

Environmental Accounting

Nikon introduced its first comprehensive environmental accounting system in fiscal 2001. Environmental accounting involves accounts that show the cost and the effects of environmental conservation activities. Through the introduction of environmental accounting, we aim to improve the effectiveness of our conservation activities,

Features

Nikon's environmental accounting features the classification of environmental costs and effects in line with our environmental preservation activities.

Basic Policy

The figures contained in our environmental accounts for fiscal 2004 include those for Nikon Corporation and our major manufacturing subsidiaries. Environmental costs (investments and expenses) are based on Nikon environmental targets and measures, as well as standards set forth in the Environmental Accounting Guideline (2002 version) of the Japanese Ministry of the Environment.

and implement sustainable environmental policies over the long term with quantifiable results. We are also working to heighten awareness of our environmental conservation activities, through the publication of related information and the clarification of our stance on the environment.

Development

We established an "Environmental Accounting Sub-Committee" within the "Environmental Committee" in June 2000, with the aims of creating an environmental accounting system and an appropriate means of operation. This Sub-Committee is active on an ongoing basis.

Effects

The effects of our environmental activities are shown under the heading "Results through Fiscal 2004" on the Environmental Action Plan in the next chapter. These results are the actual results of strategies implemented in response to our environmental target values.

Cost of Environmental Conservation (Fiscal 2004: Nikon Corporation only)

Unit: millions of yen

Category		Main Activities	Investment	Expenses	Total
Product environment	Product development: <small>Energy conservation, reduced use of resources, reduction in use of harmful chemical substances, ozone layer protection</small>	Energy-saving design, switch to hot-runner moulds, design products for use with Eco-glass	0	114	114
	Production and inspection	Analysis of harmful chemical substances	30	-	30
	Containers and packaging	Reduction in use of plastics in packaging materials	-	0	0
	Green procurement	Investigation of harmful chemical substances	-	5	5
	Product Environmental Accounts		30	120	150
Workplace environment	Energy conservation	Replacement of air conditioning systems, installation of inverters	106	13	119
	Resource recycling	Recycling of waste plastics, promotion of paper reuse, reducing water use	7	29	36
	Reduction in use of harmful chemical substances	Promotion of use of alternative solvents, refurbishment of wash machines	-	-	-
	Green procurement	Establishment and operation of Green Purchase Guide	-	7	7
	Improvement of office	Improvement of office environmental performance	-	52	52
	Workplace Environmental Accounts		113	100	213
	Response to laws and regulations	Operations management for gas and water emissions processing equipment, maintenance of noise and vibration-emitting facilities, waste management, control of dangerous substances	194	413	607
	Management activities	ISO 14001 related (EMS management, workplace education), introduction of greenery	-	420	420
	Total		337	1,053	1,390

Classified According to Guidelines of the Ministry of the Environment (Fiscal 2004: Nikon Corporation only)

Unit: millions of yen

Category	Main Activities	Investment	Expenses	Total	Scope of Data:
Cost within business area		307	455	761	Applicable Period: April 1 st , 2003 to March 31 st , 2004
Pollution prevention costs	Operations management for gas and water emissions processing equipment, maintenance of noise and vibration-emitting facilities	147	185	331	
Global environment conservation costs	Energy conservation, reduction in use of harmful chemical substances, control of dangerous substances	153	90	242	* Costs which could not be clarified are in principle not included in these accounts. * Depreciation and amortisation have not been factored into these accounts.
Resource recycling costs	Waste reduction (recycling of waste plastics, promotion of paper reuse), waste management, reducing water use	7	181	188	
Upstream/Downstream costs	Investigation of harmful chemical substances, establishment and implementation of Green Purchase Guide	30	13	42	* Where a facility has been utilised for several purposes and breakdown is considered complex, the entire cost has been included in the investment cost.
Management activities costs	ISO 14001 related (EMS management, workplace education)	-	463	463	
R & D costs	Energy-saving design, switch to hot-runner moulds, design products for use with Eco-glass	-	114	114	* All costs have been rounded up or down to the nearest whole number, so in some cases the totals do not match the figures indicated.
Social activity costs	Financial sponsorship for a wide range of activities	-	4	4	
Environmental damage costs	Processing contaminated soil	-	5	5	
Total		337	1,053	1,390	

Cost of Environmental Conservation Activities (Fiscal 2004 – Manufacturing subsidiaries): Tochigi Nikon, Mito Nikon, Sendai Nikon, Zao Nikon, Kurobane Nikon

