

# DNP

## DNP Group Environmental Report 2011



# DNP Group Environmental Report 2011

## Editorial Policy

- While most of our environmental activities are covered in our DNP Group CSR Report 2011, from this year forward we will also issue the DNP Group Environmental Report 2011, featuring comprehensive coverage of our environmental activities. This report was composed based upon the Japanese Ministry of the Environment's Environmental Reporting Guidelines (2007 edition).
- The DNP Group Environmental Report 2011 is published on the DNP website, and the page format is designed to make it easy to read on the Web.
- For important points a column by a relevant party is included.
- At the conclusion of website data section, data for overseas websites is included.
- To ensure the reliability of the information in this Report, we submitted it to a third-party review conducted by the Ernst & Young ShinNihon Sustainability Institute Co., Ltd. Also, the report was granted the Environmental Report Assurance and Registration Mark in recognition of its compliance with the Environmental Report Assurance and Registration Mark Standards established by the Association of Assurance Organizations for Sustainability Information.

## [Period covered by this report]

This report focuses on the period from April 1, 2010 through March 31, 2011. Nonetheless, due to the occurrence of the Tohoku-Pacific Ocean Earthquake, data for this period for some sites is not included. In some instances, the reporting of information about important items not occurring within that period may also be included.

## [Scope of environmental data]

Of companies subject to our consolidated financial accounting, environmental accounting was applied to 36 of the Group's domestic manufacturing companies, one distribution company, and one in-house food catering company, for a total of 38 companies. (See pp 42 and 43)

## CONTENTS

- 2 Message from the Director in Charge of the Environment
- 3 Outline of the DNP Group
- 4 The DNP Group's Fields of Business
- 5 DNP Group Vision for the 21st Century
- 6 DNP Group Code of Conduct

- 39 Revisions of the DNP Group's Environmental Targets
- 40 Environmental Impact Status at Overseas Sites
- 41 Results of efforts
- 42 Domestic site for disclosure of performance data (1)
- 43 Domestic site for disclosure of performance data (2)
- 44 Independent Review Report Comments by an Independent Institution

## 1 The foundation of our environmental activities

- 7 DNP Group Environmental Policy
- 8 Environmental Management Structure
- 9 Environmental Management System
- 10 Step in Eco-Audit and Contents
- 11 2010 Eco-Audit Performance
- 12 Environmental Risk Management
- 13 Certification Acquisition Status
- 14 Environmental Education

## 2 Environmental impact big picture

- 15 The DNP Group's business and environmental activities
- 16 Characteristics of business units and transition to environmental efficiency
- 17 Current Status of Environmental Impact
- 18 Table: Environmental activity targets and results

## 3 Achieving a Low-Carbon Society

- 19 Greenhouse Gas Emissions Reduction
- 20 Switching to Low CO<sub>2</sub> Emissions Fuels
- 21 Anti-global warming measures in transport and at our offices

## 4 For Reduction of Environmental Pollutants

- 22 Reducing Air Pollutants
- 23 Reducing Water Pollutants
- 24 Chemical Substances Subject to the PRTR Law

## 5 Building a Recycling Society

- 25 Reducing undesired material in manufacturing processes
- 26 Breakdown of undesired materials volume
- 27 Use of Recycled Resources
- 28 Environmentally-conscious materials procurement and products
- 29 Environmentally-conscious product develop policy and product lineup
- 30 Using Lifecycle Assessments (LCA), and the carbon footprint
- 31 Details of Carbon Footprint Calculation for the DNP Group CSR Report 2011
- 32 Environmental Label Certification

## 6 Realizing a society in symbiosis with nature

- 33 Biodiversity Efforts

## 7 Environmental Accounting

- 34 Basic Target and Calculation Items
- 35 Table (1) Environmental conservation costs (Categories corresponding to business activities)
- 36 Table (2) Environmental Conservation Benefits (1)
- 37 Table (2) Environmental Conservation Benefits (2) (3)
- 38 Table (3) Economic Benefits of Environmental Conservation Activities

# Message from the Director in Charge of the Environment

## For Realizing a Sustainable Society

Managing Director  
Chairman of the DNP Group Environmental Committee

**Yoshiki Nozaka**



The DNP Group is engaged in environmental conservation so as to pass on the blessings of a bountiful Earth to the generations that follow. We practice environmental management as required by our employee Code of Conduct, which states that we shall contribute to the creation of a sustainable society. We first began reporting on our efforts and results in that regard to our stakeholders in 1998 by publishing our Environmental Report. While we have been publishing the core data of our CSR Report on our website since 2007, in 2011 we are also launching this DNP Group Environmental Report, with greater content than the website edition.

We believe that the data in the Environmental Report must be marked by comprehensiveness, continuity, and reliability. The report is prepared according to the Japanese Ministry of the Environment's Environmental Reporting Guidelines (2007 edition) so as to ensure comprehensiveness and continuity, while to ensure reliability we submitted this report to the Japanese Association of Assurance Organizations for Sustainability Information, where it was certified with the Environmental Report Assurance and Registration Mark.

### Environmental conservation efforts

Please refer to page 18 for the results of our efforts to

achieve our fiscal 2010 environmental targets.

We achieved our targets for greenhouse gas emissions, per unit fuel use for transport, per unit waste emissions, sales of environmentally conscious products, and green purchasing. Nonetheless, we achieved only a 67.9% reduction in atmospheric emissions of VOCs, falling short of our target of 70%. We invested approximately ¥1 billion in installing and expanding VOC collection and processing equipment in fiscal 2010.

Despite making improvements since fiscal 2009, we also did not meet our targets for reducing the ratio of undesired material or for zero emissions. We did compose and issue a "Biodiversity Declaration," and are conducting biodiversity education for all employees via our network.

### Revising our environmental targets, and future development

The DNP Group Environmental Committee revised our environmental targets in March 2011. One important point of these revisions dealt with global warming. The disaster at the Fukushima nuclear power plant in the aftermath of the Tohoku-Pacific Ocean Earthquake has made efforts to reduce greenhouse gases even more important. Therefore, we have moved to the use of a comprehensive target.

Another point is waste reduction. The DNP Group treats items generated in our manufacturing other than products as undesired material. We are moving forward with efforts to improve the yield of valuable material from this undesired material. In order to make the results of these efforts easier to understand, we have adopted two categories, per unit waste emissions and zero emissions. In addition to these categories, we have also raised the targets for development and sale of environmentally conscious products and services, VOC emissions reduction, and green purchasing, so as to lift our efforts to the next level.

We have also developed our own energy monitoring system so as to enhance the DNP Group's efforts to reduce emissions of greenhouse gases. In addition to reducing energy losses through this system, we are also moving forward with developing high-efficiency, energy-conserving equipment, and are proceeding with planned installation and upgrading of equipment for energy conservation.

The DNP Group is making steady progress in environmental conservation. We are grateful for the continued support of our stakeholders, and welcome their opinions and guidance.

# Outline of the DNP Group

## DNP Corporate Profile (as of March 31, 2011)

**Company Name** Dai Nippon Printing Co., Ltd.

**Established** October 1876

**Capital** ¥114.464 billion

**Head Office** 1-1, Ichigaya-Kagacho 1-chome,  
Shinjuku-ku Tokyo 162-8001, Japan  
Tel: +81-3-3266-2111  
URL <http://www.dnp.co.jp/>

**Employees** 11,016 (Non-consolidated)/40,188 (Consolidated)

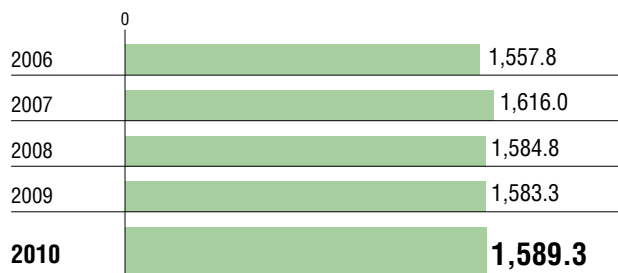
**Sales Office** 49 locations in Japan  
20 locations overseas (including local affiliates)

**Main Plants** 60 domestic plants  
12 overseas plants (including affiliates)

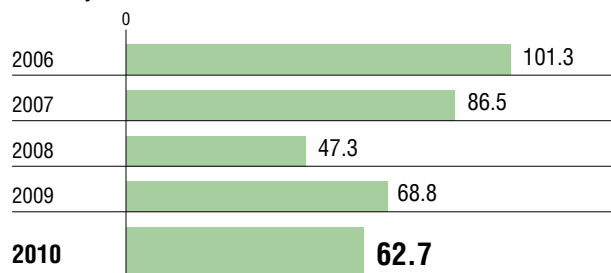
**R&D Facilities** 12 locations in Japan

## FY2010 Financial Data (FY ending March 2011)

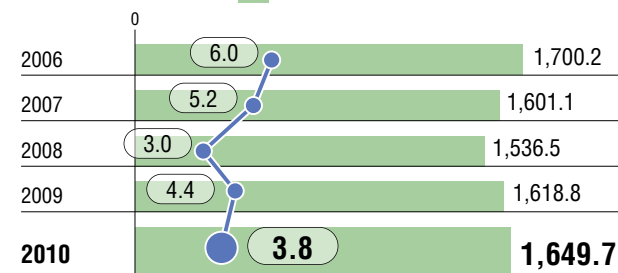
### Net Sales (Yen billions)



### Ordinary Income (Yen billions)

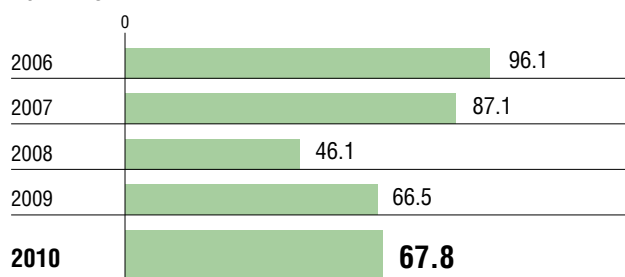


### Total Assets (Yen billions) / ROA (%)

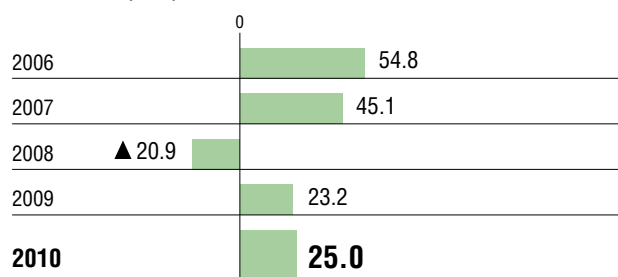


\*ROA is calculated using recurring profits.

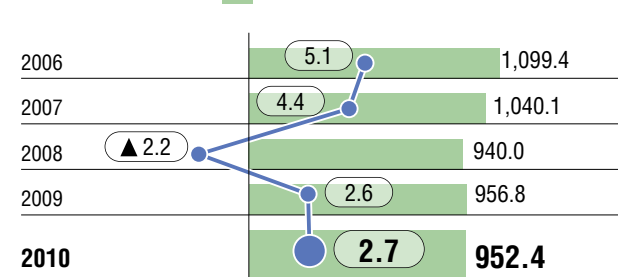
### Operating Income (Yen billions)



### Net Income (loss) (Yen billions)



### Net Assets (Yen billions) / ROE (%)



\*ROE: Return on equity is calculated on an owned capital and current net asset basis after deduction of share options and minority interest from net assets.

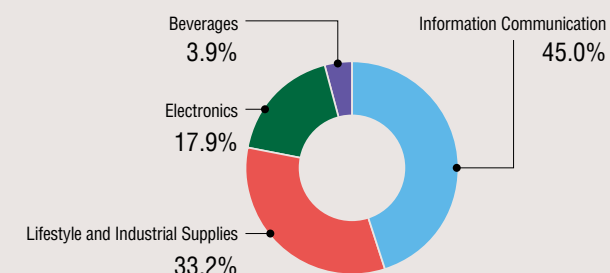
# The DNP Group's Fields of Business

The business of the DNP Group is made up of our Printing Operations and Beverages Operations.

\* **Printing:** We are developing our printing business across a broad range of applications. These include the Information Communication segment, made up of operations such as publishing/commercial printing, Smart cards, and network businesses; the Lifestyle and Industrial Supplies segment, which includes packaging, decorative materials, and industrial supplies; and the Electronics segment, which includes display products and electronics devices.

\* **Beverages:** We produce and market carbonated beverages, coffee, tea and other beverage products, mainly through Hokkaido Coca-Cola Bottling.

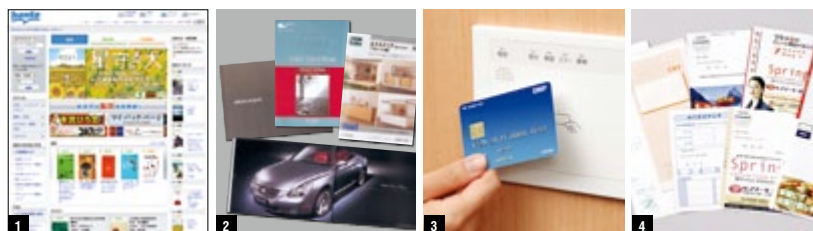
Sales distribution (FY ending March 2011)



## Printing

### Information Communication

Publication printing	Magazines, books, e-books, e-publishing <b>1</b> etc.
Commercial printing	Catalogs, pamphlets <b>2</b> , posters, flyers, POP, digital signage, etc.
Business forms	Passbooks, Smart cards <b>3</b> , IPS (Contract service for personal printing and sending through data entry) <b>4</b> , etc.



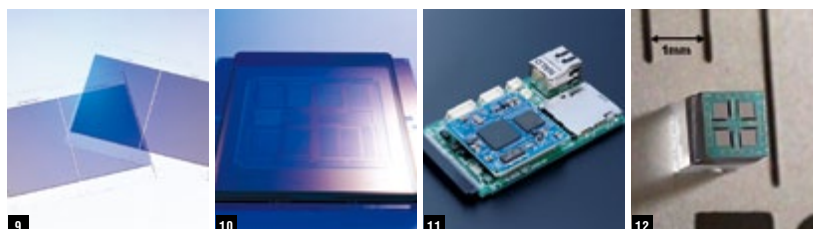
### Lifestyle and Industrial Supplies

Packaging	Container packaging materials <b>5</b> and sterile filling systems for food, beverage, confectionery, daily necessities, medical and other products
Lifestyle Materials	Exterior and interior finishing material <b>6</b> (flooring, decorative sheet metal; etc.) for home, office, rail cars, etc.
Industrial supplies	Optical film for flat-panel displays <b>7</b> , color ink ribbons, mono-chrome ink ribbons, solar cell materials <b>8</b> , etc.



