# **Environmental Activities of Fiscal 2001**

# Results of Environmental Accounting

Nitto Denko Group companies find out the relationship between environment and management from our own point of view, tabulate the results using environmental accounting, and even publish a brief statement of accounts. Outside the company, we are active members of the Ministry of the Environment's "committee on corporate research of environmental accounting" and the Ministry of the Economy and Industry's committee.

### **Results of 2001**

As a non-consolidated base, environmental impact cost has been reduced by the effect of unachieved budget of sales. Because the percentage of

Environmental budget results calculation table (Nitto Denko non-consolidated base)

1. Environmental cost (million yen/month)

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	Categories	Fiscal 2001 budget (A)	Fiscal 2001 results (B)	Balance (B-A)	Budget ratio (B÷A)
	Total sales	20,177.0	16,288.0	<b>▲</b> 3,889.0	80.7%
Р	roduction amount	19,695.3	15,290.1	<b>▲</b> 4,405.2	77.6%
	General and administrative overhead	72.4	81.3	8.9	112.3%
CON	Treatment for industrial waste	89.4	77.1	<b>▲</b> 12.3	86.2%
conservation costs	External services for envir- onmental management	21.5	18.9	▲2.6	87.9%
atio	Personnel	44.0	42.9	<b>▲</b> 1.1	97.5%
n cc	Depreciation	100.4	96.6	▲3.8	96.2%
sts	R&D&E	93.2	95.1	1.9	102.0%
	Total	420.9	411.9	<b>▲</b> 9.0	97.9%
=	Value of industrial waste	2,797.2	2,576.5	<b>▲</b> 220.7	92.1%
Environmental impact costs	Energy	358.6	330.8	<b>▲</b> 27.8	92.2%
	Organic solvents	182.3	130.1	<b>▲</b> 52.2	71.4%
	Water	20.6	21.7	1.1	105.3%
<u>a</u>	Total	3,358.7	3,059.1	▲299.6	91.1%
R	atio of environmental	16.6%	18.8%	2.1%	112.8%

reduction was small compared with sales, environmental impact cost ratio was 18.8%, and 16.6% of the budget therefore was not achieved. On the other hand, with the settlement of accounts of the consolidated base

started in fiscal 2001 by participation of 5domestic manufacturing group companies, it be- came 5.4%, surpassing the budget by 0.3 points.

#### 2. Benefical to the environment

	Categories	Fiscal 2001 budget (A)	Fiscal 2001 results (B)	Balance (B-A)	Budget ratio (B÷A)
Er	vironmental impact costs (million yen/month)	3,358.7	3,059.1	<b>▲</b> 299.6	91.1%
	Ratio of environmental impact costs	16.6%	18.8%	2.1%	112.8%
Cost	of incinerating materials of value (million yen/month)	6.0	5.3	<b>▲</b> 0.7	88.3%
	Quantity of disposed industrial waste (t/month)	2,800.1	2,586.0	<b>▲</b> 214.1	92.4%
_	Recycling rate	_	91.3%	_	_
-  -	Value of industrial waste ratio	14.2%	16.9%	2.6%	118.6%
Voluntary	Consumption of energy ((c)/month)	8,984.8	8,263.2	<b>▲</b> 721.6	92.0%
~	Consumption of energy per product unit ( /million yen)	456.2	533.5	77.3	116.9%
	Solvent emission (t/month)	370.8	240.5	<b>▲</b> 130.3	64.9%

Tabulation range

Nitto Denko non-consolidated base

\*Ratio of environmental impact costs = environmental impact costs÷total sales

Environmental budget results calculation table (Nitto Denko Group domestic companies)

Environmental cost (million ven/month)

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	Categories		Fiscal 2001 budget (A)	Fiscal 2001 results (B)	Balance (B-A)	Budget ratio (B÷A)
	Total sales		3,160.4	2,638.5	<b>▲</b> 521.9	83.5%
	Production amount		-	1,742.8	_	_
		General and administrative overhead	2.1	0.6	<b>▲</b> 1.5	28.6%
		Treatment for industrial waste	5.8	6.8	1.0	117.2%
0	Environmental costs	External services for envir- onmental management	3.4	2.3	<b>▲</b> 1.1	67.6%
	mer atio	Personnel	5.6	5.4	▲0.2	96.4%
	ntal n cc	Depreciation	10.7	4.9	<b>▲</b> 5.8	45.8%
	sts	R&D&E	9.1	5.3	▲3.8	58.2%
	Total		36.7	25.3	<b>▲</b> 11.4	68.9%
		Value of industrial waste	122.9	100.4	▲22.5	81.7%
	mpa	Energy	35.3	29.9	<b>▲</b> 5.4	84.7%
	Environmenta impact costs	Organic solvents	21.3	12.5	▲8.8	58.7%
	nent osts	Water	0.4	0.5	0.1	125.0%
	<u>a</u>	Total	179.9	143.3	▲36.6	79.7%
	Ra	tio of environmental impact costs	5.7%	5.4%	▲0.3%	95.4%