Unit: millions of yen

Category	Cost within business area					Upstream/Downstream costs	Management activity costs	Social activity costs	Total	
	Pollution prevention		Global environment conservation		Resource recycling				Investment	Expenses
	Investment	Expenses	Investment	Expenses	Expenses					
Product environment	Product development	-	-	-	-	0.1	-	-	-	0.1
	Containers and packaging	-	-	-	-	-	-	-	-	-
	Green procurement	-	-	-	-	0.7	-	-	-	0.7
	Product Environmental Accounts	-	-	-	-	-	-	-	-	0.8
Workplace environment	Energy conservation	-	-	32.6	0.8	-	-	-	32.9	0.8
	Resource recycling	-	-	-	-	5.4	-	-	-	5.4
	Reduction in use of harmful chemical substances	-	-	-	2.4	-	-	-	-	2.4
	Improvement of office	-	-	-	-	-	0.5	-	-	0.5
	Workplace Environmental Accounts	-	-	-	-	-	-	-	-	8.3
	Response to laws and regulations	17.0	39.4	-	4.8	54.0	-	-	17.0	98.1
	Management activities	-	-	-	-	-	91.1	0.4	-	91.5
	Investment	17.0	-	32.6	-	-	-	-	49.9	-
	Expenses	-	39.4	-	7.9	59.4	0.8	91.6	0.4	199.6
	Total									249.5

The Ongoing Challenge

In addition to trying to collect environmental cost data more quickly and efficiently, we are also aiming to improve our methods for gauging the effects of our activities, so that we can clearly illustrate the relationship between cost and effect. To that end, for the first time we have listed

data for our manufacturing subsidiaries which have the most significant impact on the environment. In the future, we intend to publish more detailed analyses of these subsidiaries.

Environmental Action Plan

Nikon implemented its corporate policy statement for group activities, known as “Vision Nikon 21”, in March 2000. This was the basis for the midterm environmental targets we specified in our “Nikon Environmental Action Plan for Fiscal 2001”. Now we have the revised plan as the “Environmental Targets for Fiscal 2004”,

which comprises the first year’s target of the “Nikon Environmental Action Plan for Fiscal 2004”. It separates the targets into 12 categories representing the product and workplace environments as shown below.

The following evaluation is for fiscal 2004.

The Nikon Environmental Action Plan for Fiscal 2004

Product Environment

Theme	Fiscal 2004 environmental targets	Fiscal 2004 results	Evaluation
Energy conservation (prevention of global warming)	[Energy consumption efficiency] • Improvement in energy efficiency of 10% or greater for newly released products, compared with figures for fiscal 2001.	• For the 14 applicable newly released products, 12 achieved a 10% or greater improvement in energy efficiency, with a simple average improvement of 61%. Some examples are introduced on pages 14 – 16.	○
Reduction in use of harmful chemical substances	[Eco-glass usage ratio] • Use of Eco-glass in at least 95% of all optical designs for consumer products, and at least 91% for industrial products.	• Consumer products: 97%. Industrial products: 95% (92%).	○
	[Lead-free solder] • Introduction of lead-free printed circuit boards for electronic components into consumer and industrial (new board) products.	• Consumer products: Two products employ only lead-free boards; one other product incorporates primarily lead-free boards. Industrial products: Preparation for transition in progress; some lead-free boards have been introduced.	○
	[Hexavalent chrome, lead, cadmium, mercury, PBB, PBDE, PVC] • Increase in products shipped with reduced levels of the above hazardous substances.	• Products featuring reduced levels of aforementioned hazardous substances were released.	○
	[Ozone layer-damaging substances] • Reduction of IC and LCD steppers using HCFC as a refrigerant to fewer than 15% of all products.	• 23% (38%).	△
	[Green procurement] • Identification, announcement, and investigation of special hazardous chemical substances.	• Identification, announcement, and investigation of special hazardous chemical substances.	○
Containers and packaging	[Plastic containers and packaging] • Reduction of at least 30% compared with figures from fiscal 2001.	• 240% increase (159% increase).	×