### Electronics

Display Products	LCD color filters <b>9</b> , components for organic electroluminescence displays, etc.
Electronic devices	Semiconductor photomasks <b>10</b> , lead frames, package substrate <b>11</b> , MEMS products <b>12</b> , etc.



## Beverages

### Beverages

Production and marketing of beverages **13** through Hokkaido Coca-Cola Bottling.

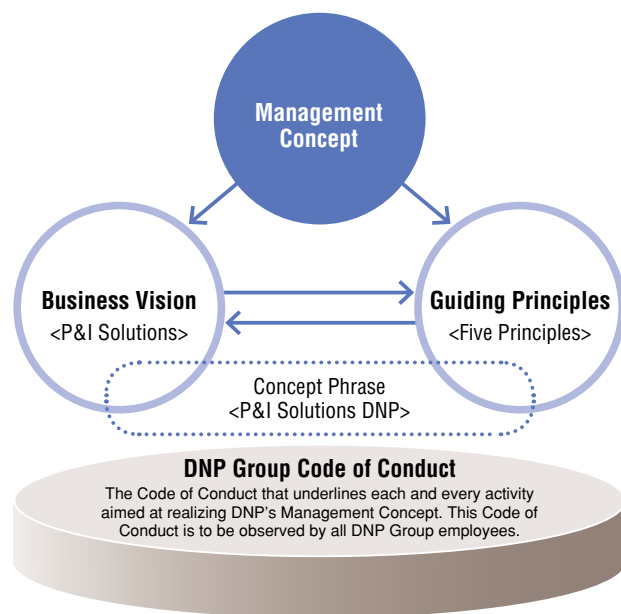


# DNP Group Vision for the 21st Century

The DNP Group Vision for the 21st Century consists of our Management Concept, Business Vision, and Guiding Principles, and is an expression of our basic philosophy of co-existence and co-development with society and the environment.

Our Management Concept is the DNP Group's social mission, and is an expression of the most important value held by all DNP employees. Our Business Vision and Guiding Principles provide direction for the business and employee conduct that will enable us to make our Management Concept a reality.

The DNP Group Code of Conduct establishes the behavioral standards for all activities undertaken in realizing our Management Concept. The Code is intended to ensure that all employees conduct themselves with integrity at all times.



## Management Concept

**The DNP Group will contribute to the emergently evolving society of the 21st Century.**

## Business Vision

### [P&I Solutions]

We will identify and solve the problems and issues that consumers and corporate clients face within the emergently evolving society by fusing our Printing Technologies (PT) and Information Technology (IT).

## Guiding Principles

### 1. Engage in *TAIWA* (Japanese for “dialogue”) with all persons concerned

Through *TAIWA*, we can identify the hopes and dreams of consumers and corporate clients, as well as uncover our own problems of which we had been unaware. By pursuing *TAIWA* on the identified problems and issues with various members of the company as well as people outside the company, we will be able to find solutions to these problems and issues.

### 2. Work with an independent and collaborative mind-set in order to solve problems

Acquiring specialized knowledge and skills, thereby becoming independent, allows us to sharpen our sensitivity for perceiving the problems and issues that surface within *TAIWA*. We should collaborate on these issues with other members while recognizing one another's sense of values and roles in order to propose solutions that will meet the satisfaction of our clients.

### 3. Challenge courageously, even in the face of difficult issues

As professionals, the expectation and confidence entrusted upon us are proportionate to the level of difficulty of a problem or issue. Therefore, we should approach problems and issues with a spirit of challenge and courage, which will enhance our professional skills all the more.

### 4. Act with integrity, fairness, and impartiality, at all times

We are, of course, obliged to abide by the law and conform to social codes. At the same time, we should also be considerate of others, speak honestly, and act with integrity. By conducting ourselves in this manner, we will be able to win the sympathy and trust of society, which will in turn augment the 'value' that we provide to society.

### 5. Be responsible for your own decisions and conduct

Each of us should be responsible for our own decisions and conduct. A strong sense of responsibility will not only lead to our colleagues' greater trust in us, but will also enable us to make objective and appropriate evaluations of our own work processes, which will assist us in making greater strides at our next opportunity.

# DNP Group Code of Conduct

The DNP Group has established the DNP Group Code of Conduct as the set of principles upon which our efforts toward realizing our Management Concept are based. The Code of Conduct is founded upon strong ethical principles in accordance with our own rules as well as the law of the land, and is built around themes we consider to be of mutual importance to both the DNP Group and society as a whole. The conduct of business with integrity at all times in accordance with this Code of Conduct is the foundation of our CSR activities.

<b>1. Contributing to the development of society</b>	We shall contribute to the development of society by offering new values through our business.
<b>2. Social contribution as a good corporate citizen</b>	We, as good corporate citizens living in harmony with society, shall deepen our ties with society and make social contributions through our solutions to various social issues and through our cultural activities.
<b>3. Compliance with the law and social ethics</b>	We shall contribute to the sustainable development of free and orderly market competition while assuming a fair and honest attitude at all times, in compliance with the law and social ethics.
<b>4. Respect for human dignity and diversity</b>	The dignity of humanity is of supreme importance to us. We shall respect diversity in the culture, nationality, creed, race, ethnicity, language, religion, gender, age and ways of thinking of all persons, and conduct ourselves in a disciplined manner.
<b>5. Environmental conservation and the realization of a sustainable society</b>	We are contributing to building a sustainable society so as to pass on the rich blessings of the Earth to future generations.
<b>6. Realization of a 'universal society'</b>	We shall work on the development and diffusion of easy-to-use functional products, services and systems so that everyone can live in safety and comfort, and thus contribute to the realization of a "universal society" in which all kinds of people can lead pleasant lives.
<b>7. Ensuring the safety and quality of our products and services</b>	We shall strive to win over the satisfaction and trust of consumers in general and of our corporate clients by ensuring the safety and quality of our products and services.
<b>8. Ensuring information security</b>	We shall strive to ensure thorough security measures to protect information assets entrusted to us by our clients as well as those retained by the DNP Group itself (industrial secrets, personal information, intellectual property, etc.).
<b>9. Proper disclosure of information</b>	We shall take the initiative to disclose information in a timely and appropriate manner so as to have our own business and activities properly understood by our various stakeholders with the goal of maintaining a high degree of transparency.
<b>10. Realization of a safe and vibrant workplace</b>	We shall exert ourselves for the maintenance and improvement of the safe and hygienic conditions of our workplace and shall always endeavor to seek ways to implement new improvements. At the same time, we shall respect working styles suited to the diversity of our employees and make efforts to create a safe, healthy and vibrant working environment.

As a manufacturer, the DNP Group is constantly considering how we can coexist with the global environment. We value the gifts of nature, and strive for coexistence with it so we can pass those gifts on to the next generation. Our efforts to do so are of primary importance to us now in the 21st Century, which is called the "Environmental Century."

We do our best for the planet day in and day out, as required by our DNP Group Code of Conduct, which states that "We shall strive to use resources effectively without destroying or polluting the global environment, so as to pass on a beautiful planet to the generations that follow."

**The DNP Group seeks to minimize the impact our businesses have on the environment and supports biodiversity, first by complying with environmental laws and regulations and also by recognizing the relationship that each of our business activities has with the environment. In this way we hope to create a sustainable society in a world with limited resources.**

1. Each member of the DNP Group establishes and periodically reviews its own environmental policies and environmental targets, and puts into effect continuous improvement of its activities and the prevention of environmental pollution.
2. For all construction projects, and before designing and commissioning new facilities, we carry out a full and detailed environmental survey to assess the impact that the project will have on the environment to make proper efforts to protect the environment. We shall also make aggressive efforts to use renewable energy.
3. When carrying out research, development, design, manufacture, and sales of a new product, we consider the impact of the product on the environment throughout its life cycle, including materials procurement, production, distribution, use, and disposal, especially in terms of energy conservation, resource conservation, and reducing the use of harmful chemicals.
4. When purchasing raw materials, stationery, and equipment, we choose items that are ecologically-friendly and easy to recycle.
5. In manufacturing a product, we aim to comply with environmental laws and regulations, and moreover we set up more stringent standards to reduce the emissions of pollutants into the air, watershed, and soil, and to prevent unpleasant odors, noise, vibration, and land subsidence. We are constantly improving facilities, techniques and manufacturing processes to promote the targets of energy conservation, resource conservation and the reduction of industrial waste.
6. When generating waste from business operations, we strive to achieve zero emissions by separating and recycling waste as much as possible.

DNP Environmental Committee (March 21, 2000, Revised March 16, 2010)

# 1 The foundation of our environmental activities

## Environmental Management Structure

All companies in the DNP Group work to create a sustainable society through efficient use of resources and efforts to prevent global warming and conserve the environment.

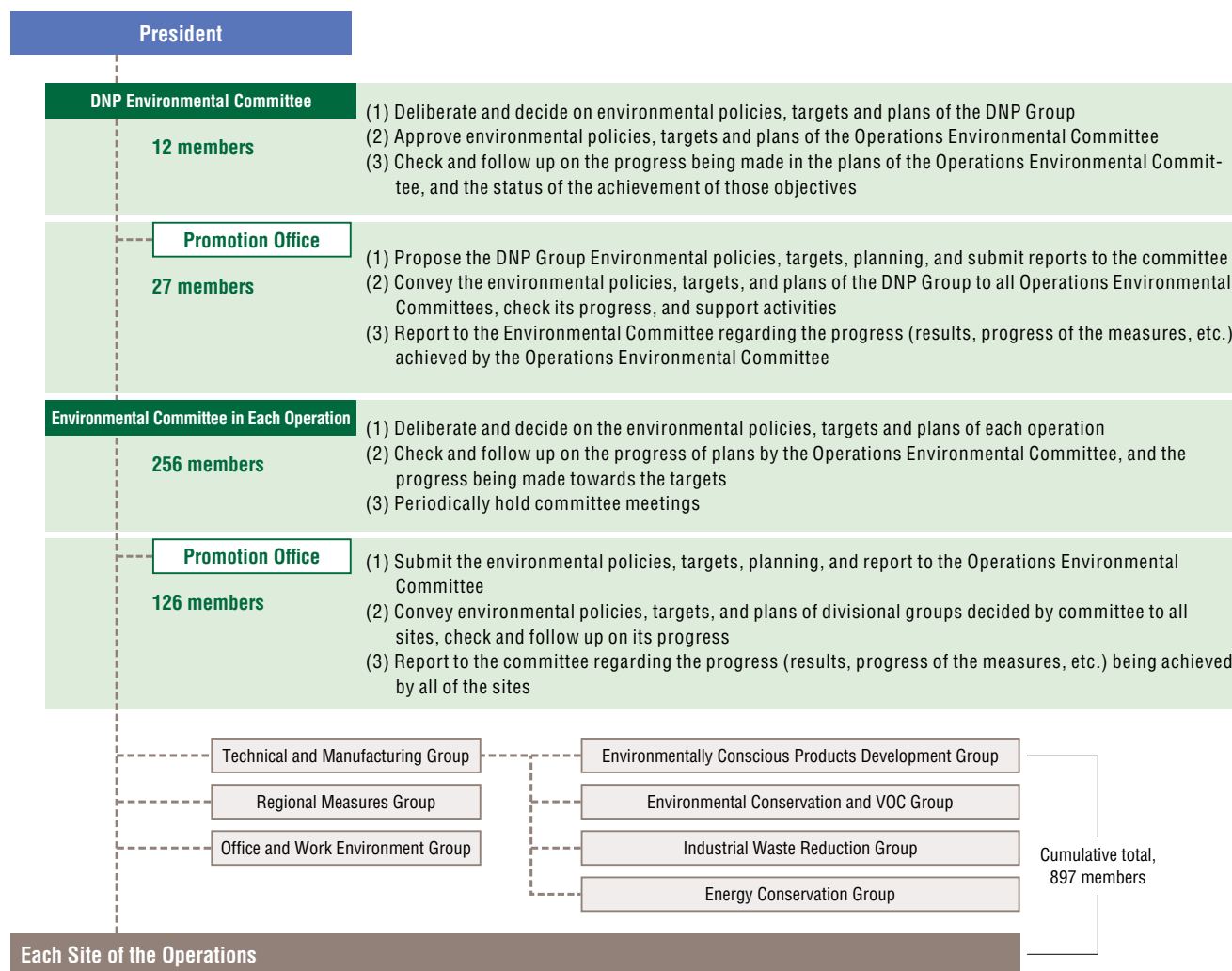
Our environmental management system consists of the DNP Group Environmental Committee, which is in charge of the management of the entire Group, and Operations Group Environmental Committees for each area of business. Each committee has its own promotional office.

### ● DNP Group Environmental Committee

This is made up of the directors of the basic organizations at company headquarters, who are responsible for the environment. The Committee deliberates and makes decisions concerning the environmental policies, objectives and plans of the entire Group, and monitors the progress of the plans and the status of the achievement of those objectives.

### ● Operations Group Environmental Committees

The decisions made by the DNP Group Environmental Committee are developed by the Operations Group Environmental Committees after considering the special characteristics of the particular sphere of business.

