activities. Nikon believes that pollution prevention measures and the efficient use of resources are vital steps that must be taken in order to be able to hand on to the next generation a healthy environment that is capable of supporting the continued development of society. Based on the "Vision Nikon 21" corporate strategy formulated in March 2000, in fiscal 2002, the Nikon policy underwent further major revision in response to the anticipated needs of the coming recycling society. An outline of the action guidelines is presented below.

### Action Guidelines

- (1) We will make every effort to promote waste reduction, reuse and recycling, while encouraging energy and resource conservation, waste reduction and conscientious waste processing, with the goal of creating an environment-conscious recycling society.
- (2) We will perform environmental and safety reviews at every stage of planning, development and design, in order to provide products that fully comply with environmental protection aims.
- (3) At every stage of production, distribution, use and disposal, we will actively introduce materials and equipment that are effective in protecting the environment, strive to develop and improve technologies in this area, and work to minimize environmental burdens.
- (4) We will meet targets for reduction of environmental burdens and use of harmful substances, and continue to improve our environmental management system through environmental audits and other means.
- (5) We will develop and follow a rigorous code of standards, in addition to observing all environmental conservation treaties, national and regional laws and regulations.
- (6) We will conduct ongoing education programs to further employee knowledge of environmental issues and promote employee involvement in environmental activities.
- (7) We will provide suppliers with guidance and information to promote optimal environmental protection activities.
- (8) We will participate actively in the environmental protection programs of society at large, and implement information disclosure.

## Primary Environmental Loading

Primary environmental loading data for the Nikon Group in fiscal 2005 is indicated in the table below.

▼ INPUT		Nikon	Subsidiaries	
Energy	Electricity	164,990	86,000	Mwh
	Gas	6,020	1,745	Thousand m <sup>3</sup>
	Heavy oil	322	2,324	kl
	Water	1,283	611	Thousand m <sup>3</sup>
Designated PRTR substances	1,1-dichloro-1-fluoroethane	0	2,110	t
	Dichloromethane/fluoropropane	0	4,340	t
	Xylene	0	1,655	t
	Hexavalent chrome	0	0,569	t
	Toluene	1,168	2,171	t
	Lead and lead compounds	3,401	0	t
	Nickel compounds	0,592	0	t
	Boron and boron compounds	6,041	0	t
▼ OUTPUT				
Energy	Electricity	62,522	32,508	t-CO <sub>2</sub>
	Gas	12,697	10,847	t-CO <sub>2</sub>
	Heavy oil	873	6,297	t-CO <sub>2</sub>
	1,1-dichloro-1-fluoroethane	0	1,806	t
Designated PRTR substance exhaust	Dichloropentafluoropropane	0	4,145	t
	Dichloromethane	0	0,671	t
	Hexavalent chrome	0	0	t
	Toluene	0,934	1,285	t
	Lead and lead compounds	0,002	0	t
	Nickel compounds	0	0	t
	Boron and boron compounds	0,004	0	t
Disposal	Amount of waste generated	2,909	1,757	t
	Amount recycled	2,777	1,643	t
	Amount of landfill	14	7	t

**Target Plants**

- Ohi Plant
- Yokohama Plant
- Sagami-hara Plant
- Kumagaya Plant
- Mito Plant

**Target Manufacturing Subsidiaries**

- Tochigi Nikon
- Mito Nikon
- Sendai Nikon
- Zao Nikon
- Kurobane Nikon

# Environmental Action Plan

Nikon set down its medium term environmental targets in 2000. The “Environmental Targets for Fiscal 2005”, which are incorporated in the “Nikon Environmental Action Plan for Fiscal 2005”, are broadly divided into 13 categories representing product and workplace environments as indicated below. The columns on the right show the results for fiscal 2005 and Nikon’s evaluation.

## ■ The Nikon Environment Action Plan for Fiscal 2005

### Product Environment

Theme	Fiscal 2005 environmental targets	Fiscal 2005 results	Evaluation
Energy conservation (prevention of global warming)	[Energy efficiency] • More than 30% improvement in overall energy efficiency of new products released, compared with figures of similar products already released	• 83% (83%) of the 23 applicable new products, achieved 30% or greater improvement in energy efficiency These products achieved simple average improvement of 57% (62%)	○
Reduction in use of hazardous chemical substances	[Eco-glass usage ratio] • Use of Eco-glass in 100% of new optical designs for consumer products, and at least 96% for industrial products	• Consumer products: 100% (100%) Industrial products: 96.5% (95.5%)	○
	[Lead-free solder] • Use of lead-free printed circuit boards for electronic components in more than 100% of consumer products and at least 50% of new industrial products by fiscal year end	• Consumer products: 100% (61%) Industrial products: 67% (20%)	○
	[Hexavalent chrome, lead, cadmium, mercury, PBB, PBDE, PVC] • Completion of preparation to clear RoHS Directive requirements	• Preparation to meet RoHS directive requirements completed (Major reduction)	○
	[Ozone layer-depleting substances] • Reduction of IC and LCD steppers using HCFC as a refrigerant to fewer than 15% of all products	• 15.9% (23%)	△
Green procurement	[Reduction in use of hazardous chemical substances] • Performance investigation and management implemented for all consumer products (including sales promotion and repair parts, etc.) and major components of selected industrial products	• Target achieved in both consumer and industrial fields	○
Packaging and distribution	[Greenhouse effect gas emissions] • Gauging CO <sub>2</sub> emissions in distribution in Japan	• Determined fundamental assessment policy and implemented estimation	△