Workplace Environment

Theme	Fiscal 2004 environmental targets	Fiscal 2004 results	Evaluation
Energy conservation (prevention of global warming)	[Greenhouse gas emissions] • Reduction of at least 1% in average annual greenhouse gas emissions per net sales for five-year period from fiscal 1998 to fiscal 2002.	• 9% reduction (2% increase).	○
Waste reduction	[Zero emissions] • Achievement of zero-emission system for at least one more major manufacturing subsidiary.	• Zero-emission systems were developed for Tochigi Nikon and Kurobane Nikon.	○
	[Waste generation] • Reduction in amount of waste generation per net sales of at least 5% compared with figures from fiscal 2001.	• 22% reduction (6% reduction).	○
Reduction in use of harmful chemical substances	[Chlorinated organic solvents] • Reduction in use of chlorinated organic solvents in wash at workplaces including major manufacturing subsidiaries, by at least 80% compared with figures from fiscal 1999.	• 95% reduction (82% reduction).	○
Green procurement	[Eco-procurement products] • Preparation and introduction of guide to green purchasing, and conformity with guidelines for at least 60% of purchases.	• Green purchasing implementation guidelines prepared and distributed within Nikon Group. 66% of purchases conformed with guidelines.	○

* In the section titled, “Results through fiscal 2004”, the data in parentheses are results through fiscal 2003.

Symbols: Circle indicates progress on-schedule; triangle denotes insufficient effort; “X” represents significant gap between stated goal and actual performance.

Nikon introduced a new three-year plan, “Nikon Environmental Action Plan for Fiscal 2005” (from fiscal 2005 to fiscal 2007), which incorporates considerable revisions to the previous plan. The long-term target for fiscal 2011 — the reduction of greenhouse gas emissions — is also displayed.

Nikon is committed to reaching every one of the targets during the coming period.

The Nikon Environmental Action Plan for Fiscal 2005

Product Environment

Theme	Midterm/long-term environmental targets	Targets for fiscal 2005
Energy conservation (prevention of global warming)	[Energy consumption efficiency] • More than 30% improvement in overall energy efficiency of new products released through the end of fiscal 2007, compared with figures of similar products already released.	• Improvement of 30% or greater.
Reduction in use of harmful 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 by fiscal 2007.	• 100% of consumer products, at least 94% of industrial products.
	[Lead-free solder] • Use of lead-free printed circuit boards for electronic components in 100% of consumer products and at least 50% of new industrial products shipped in second half of fiscal 2006 and beyond, to be increased to 100% by fiscal 2007.	• At least 50% of consumer products and at least 20% of industrial products.
	[Hexavalent chrome, lead, cadmium, mercury, PBB, PBDE, PVC] • Total elimination of these substances in consumer products shipped, excluding non-alternative materials, in second half of fiscal 2006 and beyond.	• Major reduction of aforementioned substances in consumer products.
	[Ozone layer-damaging substances] • Total elimination of HCFC as a refrigerant in IC and LCD steppers shipped in fiscal 2007.	• Reduction of models utilising HCFC to 20% or fewer of total models shipped.
	[Green procurement] • Completion of investigation of special hazardous substances in all consumer products (including sales promotion and RP items) and major industrial products, by fiscal 2007.	• Performance investigation and management implemented for key consumer products and selected industrial components.
Containers and packaging	[Plastic containers and packaging] • Reduction of at least 30% compared with figures from fiscal 2003 for consumer products, by fiscal 2007.	• Reduction of 20% or greater.

Workplace Environment

Theme	Midterm/long-term environmental targets	Targets for fiscal 2005
Energy conservation (prevention of global warming)	[Greenhouse gas emissions] • Reduction in average annual emissions per net sales of at least 25% by fiscal 2011 and at least 5% by fiscal 2007, both compared to levels for fiscal 2002.	• Reduction of 3% or greater.
Waste reduction	[Zero emissions] • Establishment of zero-emission systems at major manufacturing subsidiaries in fiscal 2005. [Waste generation] • Reduction in amount of waste generation of at least 30% by fiscal 2007, compared with figures from fiscal 2001.	• Establishment of zero-emission systems at major manufacturing subsidiaries. • Reduction of 20% or higher
Reduction in use of harmful chemical substances	[Chlorinated organic solvents] • Elimination of chlorinated organic solvents in wash used at all workplaces, including major manufacturing subsidiaries by the end of fiscal 2006.	• Reduction of 95% or greater compared to figures from fiscal 1999.
Green procurement	[Eco-procurement products] • Conformity with guidelines for at least 85% of all products by fiscal 2007.	• Conformity with guidelines for at least 70% of all products.