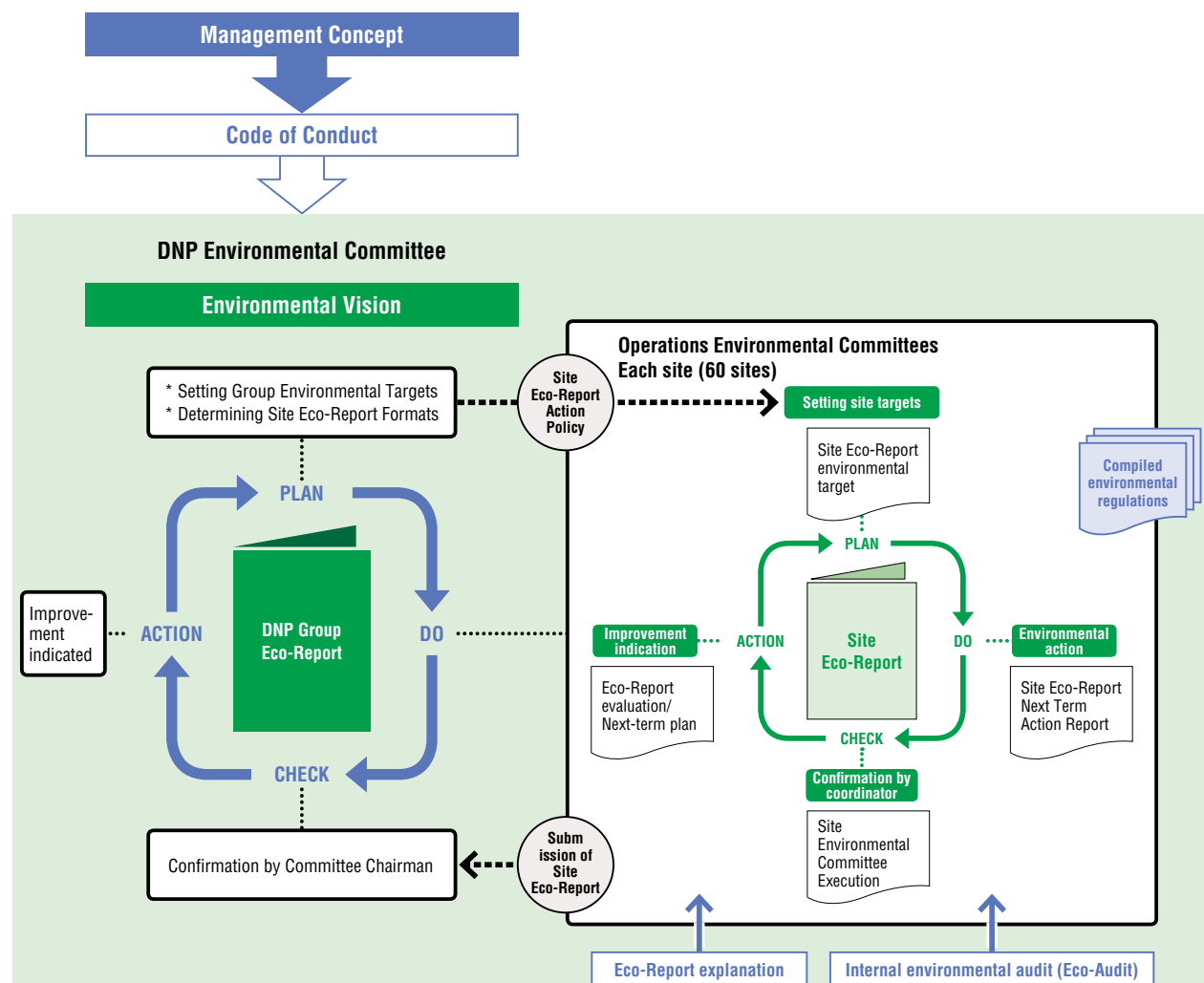


# 1 The foundation of our environmental activities

## Environmental Management System

The DNP Group created our own EMS (environmental management system) in 1993, prior to the publication of ISO14001. Our EMS uses the twin tools of eco-reports and site eco-reports, and executes the “Plan-Do-Check-Action” cycle every six months, setting the pace for the DNP Group environmental management efforts.

### Outline of the DNP Group Environmental Management System



# 1 The foundation of our environmental activities

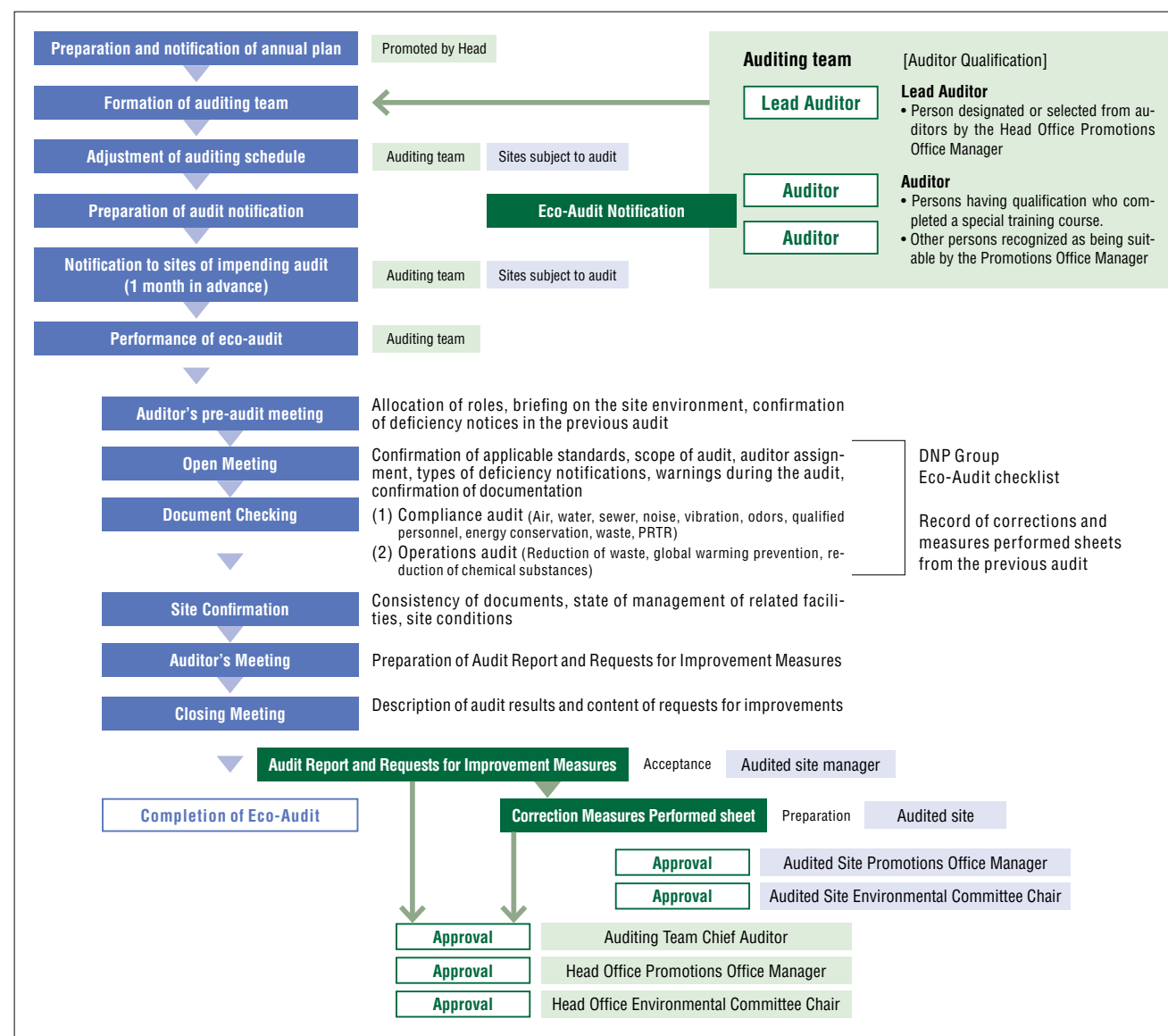
## Step in Eco-Audit and Contents

We began implementing “Eco-Audits” in 1996, so as to make our Environmental Management System (EMS) more effective. When an audit discovers that corrective measures are necessary, a Correction Measures Performed Sheet is issued to the site involved, and the response report is referred to the DNP Group Environmental Committee for approval.

### ● Special characteristics of eco-audits

	Eco-audit	ISO14001	
		External audit	Internal audit
Auditor specialization in products and processes	○	△	○
Independence of auditors in regard to the audit scope (at each site)	○	○	—

- (1) By bringing together their expertise, which is inherent in the products and manufacturing processes, and their independence regarding the sites, the auditors are able to obtain significant and objective results from their auditing.
- (2) In the Eco-Audit we place importance on on-site confirmation of actual items. In addition, we point out factors for which danger is projected and request preventive action when needed.
- (3) In addition to confirmation of compliance, we confirm the status of continuous improvements and corrections being made towards the achievement of the environmental targets. When necessary, we require audited sites to review plans.



Number of sites audited	63 sites
Number of attendees at sites	479 persons
Cumulative auditor numbers	127 persons
Cumulative auditing hours	286 hours

## ● Notification level and improvements required

Improvement required	➡	Submission of a written description of correction measures performed or improvement plans
Improvement consideration & examination	➡	Submission as necessary of a written description of results of consideration/examination or improvement plans

Indications of “improvement required” included items such as insufficient reporting at specific sites and other legal violations, but we confirmed that the necessary improvement measures are being taken in each case.

The areas indicated as requiring improvement are analyzed and actions are decided upon, and follow-up Eco-Audits will be carried out in fiscal 2011.

## Eco-Audit Contents

### Compliance Audit

#### (1) Document Audit

- Site location
- Type and number of statutory facilities
- Types of waste
- Energy consumption
- Exhaust and wastewater channels
- Changes in facilities, production processes since the last audit
- Applicable laws and their range
- State of improvement of notifications of deficiencies in previous audit
- State of submission of statutory notifications, reports, and changes
- Frequency of measurement, validity and traceability of measured data
- Changes in management personnel due to internal transfers

#### (2) On-site Inspections

- Site location and relationship with surrounding sites
- Conformity to statutory facility document audit (type, number, scale, etc.)
- State of management of individual facilities and equipment, existence of abnormalities
- Emergency containment in case of abnormality or emergency
- Site picture taking
- Appropriateness of actual work performed

### Operations Audit

#### (1) Confirmation of validity of site policy and established targets

- Performance in the previous term
- Consistency with DNP Group policies
- Continuity with last year's results
- Validity of established targets

#### (2) Confirmation of the validity of implementation programs

- Consistency between targets and programs
- Effectiveness of the programs
- Possibilities of the programs
- Possibilities of fulfillment of the programs
- Promotion system and schedule

#### (3) Confirmation of the achievement of implementation items, performance and targets

- Records of activities performed
- State of progression of the programs
- Effects of the programs and performance regarding indicators
- Achievement of targets

The DNP Group monitors publishes regular Eco-Reports which cover trends in environmental regulations, and also conducts Eco-Audits, so as to ensure full compliance with all laws and regulations. Our compliance efforts also include establishment of and strict adherence to our own voluntary standards (air, water, noise, vibration, odor) and voluntary guidelines (chemical substance management, soil contamination measures), which exceed what is legally required.

The DNP Group handles many chemicals in its production processes. We have drawn up a Chemical Substance Management Guide for chemical substance handling, and have set up levees and emergency shut-off systems to prevent liquids from over-flowing and installed two-tier holding tanks for the prevention of accidents at plants handling chemicals. We also stock up on materials that can be used during emergencies and hold emergency response drills to ensure the proper response in the event of an occurrence.

## ● Soil and Groundwater Contamination

The DNP Group conducts soil inspections based upon our voluntary management guidelines. When soil contamination is discovered, we file a report with the office of the governor or mayor in charge of that prefecture or city, and upon receiving instructions from the local authorities, we implement appropriate measures for removing the contamination.

In addition to continuing the purification of pump water at one site in FY2010, we also implemented the updating of tank equipment, leak inspections, and levee building so as to prevent soil contamination.

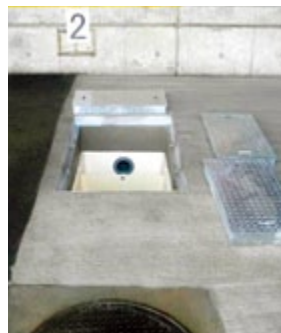
## ● PCB Storage

PCBs are currently in storage at 23 sites, with a total of 199 condensers and 20 transformers, for a total of 219. The PCBs are contained in electric equipment that was used in substations

facilities formerly used in our plants. The PCBs are stored in special containers in special storage rooms at each site, and are managed under the strictest of conditions in accordance with applicable regulations to ensure prevention of leakage or loss. They will gradually be disposed of as required by law according to the disposal plans for each region.

## ● Status of Legal Compliance

While we make all efforts to comply with environmental laws and regulations, over the past three years we have experienced five incidents in which water quality standards for wastewater were exceeded. There are no ongoing legal disputes involving environmental issues. We have unfortunately had some complaints from areas neighboring our plants concerning noise and odors. Whenever we receive such complaints, we respond promptly by launching a thorough investigation into the cause of the problem and working to make improvements and prevent recurrence.



Expand grease traps



Strengthening flow volume gauge checks and monitoring

\* Grease trap: This is a device for temporarily holding raw sewage, grease, and other pollutants contained in effluent from kitchens after separating and collecting it, thereby preventing discharge into the sewer. Work kitchens are required to be outfitted with grease traps (Construction Ministry Notice No. 1597)

## Occurrences (Cause, improvements, and recurrence prevention measures)

**September 11, 2008 Research & Development Center**  
**Water quality inspection by authorities** → Exceeded standards for suspended particle content; an Improvement Completion Report was submitted.

The cause of the problem was a large amount of fallen leaves in the reservoir and sludge accumulation in the drain, so cleaning was performed. Regular cleaning has been implemented to prevent recurrence. Measurement by the company afterwards has shown that standards are not being exceeded.

**January 15, 2009 Tokyo Plant, DNP Ellio**  
**Water quality inspection by authorities** → Exceeded standards for hexavalent chrome; an Improvement Completion Report was submitted.

The cause of the problem was diminished capacity of the curate resin in the wastewater treatment facilities, which is replaced regularly (every three months), so it was replaced. To prevent recurrence, the twice monthly measurement conducted by the operators was changed to once a week, and when the control values are found to have been exceeded the curate resin is replaced.

**October 29, 2009 Tanabe Plant, DNP Technopack Kansai**  
**Water quality inspection by authorities** → Measured levels of n-hexane (animal and plant fats) exceeded the standards.

The cause was thought to be insufficient grease trap capacity, so larger grease traps were installed as a preventative measure.

**February 4, 2010 Izumizaki Plant, DNP Technopack**  
**Malfunction of ink mixing equipment** → Ink leaked out of the industrial site via the rainwater gutters.

The cause was found to be an excess supply of solvent caused by a malfunctioning flow volume gauge, causing an overflow from the mixing tank. Flow volume gauge testing procedures were revised and the monitoring system strengthened as preventative measures.

**December 3, 2010 Tokyo Plant, DNP Fine Chemicals**  
**Storage of disassembled pieces of concrete** → Leakage from industrial site of rainwater exceeding regulatory pH standards was discovered through voluntary checking

The cause was the storage on-site of concrete pieces due to disassembly. Under the guidance of the authorities the concrete was removed, and afterward continuous monitoring has confirmed that levels are within the legal limits.