#### 2. Benefical to the environment

Categories		Fiscal 2001 budget (A)	Fiscal 2001 results (B)	Balance (B-A)	Budget ratio (B÷A)
Environmental impact costs (million yen/month)		179.9	143.3	▲36.6	79.7%
Ratio of environmental impact costs		5.7%	5.4%	▲0.3%	95.4%
Cost of incinerating materials of value (million yen/month)		0.2	0.3	0.1	150.0%
	Quantity of disposed industrial waste (t/month)	217.6	185.4	▲32.2	85.2%
_	Recycling rate	_	58.7%	-	_
<u>ا</u>	Value of industrial waste ratio	_	5.8%	_	_
Voluntary	Consumption of energy (kt//month)	704.1	716.6	12.5	101.8%
~	Consumption of energy per product unit (/million yen)	-	411.2	-	_
	Solvent emission (t/month)	43.4	40.6	<b>▲</b> 2.8	93.5%

Tabulation range Nitto Shinko Corp.

Nitoms Inc.

Saitama Nitto Denko Corp.

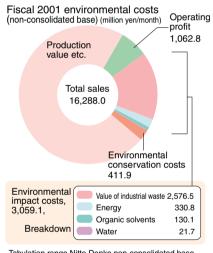
Mie Nitto Denko Corp.

Nitto Life-tech Co., Ltd.

\*Ratio of environmental impacts costs = environmental impact cost $\div$ total sales

## Philosophy of environmental accounting

With the Nitto Denko Group's environmental accounting, in addition to environmental conservation costs, raw material and processing cost (value of industrial waste) of industrial waste, not used for product manufacturing and cost of energy, solvents and water consumed in the manufacturing process in the company, are defined and tabulated as environmental impact costs. Believing that reducing these environmental impact costs has an environmental effect, we are looking for ways to improve resource productivity and feel this is related to total low cost. Through environmental accounting, the Nitto Denko Group has switched its environmental policy from measures oriented toward treatment of conventional industrial waste (dealing with that problem at its destination) to establishment of manufacturing technology that does not produce waste (dealing with that problem at its source) in order to support both business and environmental conservation.



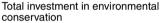
Tabulation range Nitto Denko non-consolidated base

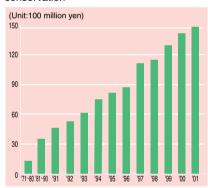
# Fiscal 2001 environmental costs (Nitto Denko Group)(million yen/month) Production value etc. Total sales 2,638.5 Environmental conservation costs 25.3 Environmental impact costs, 143.3, Organic solvents 100.4 Energy 29.9 Organic solvents 12.5

Tabulation range Nitto Shinko Corp. Nitoms Inc. Saitama Nitto Denko Corp. Mie Nitto Denko Corp. Nitto Life-tech Co., Ltd.

# Investment in environmental conservation equipment

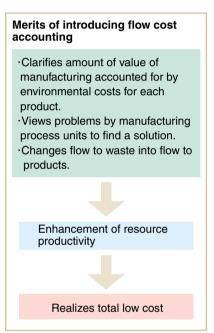
Investment in environmental conservation equipment in fiscal 2001 was 1.55 billion yen, coming to a total of 15.14 billion yen since 1971.

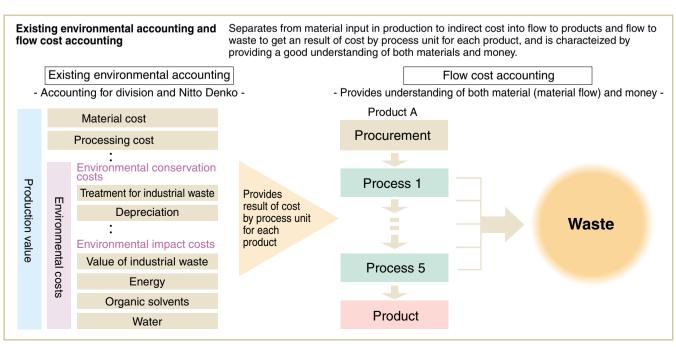




# Flow cost accounting

The Nitto Denko Group has introduced flow cost accounting being developed in Germany etc., on a trial basis. With this type of accounting, costs from energy and raw material invested in production to indirect costs are separated into flow to manufactured products and flow to waste in order to get an understanding of both the amount of materials and money by process units. Flow cost accounting can help apply environmental accounting for internal business management. This activity also serves as a model for "Trade and Industry's committee on environmental accounting and study of advancement of eco-buisiness" of the Ministry of Economy and Industry. Effectiveness and possibility of introduction of the Toyohashi plant's adhesive tape for electronics as a model product was studied in fiscal 2001.





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