### Workplace Environment

Theme	Fiscal 2005 environmental targets	Fiscal 2005 results	Evaluation
Energy conservation (prevention of global warming)	[Greenhouse effect gas emissions] • Reduction in annual emissions (converted to CO <sub>2</sub> ) per net sales of at least 25%, compared to levels for fiscal 2002	• 29% reduction (25% reduction)	○
Waste reduction	[Zero emissions] • Continuance of zero-emission systems at all plants and major manufacturing subsidiaries in Japan, and their extensive application to other workplaces	• Target achieved	○
	[Waste generation] • Reduction in waste generation of at least 25%, compared to fiscal 2000	• 21% reduction (18% reduction)	△
Reduction in use of hazardous chemical substances	[Chlorinated organic solvents] • Elimination of use of chlorinated organic solvents in wash at workplaces, including major manufacturing subsidiaries in Japan, by fiscal year end	• Target achieved	○
Green procurement	[Eco-procurement products] • Conformity with guidelines for at least 80% of all products	• 89% (79%)	○
ISO14001	[Integration of certification] • Nikon certification acquired	• Target achieved	○

\*In the section entitled “Fiscal 2005 results”, the data in parenthesis are results through fiscal 2004.  
\*Symbols: Circle indicates progress on schedule; triangle denotes insufficient effort.

With its sights on fiscal 2008, Nikon introduced a new three-year plan, the “Nikon Environmental Action Plan for Fiscal 2006”, which incorporates considerable revisions to the previous plan. Through integration of its Environmental Management System (EMS), Nikon aims to spread understanding of the management’s stance towards the environment throughout the entire Nikon Group, while developing EMS activities more effectively and more efficiently. At the same time, it will continue to expand the scope of the action plan to include group companies both in Japan and overseas.

## ■ The Nikon Environmental Action Plan for Fiscal 2006

### Product Environment

Theme	Mid-term/long-term environmental targets	Targets for fiscal 2006
Energy conservation (prevention of global warming)	[Energy efficiency] <ul style="list-style-type: none"> <li>• More than 30% improvement in overall energy efficiency of new products released between fiscal 2006 and fiscal 2008, compared to similar existing products</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement of 30% or greater</li> </ul>
Reduction in use of hazardous chemical substances	[Eco-glass usage ratio] <ul style="list-style-type: none"> <li>• Maintaining use of Eco-glass in new optical designs for 100% of consumer products and for at least 98% of industrial products by fiscal 2007</li> <li>Targeting at least 97% shipment ratio in optical glass division by fiscal 2008</li> </ul>	<ul style="list-style-type: none"> <li>• 100% of consumer products, at least 97% of industrial products and at least 95% in shipment ratio of optical glass</li> </ul>
	[Lead-free solder] <ul style="list-style-type: none"> <li>• 100% use of lead-free PC boards for new electronic components for consumer products by fiscal 2006, and thereafter, and at least 95% use for industrial products by fiscal 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Maintaining 100% use for consumer products, and at least 75% use for industrial products</li> </ul>
	[Hexavalent chrome, lead, cadmium, mercury, PBB, PBDE, PVC] <ul style="list-style-type: none"> <li>• Continued compliance with RoHS Directive and establish management system by fiscal 2006</li> <li>• Drastic reduction in use of hexavalent chrome in surface processes</li> </ul>	<ul style="list-style-type: none"> <li>• Continued compliance and establish of a management system</li> <li>• Reduction</li> </ul>
	[Ozone layer-depleting substances] <ul style="list-style-type: none"> <li>• Total elimination of HCFC as a refrigerant in IC and LCD steppers shipped in fiscal 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of products utilizing HCFC to 12% or fewer of total products shipped</li> </ul>
Green procurement	[Reduction in use of hazardous chemical substances] <ul style="list-style-type: none"> <li>• Implementation of green procurement activities for all products in consumer and industrial fields</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of green procurement in consumer fields</li> <li>Implementation of green procurement for major products in industrial field</li> </ul>
Packaging and distribution	[Greenhouse effect gas emissions] <ul style="list-style-type: none"> <li>• Reduction in CO<sub>2</sub> emissions of 3% compared with fiscal 2006 for distribution in Japan, by fiscal 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of the process to gauge CO<sub>2</sub> emissions in distribution in Japan</li> </ul>

### Workplace Environment

Theme	Mid-term/long-term environmental targets	Targets for fiscal 2006
Energy conservation (prevention of global warming)	[Greenhouse effect gas emissions] <ul style="list-style-type: none"> <li>• Reduction in annual emissions (converted CO<sub>2</sub>) per net sales of 35% by fiscal 2010 and at least 30% by fiscal 2008, both compared to fiscal 2001, at all Nikon plants and major manufacturing subsidiaries in Japan</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of at least 20%</li> </ul>
Waste reduction	[Waste generation] <ul style="list-style-type: none"> <li>• Reduction in amount of waste generated of at least 20%, compared to fiscal 2000, at all Nikon plants and major manufacturing subsidiaries in Japan</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of at least 10%</li> </ul>
Green procurement	[Eco-procurement products] <ul style="list-style-type: none"> <li>• Compliance with guidelines for at least 90% of all products by fiscal 2006 and thereafter</li> </ul>	<ul style="list-style-type: none"> <li>• Conformity with guidelines for at least 90% of all products</li> </ul>
ISO14001	[Integration of Environmental Management Systems] <ul style="list-style-type: none"> <li>• Complete system integration for major overseas manufacturing subsidiaries by fiscal 2007</li> <li>Complete system integration for major Nikon Group places of business by fiscal 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Certification of Nikon Corporation and major manufacturing subsidiaries in Japan completed</li> </ul>

\*Mid-term/long-term environmental targets are for fiscal 2008 unless specified otherwise

\* For details concerning Nikon Group environmental activities, please visit:  
<http://www.nikon.co.jp/main/eng/portfolio/enviornment/index.htm>