# 1 The foundation of our environmental activities

## Certification Acquisition Status

### ISO14001 Certificates

Site	Date Registration *1	Organization
Okayama Plant, Information Media Supplies Operations	Nov. 1997	JIA-QA
Mihara Plant, Display Components Operations	Jul. 1998	DNV
Okayama Plant, Lifestyle Materials Operations	Jul. 2000	JIA-QA
DT Fine Electronics *2	Mar. 1997	JACO
Sayama Plant, DNP Technopack	Dec. 2001	DNV
Kobe Plant, Lifestyle Materials Operations	Jan. 2002	JIA-QA
Tokyo Plant, DNP Fine Chemicals	Jan. 2002	JCQA
Ushiku Plant, IPS Operations	Mar. 2002	DNV
DNP Technopack Tokai	Mar. 2002	JCQA
Tien Wah Press(Singapore)	May 2002	PSB
Chikugo Plant, DNP Nishinippon	Jun. 2002	DNV
Sayama Plant, Information Media Supplies Operations	Oct. 2002	JIA-QA
DNP Media Techno Kansai	Mar. 2003	JIA-QA
Kurosaki Plant No.2, DNP Precision Devices	Jan. 2004	JCQA
Tokyo Plant, Lifestyle Materials Operations	Jan. 2004	JIA-QA
Kamifukuoka Plant, Electronics Devices Operations	Mar. 2004	AJA
Fukuoka Plant, DNP Nishinippon	Jun. 2004	DNV
Itabashi Area, DNP Logistics	Oct. 2004	AJA
Tokyo Plant, DNP Ellio	Jan. 2005	LRQA
Osaka Plant, DNP Ellio	Jan. 2005	LRQA
Warabi Plant, IPS Operations	Mar. 2005	DNV
Nara Plant, DNP Data Techno Kansai	Jun. 2005	DNV
Tien Wah Press (Johor Bahru)	Nov. 2005	PSB
Otone Plant, Display Components Operations	Mar. 2006	DNV
Kashiwa Plant, DNP Techno Polymer	Mar. 2006	JACO
Kansai Plant, DNP Techno Polymer	Mar. 2006	JACO
DNP Photomask Europe S.p.A.	Apr. 2006	CISQ

Site	Date Registration	Organization
DNP Fine Chemical Fukushima	Mar. 1997	JCQA
Akabane Area, DNP Logistics	Dec. 2006	AJA
Izumizaki Plant, DNP Energy System	Mar. 2007	DNV
DNP IMS Odawara	Mar. 2007	JQA
Yokohama Plant, DNP Technopack Yokohama	Dec. 2007	JIA-QA
Izumizaki Plant, DNP Technopack	Aug. 2008	DNV
Kasaoka Plant, DNP Fine Chemicals	Jan. 2009	JCQA
Mihara Plant, Opto-Materials Operations	May 2009	DNV
Okayama Plant, Opto-Materials Operations	May 2009	DNV
DNP Indonesia (Pulogadung/Karawang)	Aug. 2009	AJA
Shiga Plant, Information Media Supplies Operations	Nov. 2009	JICQA
Hokkaido Coca-Cola Bottling	Feb. 2010	SGS
DNP Color Techno Sakai	Mar. 2011	BV

### Eco Action 21 Certificates

Site	Date Registration	Organization
Tokyo Head Office, Dai Nippon Trading	Jan. 2006	IGES

### Green Key Certification Status

Site	Date Registration	Organization
Hakone Training Center 2	May 2010	FEE

\*1 Indicates the first registration date.

\*2 DT Fine Electronics registered as part of Toshiba Corporation (Semiconductor Company) (Kawasaki City, Kanagawa Pref.)

### Organization

#### [JIA-QA]

Japan Gas Appliances Inspection Association, QA Center

#### [DNV]

Det Norske Veritas AS (Norway)

#### [JACO]

Japan Audit and Certification Organization for Environment and Quality

#### [JCQA]

Japan Chemical Quality Assurance Ltd.

#### [PSB]

PSB Certification Pte Ltd. (Singapore)

#### [AJA]

Anglo Japanese American Registrars Ltd.

#### [LRQA]

Lloyd's Register Quality Assurance Ltd.

#### [CISQ]

Federazione Certificazione Italiana dei Sistemi Qualit Aziendali (Italy)

#### [JQA]

Japan Quality Assurance Organization

#### [JICQA]

JIC Quality Assurance Ltd.

#### [SGS]

SGS Japan

#### [BV]

Bureau Veritas Japan

#### [IGES]

The Institute for Global Environmental Strategies

#### [FEE]

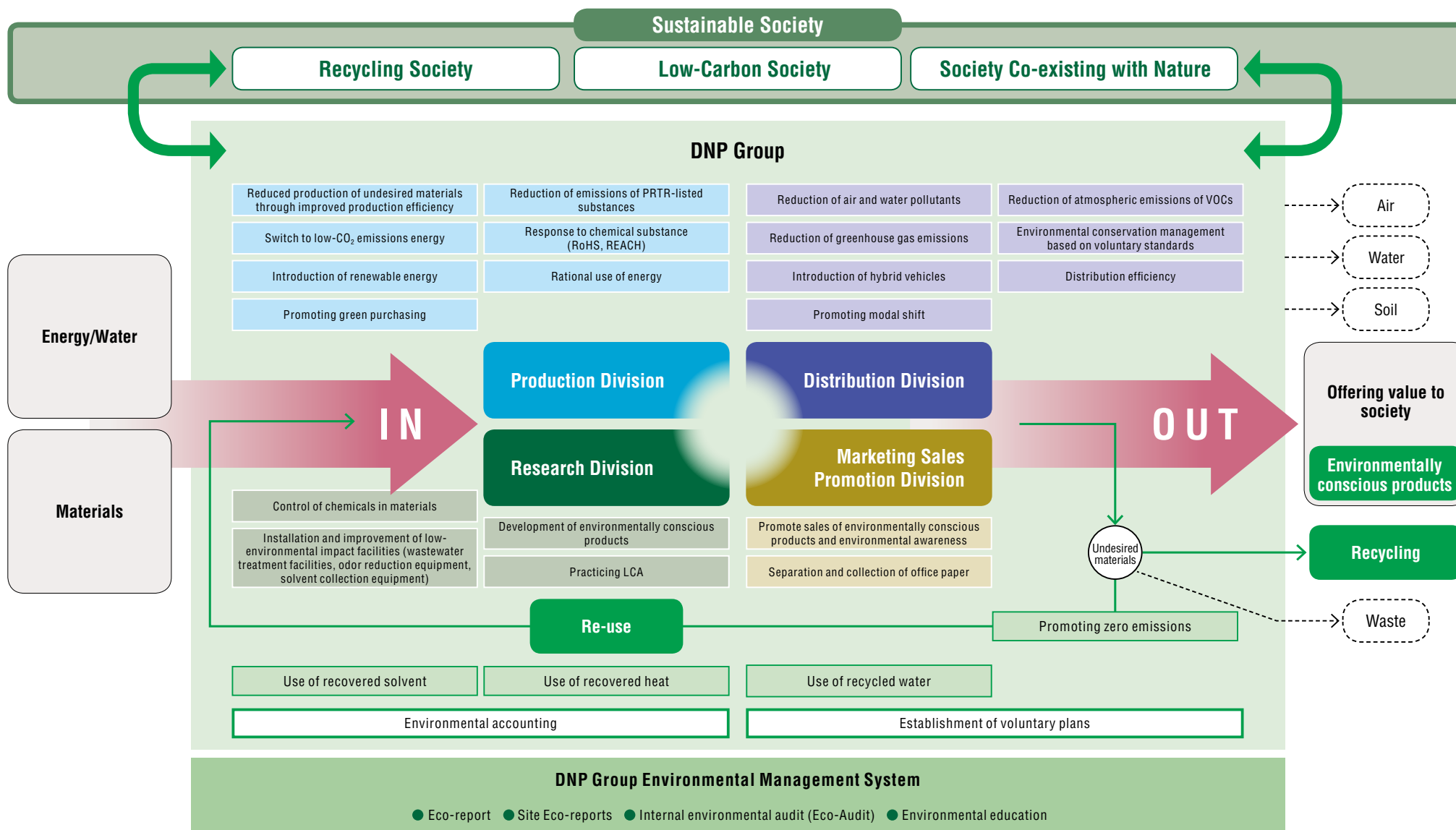
Foundation for Environmental Education

The DNP Group conducts environmental education programs according to level, working group, and function concerning the DNP Group's environmental conservation efforts, environmental knowledge and the content of environmental laws, and domestic and overseas trends concerning environmental issues. Our goal is for employees to gain the knowledge and management know-how necessary to improving employee environmental conservation consciousness and achieving our environmental goals.

Type of Training	Course Name/Description	Held In	Eligibility	Time of year	No. In attendance In 2010 (Total)
Education for New Recruits	<b>Environmental Activity Overall (required)</b> Basic environmental knowledge and conservation efforts of the DNP Group	1994	All new recruits	When joining the company	350 persons (6,280 persons)
Technical Seminar	<b>Environment/Chemicals (optional)</b> Environmental laws and regulations	1999	Technicians	At irregular intervals	175 persons (740 persons)
Network Learning	<b>Biodiversity (required)</b> Explanation of biodiversity and understanding of general efforts on its behalf	2010	All employees of the DNP Group	At irregular intervals	24,222 persons
Correspondence Course	<b>(optional)</b> Beginners class on ISO14001 and LCA Program	Scheduled every year	All employees of the DNP Group	Semiannual	—
Eco-Report Training	<b>Environmental Issues of the Group (required)</b> Domestic & international trends in environmental issues, revisions in environmental laws, degree of achievement of environmental targets, new targets, issues concerning specific sites	1993	Site members and factory related personnel of the operations' group environmental committee	Twice a year upon issuing the Eco-Report	—

## 2 Environmental impact big picture

# The DNP Group's Business and Environmental Activities



## 2 Environmental impact big picture

# Characteristics of Business Units and Transition to Environmental Efficiency

The DNP Group manufactures a variety of different products closely related to the everyday lives of consumers, with main materials such as paper, film, plastic, metal (iron, aluminum, etc.) and ink, as well as electronics.

### ● Characteristics of business units

#### Information Communications Segment

**a** Mainly manufactures magazines and other printed material through offset printing, uses a great amount of paper.

#### Lifestyle and Industrial Supplies Segment

**b** One of the biggest users of solvents in the DNP Group as it manufactures packaging, construction and other industrial materials and uses solvents for its gravure printing, coating and lamination.

#### Electronics Segment

**c** Uses and discharges a great amount of water in proportion to the rest of the Group in manufacturing LCD color filters and lead frames through its etching and photolithography technologies.

#### BC (Brother Companies)

**d**

### ● The DNP Group's transition to environmental efficiency

The DNP Group has evaluated our environmental efficiency by using JEPIX. Although our greenhouse gas emissions increased, VOC emissions, and landfill waste were reduced, so our environmental efficiency improved.

#### Q JEPIX (Environmental Policy Priorities Index for Japan)

This is a single-index environmental evaluation system developed in Japan, which measures general environmental impact levels according to a single "EIP" (environmental impact point) index. The JEPIX Forum, in which DNP participates, was established in 2003 for the implementation of JEPIX methods, as part of the MEXT 21st Century COE Program Committee (International Christian University).

## INPUT

**Main materials:**  
Percentage distribution by individual segment for paper (Unit: %)

2009	77	11	12
	<b>a</b>	<b>b</b>	<b>d</b>
2010	78	10	12

**Main secondary materials:**  
Percentage distribution by individual segment for solvent (Unit: %)

2009	90	10
	<b>b</b>	<b>d</b>
2010	91	9

**Utilities:**  
Percentage distribution by individual segment for water (Unit: %)

2009	7	13	68	12
	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
2010	6	13	68	13

## OUTPUT

**Emissions into the air:**  
Percentage distribution by individual segment for GHG emission amounts (Unit: %)

2009	22	34	34	10
	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
2010	20	35	36	9

**Emissions into bodies of water:**  
Percentage distribution by each segment for water discharge (Unit: %)

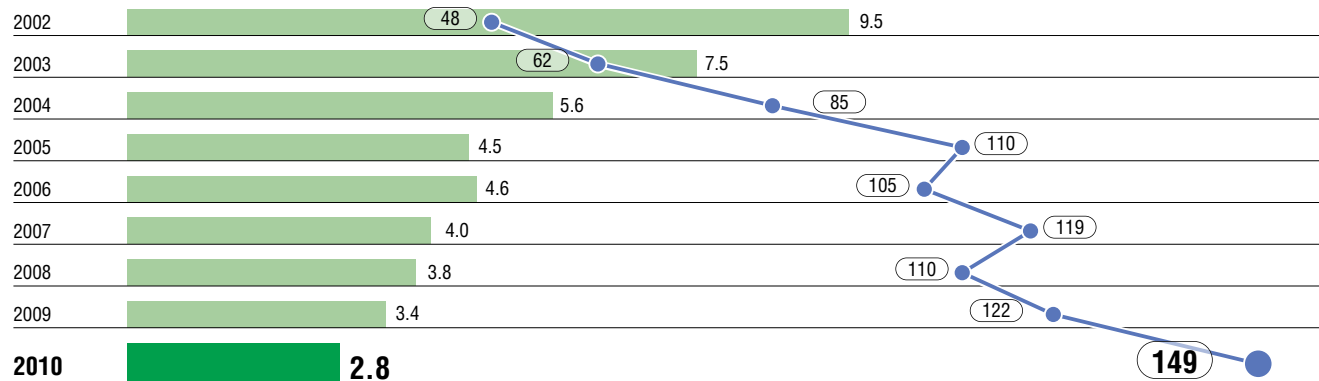
2009	5	12	72	11
	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
2010	5	11	72	12

**Undesired materials generated:**  
Percentage distribution by individual segment for undesired materials (Unit: %)

2009	44	27	17	12
	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
2010	44	28	16	12

**Environmental impact point** (Unit: EIP 1 billion) Bar graph

**Environmental efficiency** (Output/EIP) (Unit: %) Line graph



### Main materials (Unit: 1,000 tons)

	2009	2010	
Paper	1,855.6	<b>1,816.6</b>	(2.1% decrease)
Film	121.7	<b>121.8</b>	(0.1% increase)
Plastic	93.1	<b>107.0</b>	(14.9% increase)
Metal	43.5	<b>47.6</b>	(9.4% increase)
Ink	51.0	<b>52.0</b>	(2.0% increase)
Others	<b>117.7</b>	<b>100.4</b>	(14.7% decrease)

### Main secondary materials (Unit: 1,000 tons)

	2009	2010	
Solvent	21.2	<b>23.2</b>	(9.4% increase)
Acid and alkaline	14.8	<b>19.4</b>	(31.1% increase)

### Utilities

	2009	2010	
Electricity (million kWh)	1,356.7	<b>1,437.0</b>	(5.9% increase)
City gas (million Nm <sup>3</sup> )	115.7	<b>112.8</b>	(2.5% decrease)
LNG (million kg)	13.8	<b>14.5</b>	(5.1% increase)
LPG (million kg)	6.8	<b>6.6</b>	(2.9% decrease)
Fuel oil (kl)	3,200	<b>1,900</b>	(40.6% decrease)
Steam (TJ)	436	<b>520</b>	(19.3% increase)
Kerosene (kl)	710	<b>810</b>	(14.1% increase)
Water (million m <sup>3</sup> )	16.1	<b>15.9</b>	(1.2% decrease)

INPUT

### Product Manufacturing Process

<b>Information Communication</b>
Books and periodicals, commercial printing, business forms
<b>Lifestyle and Industrial Supplies</b>
Packaging, decorative materials, industrial supplies
<b>Electronics</b>
Displays, electronic devices
<b>BC (Brother Companies)</b>
Ink, beverages, etc

OUTPUT

### Current Status of Recycling in the DNP Group

	2009	2010
Recycled solvent (1,000 tons)	4.8	<b>4.6</b>
Usage ratio*1	1.2	<b>1.2</b>
Recycled acid and alkaline (1,000 tons)	3.4	<b>3.2</b>
Usage ratio	1.2	<b>1.2</b>
Recycled water (million m <sup>3</sup> )	530.6	<b>545.5</b>
Usage ratio	34.0	<b>35.3</b>
Vapor generated from waste heat recovery (tons)	178,700	<b>206,400</b>

\*1 Usage Ratio: This is a calculation of (input+ recovery and recycling)/input. It does not include vapor or solvent in ink.

\*2 GHG: Greenhouse Gases

\*3 Water discharge channels to which the Water Pollution Control Act applies.

### Emissions into the air

	2009	2010	
GHG*2 emissions (1,000 tons-CO <sub>2</sub> )	896	<b>903</b>	(0.8% increase)
NOx emissions (tons)	673	<b>697</b>	(3.6% increase)
SOx emissions (tons)	12	<b>11</b>	(8.3% decrease)
Atmospheric emissions of VOCs (tons)	9,011	<b>6,837</b>	(24.1% decrease)

### Emissions into bodies of water

	2009	2010	
Water discharged (million m <sup>3</sup> )	13.6	<b>13.5</b>	(0.7% decrease)
COD emissions (tons)	51.4	<b>48.9</b>	(4.9% decrease)
Nitrogen emissions (tons)	16.2	<b>13.4</b>	(17.3% decrease)
Phosphoric emissions (tons)	1.7	<b>0.4</b>	(76.5% decrease)

### Undesired materials generated (Unit: 1,000 tons)

	2009	2010	
Total amount of undesired materials	375.7	<b>355.0</b>	(5.5% decrease)
Waste emissions	62.7	<b>57.5</b>	(8.3% decrease)
Landfill waste amount	4.2	<b>3.2</b>	(23.8% decrease)

## 2 Environmental impact big picture

# Table: Environmental activity targets and results

Evaluation criteria: ◎ Target broadly achieved ○ Conducted activities but target not achieved △ Achieved target or in steady progress toward target ✕ No sufficient activities

Topic	Reference page	Targets through 2010	2010 results	Evaluation
Global warming prevention	P 19 - 20	To reduce GHG emissions by 10% from the 2005 level (fiscal 2020).	Emissions in 2005: 1.066 million tons Emissions in 2010: 0.903 million tons	15.3% decrease from that in 2005 ◎
		To reduce per unit CO <sub>2</sub> emissions by 15% from the 1990 level (fiscal 2010).	Per unit in 1990: 252 tons/100 million yen Per unit in 2010: 251 tons/100 million yen	0.4% decrease from that in 1990 △
Reduction of environmental impact incurred during transport	P 21	To reduce per unit fuel use for transport (amount of fuel used/sales) at 1% per annum, and 4% by fiscal 2010 compared to fiscal 2006.	Per unit in 2006: 2.15 kl/100 million yen Per unit in 2010: 1.61 kl/100 million yen	25.1% decrease from that in 2006 ◎
VOC	P 22	To reduce emissions of VOCs by 70% compared to 2002 by fiscal 2010.	Emissions in 2002: 21,312 tons Emissions in 2010: 6,837 tons	67.9% decrease from that in 2002 △
Reduction of industrial waste	P 25 - 26	To reduce per unit waste emissions (waste emissions/production) by 50% from the 2000 level (fiscal 2010).	Per unit in 2000: 0.312 tons/million yen Per unit in 2010: 0.137 tons/million yen	56.1% decrease from that in 2000 ◎
		To reduce undesired material generation by ratio (undesired material generation/total material input) at all sites by more than 3%, 35% from the 2000 level (fiscal 2010).	Generation rate of undesired materials in 2000: 17.7% Generation rate of undesired materials in 2010: 13.2%	25.4% decrease from that in 2000 △
		To achieve a 98% recycling ratio (recycled amount/total amount of undesired material generation) in the disposing of main raw materials (fiscal 2010).	Recycling rate in 2009 Overall 99.2% paper 99.8%, plastic 96.4%, metal 99.3%, glass 61.6% Recycling rate in 2010 Overall 99.3% paper 99.9%, plastic 97.2%, metal 99.0%, glass 60.6%	○
		To achieve zero emissions for the entire DNP Group (fiscal 2010).	Landfill waste rate in 2009: 1.1% Landfill waste rate in 2010: 0.9%	△
Development and sales of environmentally conscious products	P 28 - 29	To increase the level each year by 10% (over the previous year), and achieve 300 billion yen (fiscal 2010).	Sales of 312.1 billion yen in 2009 Sales of 318.0 billion yen in 2010	1.9% increase over that in 2009 ○
Green purchasing	P 28	To increase the rate of the products purchased according to the green purchasing standards of DNP, to 40% (fiscal 2010).	41.5% green purchasing rate for materials in 2009 39.9% green purchasing rate for materials in 2010	○
		To increase the purchase rate of environmentally certified products, such as those labeled with the Eco-Mark, of the total supplies (office supplies and equipment) to 50% (fiscal 2010).	51.2% green purchasing rate for materials in 2009 60.0% green purchasing rate for materials in 2010	◎
Environmental conservation	P 12	To keep the maximum concentration of air emissions subject to emissions regulations at 70% of the required standard or less.	95% achievement rate of targets for 2010 (voluntary target)	○
		To keep the maximum concentration of wastewater discharges subject to wastewater regulations at 70% of the required standard or less.	95% achievement rate of targets for 2010 (voluntary target)	○
		To keep the maximum concentration of odors at our site perimeters at 70% of the required standard or less.	94% achievement rate of targets for 2010 (voluntary target)	○
		To keep the maximum level of noise at our site perimeters at 95% of the required standard or less.	74% achievement rate of targets for 2010 (voluntary target)	△
		To keep the maximum level of vibration at our site perimeters at 95% of the required standard or less.	100% achievement rate of targets for 2010 (voluntary target)	○
Office environment	P 27	To increase the rate of the fractional recovery of waste paper to 70% of that for general waste.	83.5% rate wastepaper separation in 2010	◎
Environmental management system	P 9	To perform Eco-Audits at all sites.	Eco-Audits conducted at all sites in 2010	○

### 3 Achieving a low-carbon society

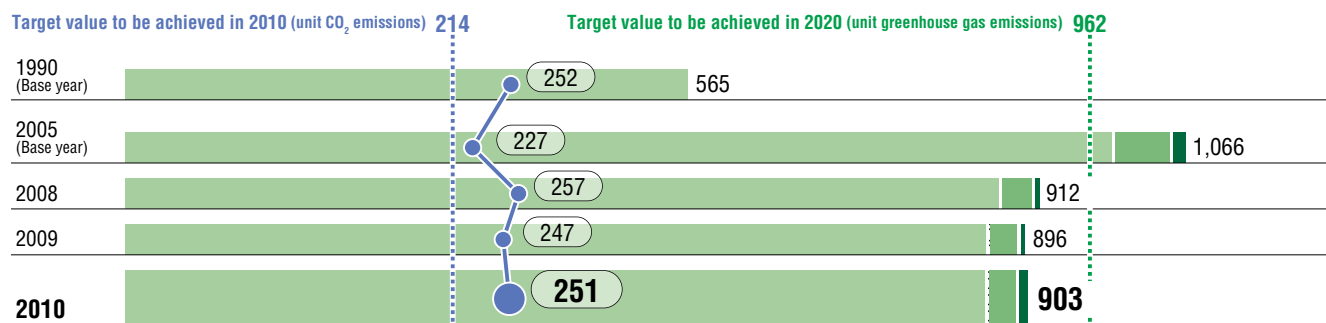
## Greenhouse Gas Emissions Reduction

The DNP Group's overall greenhouse gas emissions in FY2010 totaled 903,000 tons. This breaks down as follows: energy source CO<sub>2</sub> emissions, 872,000 tons; non-energy source CO<sub>2</sub> emissions 28,000 tons; methane converted to CO<sub>2</sub> emissions equivalent, 30 tons; N<sub>2</sub>O emissions, 640 tons. There were no emissions of SF<sub>6</sub>, HFCs or PFCs. Also, transport-related emissions were 2,850 tons.

Per-unit CO<sub>2</sub> emissions amounted to 251 tons-CO<sub>2</sub>/100 million yen, a 0.4% improvement over fiscal 1990.

Our main efforts to reduce CO<sub>2</sub> emissions included conserving energy used for air conditioning and power, switching to low emissions fuels, improving production line operations, efficient cogeneration, etc. In FY2010, we will continue our aggressive efforts to limit greenhouse gas emissions by continuing with the switch to low CO<sub>2</sub> emission fuels, introducing energy-saving equipment such as inverters, and improving production efficiency.

**Unit greenhouse gas emissions** (Unit: 1,000 tons CO<sub>2</sub>) Bar graph From left Energy source CO<sub>2</sub> emissions Non-energy source CO<sub>2</sub> emissions Other  
**CO<sub>2</sub> emissions unit** (Unit: tons-CO<sub>2</sub>/¥100 million) —●— Line graph



**Greenhouse gas emissions volume:** Electricity use, fuel use/combustion, burning of waste at plants, atmospheric emissions of HFC/PFC/SF<sub>6</sub> at plants, as well as greenhouse gas emissions due to the fuel use and running of DNP Logistics trucks are calculated according to the "Greenhouse gas emissions calculation and reporting manual Ver. 2.1" (Published June 29, 2007; Ministry of the Environment and Ministry of Economy, Trade and Industry). The coefficients used for FY2010 calculations use the values contained in the "Act on Promotion Global Warming Countermeasures" (March 31, 2010). Coefficients used for conversion of emissions due to electricity for FY2009 and FY2010 are according to FY2009 values (after adjustment) published by the Ministry of the Environment on December 27, 2010; for other years those published in the environmental reports of the electric companies are used, with all emissions volumes converted to CO<sub>2</sub>. Also, the "Guideline for Greenhouse Gas Emissions Calculation for Businesses (Draft Ver. 1.6)" (July 28, 2005, partially revised; Ministry of the Environment) is followed in recalculating the base year greenhouse gas emissions due to the change in our aggregate accounting range resulting from M&A.

**Per-unit CO<sub>2</sub> emissions:** This is direct CO<sub>2</sub> emissions volume from plants through energy use divided by production output. Production output indicates business activity, and added value is distributed to the direct amount according to the ratio of the energy amount for direct emissions and the energy amount for indirect emissions.



#### Promoting energy conservation through the DNP Energy Conservation Practice Council

The DNP Energy Conservation Practice Council is convened regularly as part of our energy conservation promotion strategy. In this program, working groups are composed of members from business segments sharing work methods and facilities. They assemble at a plant, and together conduct an energy conservation examination and share ideas, issues, and examples of efforts and improvements concerning energy conservation. This not only speeds up development of energy conservation precedents, but also is aimed toward creating new proposals for our own energy conservation measures. This program serves to reduce energy

use and speed up conservation efforts, and in addition is useful in developing personnel capable of conducting energy conservation inspections. The DNP Group will continue to work to prevent global warming through a lateral approach to shared issues, elimination of waste, and further energy conservation activities.

#### Council Meeting Outline

- Outline of the worksite / Introduction of energy measures
- Introduction of energy measures at other units (around two plants)
- Site confirmation: Utilities and production line
- After-meeting (taking a look at good aspects as well as issues at the worksite)
- Wrap-up



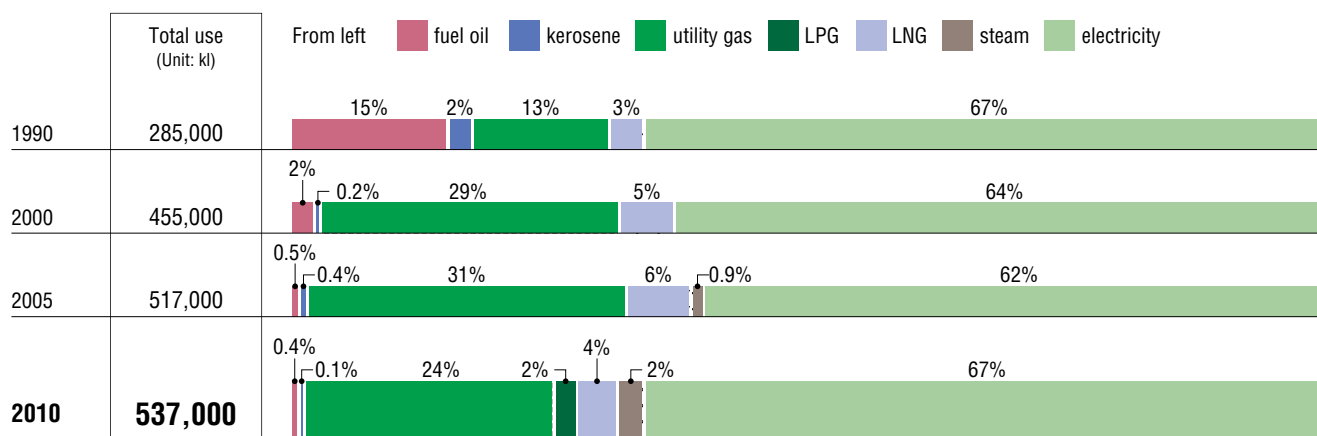
### 3 Achieving a low-carbon society

## Switching to Low CO<sub>2</sub> Emissions Fuels

The DNP Group is making progress in the switch to low-CO<sub>2</sub> emissions fuels so as to reduce emissions of greenhouse gases such as CO<sub>2</sub>.

We have been making the switch from diesel, kerosene, and similar high-CO<sub>2</sub> emissions petroleum fuels into low-CO<sub>2</sub> emissions utility gas and LPG (liquefied petroleum gas) since 1990, and plan to continue to do so.

#### Changes in fuel composition



#### Efforts at the DNP Media Techno Kansai Ono Plant



City gas governor equipment

At the Ono Plant we are mainly engaged in printing and binding catalogs and leaflets. We made the switch from LPG to city gas in August 2010 as an anti-global warming measure, which trial calculations showed would reduce CO<sub>2</sub> emissions by 700 tons/year. We will continue to pursue environmental measures and stop global warming by eliminating waste and conserving energy.

#### Employee comment • Takeshi Nishi

Technical Department  
DNP Media Techno Kansai Ono Plant



The Ono Plant was established in 1990, and in 1993 we were told that city gas was desirable, but a plan had not yet been executed. We continued to ask for city gas to be used at the Ono Plant for energy conservation and CO<sub>2</sub> emissions reduction purposes, and as a result a plan was drawn up in 2008, with the switch from LPG to city gas executed in August 2010.

All of us at the Ono Plant will continue to work to cut CO<sub>2</sub> emissions through energy conservation so as to contribute to solving global warming.

### 3 Achieving a low-carbon society

## Anti-Global Warming Measures in Transport and at Our Offices

#### ● Efforts in Transport

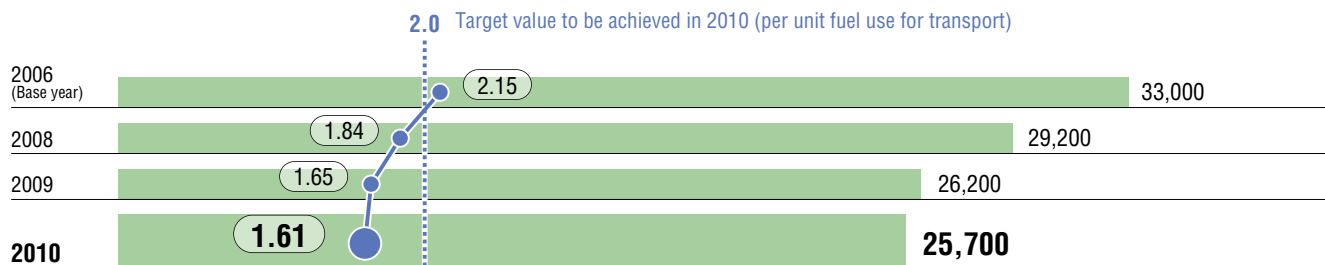
In FY2010, the Group's overall transport volume was 378 million ton-kilometers. 25,700 kiloliters of energy (converted to crude oil) was used in shipping, with CO<sub>2</sub> emissions of 65,300 tons. Per unit fuel use for transport (amount of fuel used/sales) was 1.61 kiloliters/JPY100 million, a reduction of 2.4% over FY2009.

We continued to implement distribution-related environmental impact reduction measures such as the optimization of vehicle distribution and transport routes, improved efficiency through digital tachometer installations, an idling-stop campaign, a modal shift to rail transport, and the introduction of hybrid vehicles.

#### ● Anti-Global Warming Measures at Offices and Homes

The DNP Group has been engaged in efforts to reduce CO<sub>2</sub> emissions both at the office and at home since 2005. In FY2010 cities around the globe turned off the lights on the same day at the same time as part of the WWF's (World Wildlife Fund) "Earth Hour," part of its "Global Climate Change Initiative," and the Japanese Ministry of the Environment also sponsored a "CO<sub>2</sub> Reduction/Lights Down Campaign." DNP's six facilities participated in both.

Energy usage volume (Unit: kl converted to crude oil) Bar graph / Per unit fuel use for transport (Unit: kl/¥100 million) Line graph



## 4 For reduction of environmental pollutants

# Reducing Air Pollutants

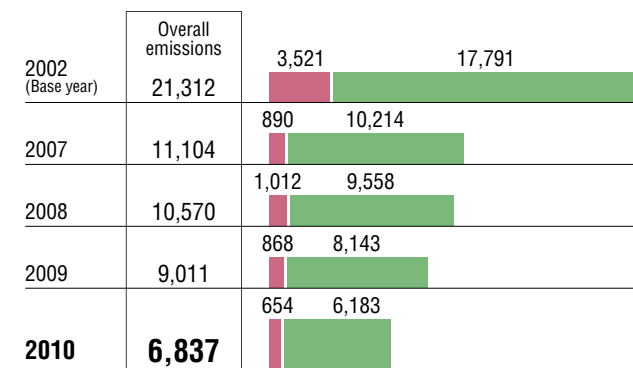
The Air Pollution Control Act regulates substances such as toxic air pollutants and ozone depleting substances, including sulfur oxide (SOx) and nitrous oxide (NOx), as well as volatile organic compounds (VOC). These substances have an impact on health and the global environment, causing problems such as urban ozone formation and ozone layer depletion. We at the DNP Group are working hard to monitor and reduce emissions of such substances.

### ● Reducing VOC Emissions

Inks, solvents, adhesives and cleaning solutions used in the printing process contain toluene and other VOCs (Volatile Organic Chemicals). The DNP Group's anti-VOC measures not only seek to regulate concentrations as required under the Air Pollution Control Act, but also to reduce emissions overall. We have been switching to substitute products with a lower environmental impact and installing equipment for VOC treatment and collection. These efforts have resulted in FY2010 in a 67.9% reduction in VOC emissions, to 6,837 tons, in comparison with 2002 (the benchmark year).

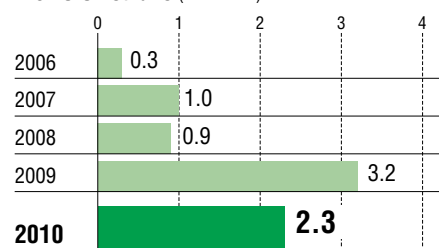
Trend in atmospheric emissions of VOCs (Unit: tons)

From left ■ VOCs covered by PRTR ■ VOCs not covered by PRTR



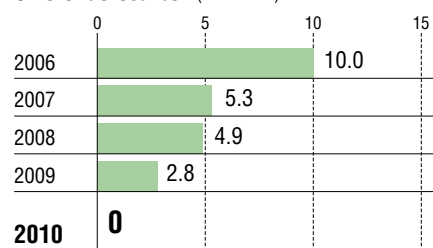
### Transition of Air Pollutant Emissions

Dichloromethane (Unit: tons)



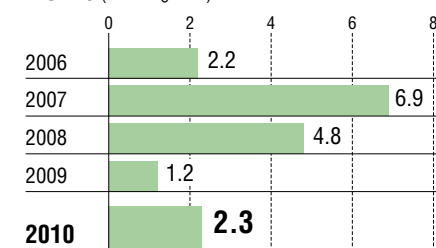
Due to the switch to water-based cleaners in our printing process, and in FY2010 our total atmospheric emissions fell from the 2001 level of 53 tons to 2.3 tons, a difference of 96%.

Chlorofluorocarbon (Unit: tons)



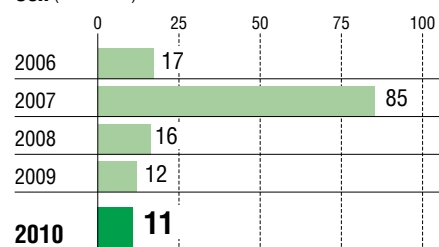
The ozone-depleting chemical HCFC-141b (1,1-dichloro-1-fluoroethane) is used as a cleaner, but due to our switch to substitutes our FY2010 emissions fell to almost zero.

Dioxins (Unit: mg-TEQ)



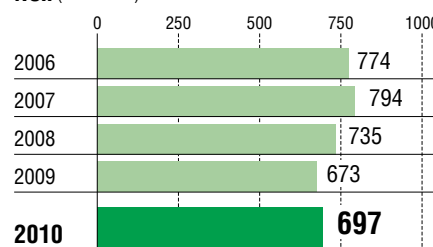
We totally eliminated small furnaces, for which burning control is difficult, and currently have six large-scale furnaces currently in operation, which is responsive to the 2002 regulations. FY2010 atmospheric emissions volume: 2.3 mg-TEQ.

Sox (Unit: tons)



Sulfuric acid is emitted through burning high-sulfur fuel oil and kerosene. We have continued to shut down boilers, and in FY2010 we reduced sulfuric acid emissions 8.3% over the previous year, to 11 tons.

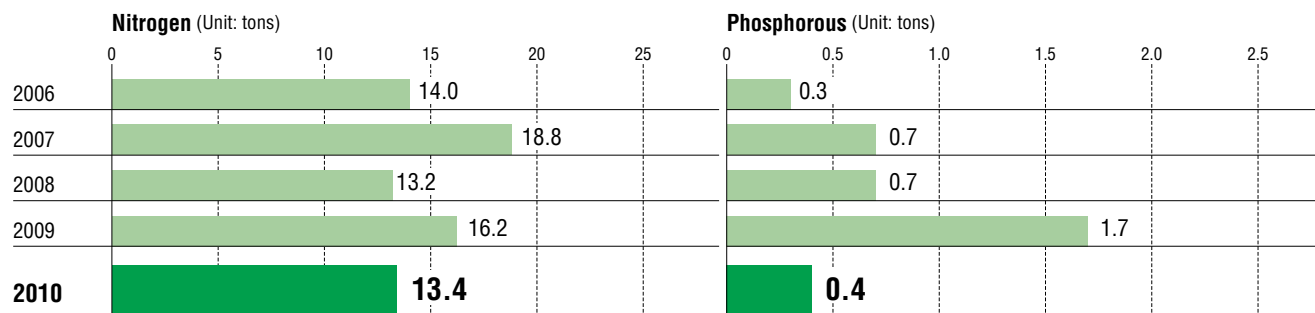
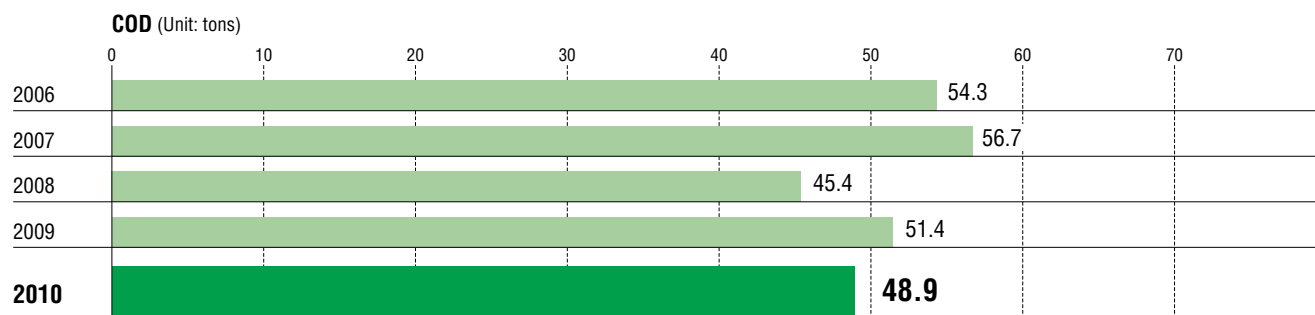
NOx (Unit: tons)



This is emitted when fuel is burned in production processes or when electric power is consumed. We have been working to reduce nitrogen oxide emissions by installing low NOx burners. NOx emissions in FY2010 amounted to 697 tons.

We detoxify and reduce the pollution load of the wastewater from our industrial processes and dining halls by using purification tanks and wastewater treatment equipment. We continued to conduct measures in FY2010, such as changing out the filtration membranes and absorbent materials in wastewater processing equipment, improving the wastewater treatment in the kitchens, and reducing the organic materials in rain runoff, but there was an increase in COD (chemical oxygen demand), nitrogen, and phosphorous.

## Transition of water pollutant emissions



## 4 For reduction of environmental pollutants

# Chemical Substances Subject to the PRTR Law

(Unit: kg/mg dioxin and dioxin-like compounds only-TEQ)

This data is compiled for PRTR-listed chemicals in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. (Listed up to 3 digits; however, up to 0.1 kg)

\* Limited to alkaryls of carbon 12 through 15 or their compounds

Substance	Handled	Consumed	Removed/ Consumed	Recycled	Emissions Volume			Transfer Volume	
					Atmosphere	Public waterways	Soil	Sewer	Off-site
N-butyl acrylate	1,300	—	979	242	81.7	—	—	—	—
Acetonitrile	35,600	—	7,640	—	2,030	—	—	—	25,900
2-Aminoethanol	60,100	—	—	—	—	—	—	40,700	19,400
Antimony or other compounds	1,280	1,030	—	246	—	—	—	—	—
Indium and its compounds	55,900	19,200	—	36,100	—	—	—	—	567
Ethyl-benzene	137,000	1,180	85,000	49,100	1,640	—	—	—	335
Ethylene glycol monoethyl ether	14,200	—	10,700	2,070	862	—	—	—	613
Ethylene glycol monomethyl ether	4,120	—	3,330	—	214	—	—	—	575
Ferric chloride	2,300,000	129,000	928,000	1,020,000	—	—	—	—	224,000
Epsilon-caprolactam	3,160	967	1,670	—	98.0	—	—	—	426
Xylene	164,000	1,390	108,000	44,500	2,620	—	—	—	7,730
Silver and its water soluble compounds	25,300	22,300	1,260	1,700	—	—	—	24.6	0.1
Chromium & chromium (III) compounds	71,800	32,300	22.3	14,600	—	—	—	1.2	24,800
Hexavalent chromium compounds	14,400	7,080	7,030	—	—	—	—	0.2	306
Cobalt and its compounds	2,190	1,290	—	170	—	—	—	—	731
Inorganic cyanide compound (except complex salts and cyanate)	2,230	—	456	—	264	—	—	—	1,510
2-Diethylaminoethyl alcohol	1,100	—	—	—	693	—	—	—	407
Dichloromethane	9,510	—	6,070	—	2,330	—	—	—	1,110
N,N- dimethylformamide	37,000	2,240	452	—	40.2	—	—	—	34,300
Dioxins and dioxin-like compounds	22.3	—	—	—	2.3	—	—	—	300
Water soluble copper salts (except complex salts)	498,000	84,800	107,000	302,000	—	—	—	1.2	4,190
Sodium dodecylsulfate	1,170	1,100	—	—	—	—	—	—	72.0
1,2,4-trimethylbenzene	10,700	—	4,110	6,370	208	—	—	—	—
1,3,5-trimethylbenzene	6,350	—	3,470	2,750	36.0	—	—	—	98.0
Toluene	12,700,000	1,490,000	7,210,000	2,330,000	642,000	—	—	—	1,030,000
Naphthalene	2,020	—	2,010	—	11.0	—	—	—	—
Hexamethylene diacrylate	6,020	4,760	—	1,260	—	—	—	—	—
Nickel	115,000	103,000	520	11,400	—	—	—	—	—
Nickel compounds	40,000	2,190	—	245	—	—	—	—	37,500
Carbon disulfide	2,670	—	2,670	—	—	—	—	—	—
Hydrazine	1,560	—	1,510	—	—	—	—	—	46.8
Pyridine	1,130	—	22.6	—	—	—	—	—	1,110
Bis (2-ethylhexyl) phthalate	9,900	6,780	1,610	—	94.0	—	—	—	1,420
N-hexane	6,330	—	2,900	219	304	—	—	—	2,910
1,2,4-Benzenetricarboxylic acid-1,2-anhydride	3,300	2,900	—	—	—	—	—	—	401
Poly (oxyethylene) = alkyl ether *	2,090	2,050	—	—	—	—	—	—	46.6
Formaldehyde	1,330	—	—	—	1,330	—	—	—	—
Manganese and its compounds	6,470	3,760	—	504	—	—	—	69.0	2,140
Methacrylic acid	3,070	2,980	—	—	11.3	—	—	—	74.9
Methacrylic acid 2,3-epoxypropyl	3,000	2,880	—	—	16.6	—	—	—	99.5
Methyl methacrylate	2,040	1,940	—	—	16.0	—	—	—	88.2
Methylenebis(4,1-phenylene) diisocyanate	1,630	1.6	—	—	—	—	—	—	1,620
Morpholine	6,970	4,650	1,450	—	40.0	—	—	580	240
Trityl phosphate	22,900	21,800	—	1,080	—	—	—	—	32.1
<b>PRTR-listed substances</b>	<b>16,400,000</b>	<b>1,950,000</b>	<b>8,490,000</b>	<b>3,820,000</b>	<b>655,000</b>	<b>—</b>	<b>—</b>	<b>41,400</b>	<b>1,430,000</b>

## 5 Building a recycling society

# Reducing Undesired Material in Manufacturing Processes

### Employee comment • Fujio Kitagawa

General Affairs Department, DNP Lifestyle Materials



At the DNP Lifestyle Materials Okayama Plant we make lifestyle materials for homes and other materials for all types of living spaces by using DNP's own EB coating technology. Our goal is to provide a comfortable lifestyle for everyone.

In FY2010 everyone at the plant joined in waste reduction activities to cut per unit waste and the ratio of undesired materials.

Our efforts to cut per unit waste included using Manufacturing 21 to improve production efficiency, and cutting the volume of waste by making thorough separation efforts to increase the amount of valuable material retrieved. As a result, we cut per unit waste by 25% in comparison to 2009. We also increased the amount of valuable materials, which achieving ratio of valuable material to undesired material of 44% in FY2010 (UP 25% compared to FY2009).

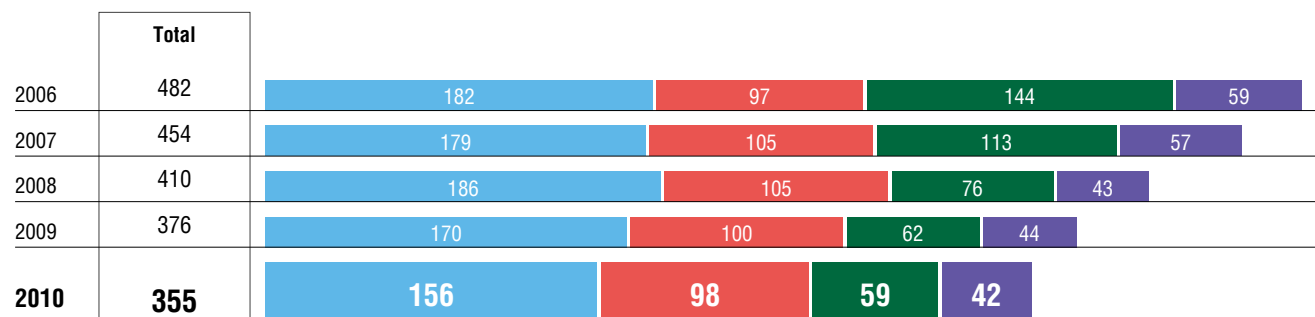
We pushed daily material loss management and leftover ink reuse programs, which are heavily focused on design costs, in our efforts to reduce the ratio of undesired material generation. By using raw materials effectively, we achieved a reduction of 18% in comparison with FY2009.

We will also move forward this year with efforts to cut losses of raw materials further, and to increase the volume of valuable materials.

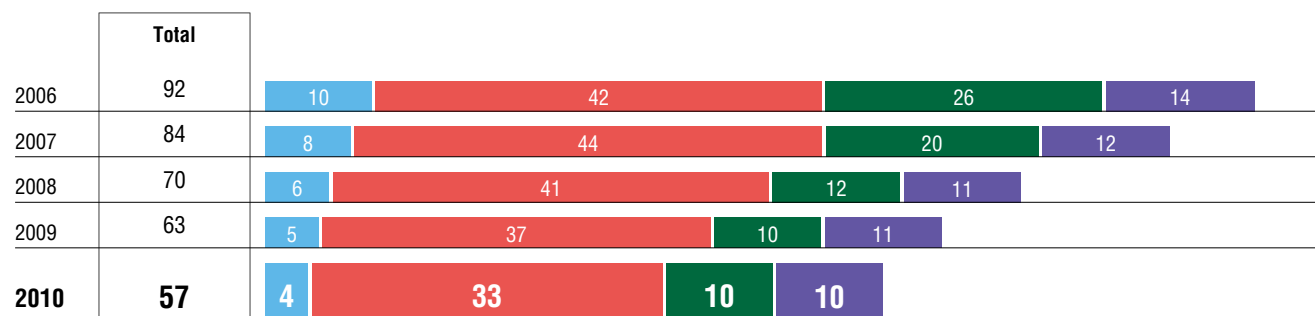
\*EB coating technology is the use of electron beams (EB) to layer and cross-link resin (liquid) to make strong wear and sun-resistant film (solid).

From left ■ Information Communication ■ Lifestyle and Industrial Supplies ■ Electronics ■ Other segments

### Transition of undesired material generation (Unit: t)



### Transition of waste emissions (Unit: t)



### Production 21

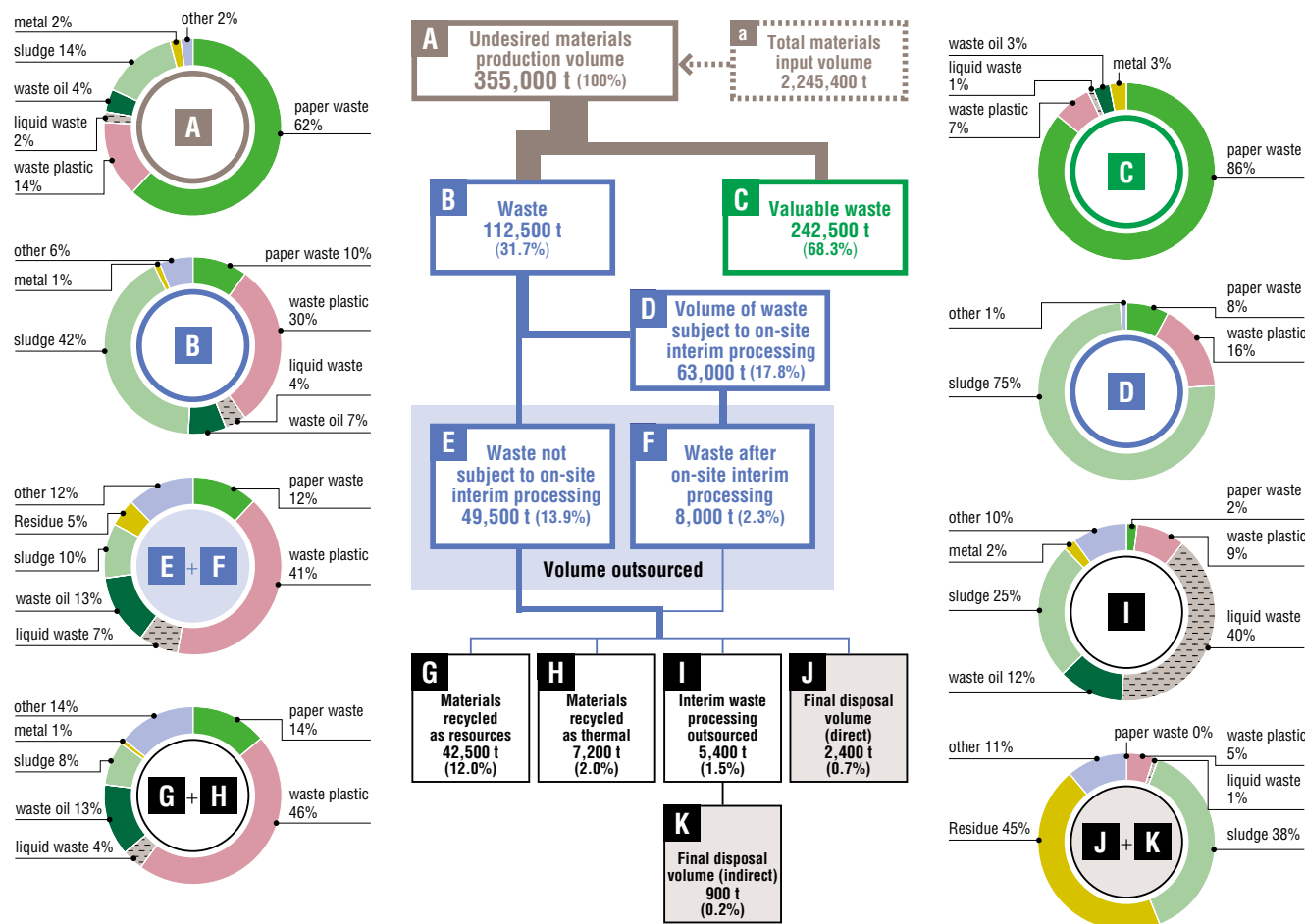
This is a Group-wide project to create a muscular manufacturing structure responsive to changes in the marketplace, with the goal of realizing the DNP Group's Vision for the 21st Century. We are creating a manufacturing structure capable of constant improvement and continuous, sustainable strength, so as to improve profitability and asset efficiency in our manufacturing.

## 5 Building a recycling society

# Breakdown of Undesired Materials Volume

We use waste per unit of production (waste emissions ( **E** + **F** ) /production volume) and the undesired materials production ratio (volume of undesired materials/ materials input volume) as productivity indicators, and incorporate it in “Production 21”. Waste per unit of production in FY2010 was 0.137t/¥1 million, which represents an improvement over 0.151t/¥1 million in FY2009. This is mostly due to the reduction of waste volume through extraction of valuable materials such as waste plastic and oil. Our targeted 56.1% reduction in comparison to FY2000 has been achieved. At the same time, the undesired materials production ratio was 13.2% due to the switch to small lots and other factors, which is better than the 13.7% in FY2008. While there has been a 25.4% decrease since FY2000, we have not reached the targeted 35%.

We use the recycling rate as the indicator for undesired materials reuse promotion, with the goal being zero emissions. Zero emissions means efforts to bring the landfill waste amount ( **J** + **K** )/undesired materials production volume ( **A** ) to 0.5% or less, and while the rate for the Group overall in FY2010 was 0.9%, we have yet to achieve 0.5%. 50 out of 60 sites have achieved zero emissions. We have also achieved a recycling rate of 99.3%, despite low rates for waste plastic (97.2%) and glass waste (60.6%).



**Production output:** This shows the output from our business activities, and uses the added value amount.

**Volume of undesired materials:** The volume of undesired materials, which excludes undesired materials originating as primary raw materials not used by the Electronics Segment and DNP Data Techno.

**Recycling rate:** Ratio of effective use through the processing of undesired materials originating as primary raw materials [( **C** + **G** + **H** ) / **a** ]; however, the amount of paper and plastic for which volume has been reduced through intermediary use in on-site processing equipment (heat recovery furnaces) ( **D** - **F** ) is added.

## 5 Building a recycling society

## Use of Recycled Resources

### ● Office Paper Recycling

We make serious efforts to separate and collect paper discarded from offices. Our rate of office paper recycling was 83.5% in FY2010, meaning that we are continuing to meet our targets.

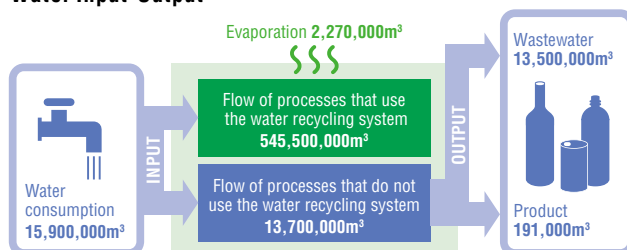
The business of the DNP Group is deeply connected to paper, and we have been collecting data about paper separation and collection for some time. Data was gathered at 34 sites in FY2010.

### ● Use of Recycled Water

We are working hard to conserve water resources by recycling the water we use in cleaning our products, heating and cooling our production equipment, and air conditioning our buildings. The majority of our plants save water by using a closed system for repeatedly using water rather than discharging it. We used 545.5 million m<sup>3</sup> of recycled water in FY2010. Our water usage ratio was 35.3-fold.

We are also making effective use of rainwater in our office buildings and other areas. We used 10,800 m<sup>3</sup> of rainwater in FY2010 for toilet flushing and watering our grounds.

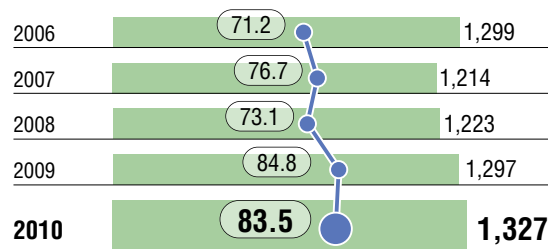
#### Water Input-Output



\* Hokkaido Coca-Cola Bottling and DNP Fine Chemicals use it in products.

Amount of used paper collected (Unit: tons) Bar graph

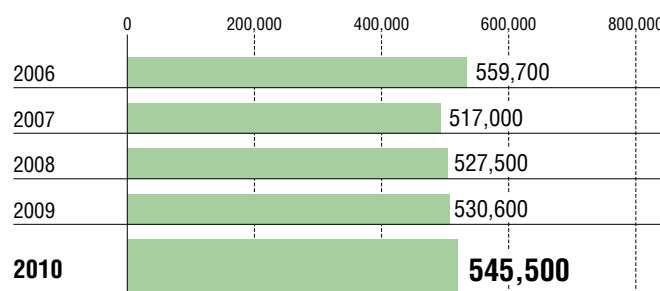
Used paper collection rate (Unit: %) Line graph



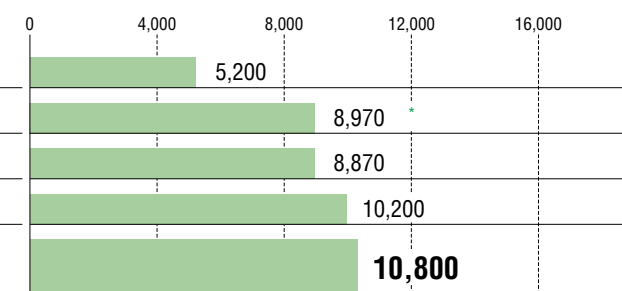
Waste paper collection				General waste	Waste paper collection + general waste amount	Number of sites
Cardboard	Magazines	Newspapers	High quality paper			
177	1,006	34	82	526	1,825	30
165	905	43	101	369	1,583	30
162	874	48	139	449	1,672	34
262	913	28	94	233	1,530	32
336	874	29	88	262	1,589	34

Wastepaper collection rate: Wastepaper collection/(wastepaper collection + general waste amount (excluding cans, bottles, and garbage)) x 100

#### Trends in recycled water use (Unit: 1,000m<sup>3</sup>)



#### Transition in the use of rainwater in office buildings, etc. (Unit: m<sup>3</sup>)



\* The Gotanda Building also began using rainwater in FY2007.

Recycled water: The total volume of water that flows through the heat exchange or cleaning equipment in our closed-cycle system in one year.

## ● Promoting Green Purchasing

We engage in Green Purchasing in selecting and buying materials, parts, provisions and equipment, and office supplies that cause the least possible environmental impact from the upstream production processes on, so as to reduce the environmental impact of DNP's products. We also give priority in materials and equipment purchasing to suppliers that take an aggressive approach to environmental conservation.

## ● Management of Chemical Substances in Product Materials

As part of DNP's efforts to improve product safety, in response to laws and regulations such the RoHS Directive and REACH Regulations adopted by the EU, as well as client demand, we monitor and manages chemicals contained in the materials we purchase.

In 2004, we conducted a study of the amounts of chemicals contained in materials we purchase from suppliers and used the results in creating a chemical content database. This has allowed us to monitor the chemicals used in each product, thereby strengthening our controls. In addition, it has created a mechanism for the manufacture of products according to established standards.

We require a report from the supplier in the form of an examination slip with every new purchase; in addition, when we start trading with a new supplier we explain the use of the chemical content examination slip when the trading account is opened, and request that one be submitted with each delivery.

### Q RoHS Directive

Directive on the restriction of the use of certain hazardous substances in computers, communications equipment, home electronics, and other electrical and electronic equipment.

### Q REACH Regulations

Regulations requiring the registration of chemical substances made and used in the EU.

## ● Development and Sales of Environmentally Conscious Products

The DNP Group created the Environmentally-Conscious products Development Guidelines to direct from the design stage the creation of environmentally-conscious products, so as to reduce the environmental impact of our products throughout the lifecycle.

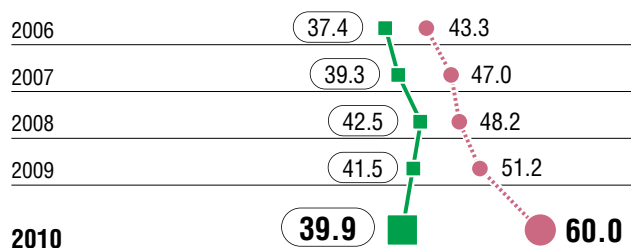
Our sales of environmentally-conscious products reached ¥318.0 billion in FY2010 (¥312.1 billion in FY2009). Sales of optical film for displays increased.

### Q Lifecycle

This covers every aspect of the lifetime of a product or service, from the point where the material resources that go into its manufacture are extracted from the Earth through production, distribution, use and finally to when any waste is returned to the Earth.

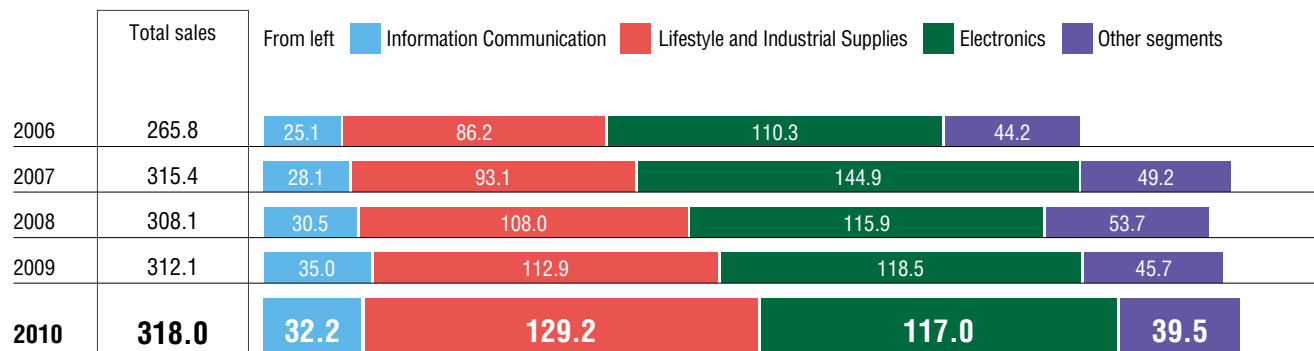
Purchasing rate for environmentally conscious products (Unit: %)

—■— General supplies    .....●..... Raw materials



\* Data for 37 sites under the direction of the DNP Purchasing Division are included in the aggregate calculation.

Sales of environmentally conscious products (Unit: 1 billion yen)



## 5 Building a recycling society

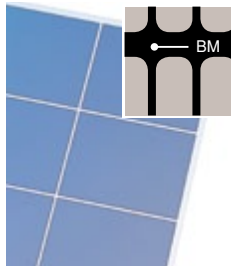
# Environmentally Conscious Product Development Policy and Product Lineup

### 1 Reduction of environmental pollutants

Elimination of ozone layer-damaging substances, heavy metals, volatile organic compounds, and prevention of release into the environment of nitrous oxides and other substances.

#### Product lineup • BM Color Filters

These are color filters using a black matrix (BM) made of resin instead of metal. Development of this product has resulted in reduced environmental impact and cost.



### 2 Resource and energy conservation

Reduce the use of metals and fossil fuels, Energy-conserving products and systems.

#### Product lineup • Elbow Pouch

Our Elbow Pouch is a refill-use pouch with improved opening and pouring features. It is useful in saving bottle resources, and post-refilling volume is reduced.



### 3 Sustainable harvesting of resources

Utilize natural resources in a sustainable way.

#### Product lineup • HI-CUP

This is an insulated two-layer cup made up of the cup itself and a sleeve. Post-use volume is reduced, and it can employ recycled paper.



### 4 Long-term usability

Consider the ease of repair and parts replacement, length of maintenance and repair service, and the expandability of functions.

#### Product lineup • Safmalle

Safmalle is our line of olefin-based decorative sheets for construction or decorative use, which meet the need for "healthy," "hygienic," and "safe" living space creation.



### 5 Reusability

In the case of sites and parts, considerations regarding disassembly, cleaning, and refilling; establishment of a collection and reuse system that is easy for the purchaser to use.

#### Product lineup • Peel-off Shipping Labels

These are shipping labels that are easily peeled off of packing paper or cardboard. The labels are one-ply, saving paper, and they make the recycling of cardboard and other packaging easy because they peel off cleanly.



### 6 Recyclability

Are the materials used in the product easy to recycle? Does the design allow for easy breakdown, disassembly, and separation of materials? Is there a collection and recycling system that is easy for the purchaser to use?

#### Product lineup • Environmentally Conscious Calendars

These calendars are made with recycled paper and low environmental impact ink. No metal or plastic need be removed post-use, because neither is used in their production.



### 7 Use of recycled materials, etc.

Use as many collected and recycled materials and parts as possible.

#### Product lineup • Magazines and Pamphlets Using Recycled Paper

These are printed materials that use composites of used paper, such as used magazines and newspapers. Not only do they require fewer paper resources, but the use of low environmental impact soy ink and non-VOC ink is increasing.



### 8 Ease of treatment and disposal

Attempt to place as little burden as possible on incinerator facilities and landfill sites.

#### Product lineup • IB (Innovative Barrier) Film

This packaging-use clear cling film which cuts dioxin use because it is non-PVC. It is widely used in the packaging of food, toiletries, or daily items requiring a barrier.



## 5 Building a recycling society

### ● Assessment and Development of Products Using LCA

DNP has introduced LCA (Lifecycle Assessment), which evaluates the environmental impact of a single product over its entire lifecycle, and seeks ways to make improvements. The LCA system has been incorporated into product development.

Recently, LIME2 (second version of Lifecycle Impact assessment Method based on Endpoint modeling), which is based on detailed information gained through LCA methods, has come to be used, and we are conducting assessment research concerning biodiversity and global warming.

When we conducted an assessment concerning the use of water resources, the result was a “LIME2 Assessment of Filling Methods in Aseptic Filling Systems for PET Bottles.” This topic was presented at the LCA Japan Forum.

#### Q Life-Cycle Assessment (LCA)

This is a method for quantitatively ascertaining and evaluating the environmental impact of a product over its entire lifetime, from resource extraction through distribution, consumption, and disposal through recycling.



Seminar at the LCA Japan Forum (July 6, 2010)

### ● Carbon Footprint

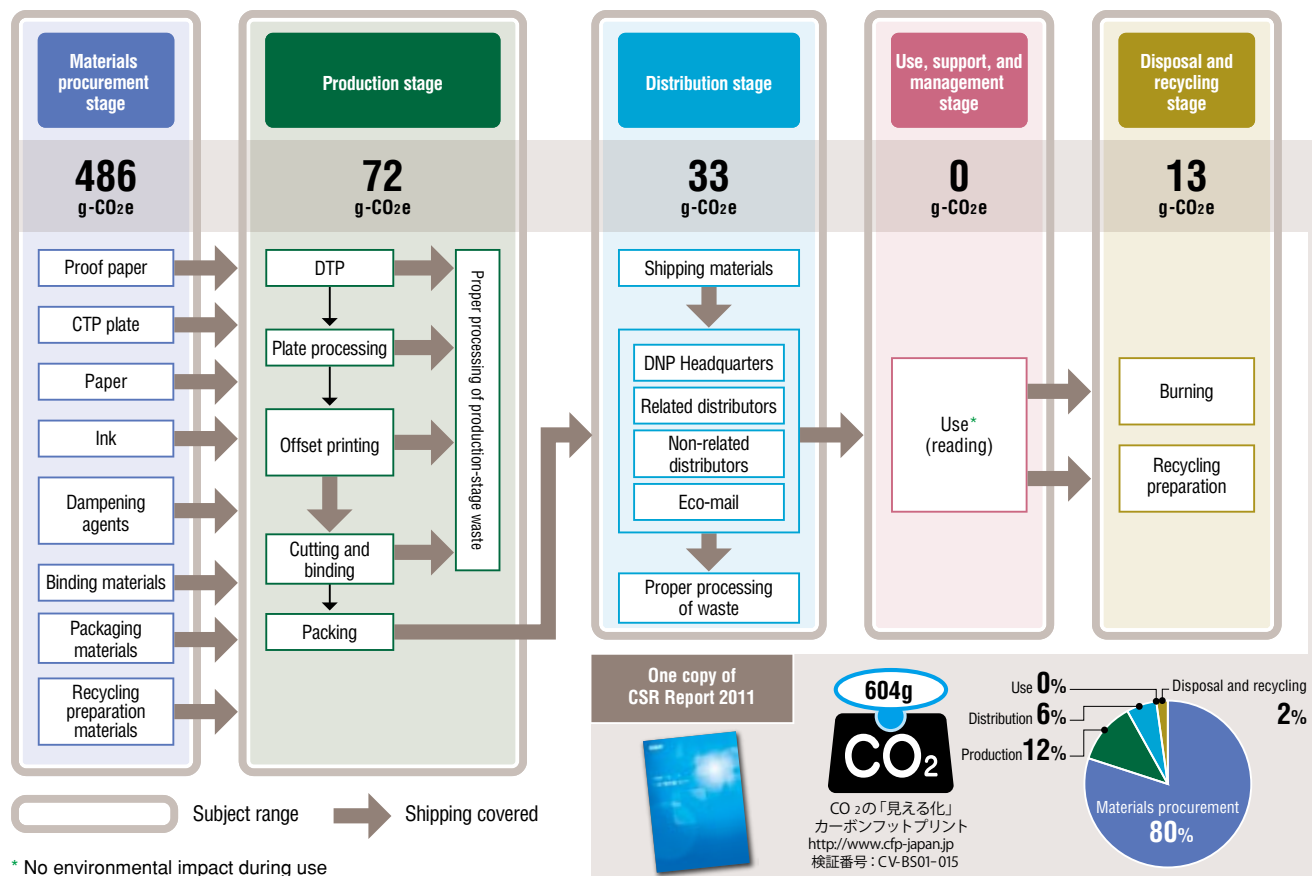
DNP established PCRs (Product Category Rules) for publishing/commercial printing, packaging, etc., in participating in METI's Carbon Footprint System, and are looking into verification schemes. We have also been preparing and gathering production data and conducting training of coordinators in-house, and establishing a system for calculation that matches METI's demands. We calculated the carbon

footprints of our PR and advertising-use printed materials, and after receiving national verification these carbon footprints will be disclosed.

#### Q Carbon Footprint (CFP)

The CFP expresses as CO<sub>2</sub> volume the total emissions of greenhouse gases of a product or service over its entire lifecycle. By labeling the product (visualization), a business can demonstrate its anti-global warming measures to consumers, who can then make product or service choices which take CO<sub>2</sub> emissions volume into consideration. Calculation of the CFP employs the LCA methodology.

### Carbon footprint by lifecycle stage of the DNP Group CSR Report, and the scope of calculation



Stage	Process	Activity amount <b>W</b>			Consumption rate <b>a</b>		CFP	
		Name/Content	Unit	Activity amount <b>W</b>	Name	value <b>a</b> kg-CO2e/Unit	<b>W</b> × <b>a</b> (kg-CO2e)	%
Materials procurement	DTP materials input amount	Proof paper	kg	4.14E+00	(Reference)	—	5.13E+02	80
	Printing plate materials input amount	CTP plates	m²	3.84E+01	(Reference)	—	—	
	Printing materials input amount	Paper (cover, pages)	kg	5.65E+03	(Reference)	—	8.59E+03	
		Paper (survey paper)	kg	1.46E+02	(Reference)	—	—	
		Offset printing ink	kg	6.76E+01	(Common) Regular ink	4.52E+00	3.06E+02	
		Dampening agents	kg	1.91E+01	(Common) Isopropyl alcohol	—	5.03E+01	
	Cutting and binding materials input amount	Hot glue	kg	2.04E+01	(Common) ethylene-vinyl acetate copolymer	2.34E+00	4.77E+01	
	Packing materials input amount	Kraft paper, other	kg	2.74E+01	(Reference)	—	4.57E+01	
		Pallet stretch film	kg	2.39E+00	(Common) Pallet stretch film	—	—	
	Waste processing materials input amount	Annealing wire	kg	4.12E+00	(Common)	4.58E−01	1.89E+00	
Transport of various raw materials	Truck transport	tkm	1.78E+02	(Common) Each truck used for transport	—	5.75E+01		
Production	DTP	Electrical power (including air conditioning and lights)	kWh	2.48E+03	(Common) Public electric	4.79E−01	1.19E+03	12
	Plates							
	Printing							
	Cutting and binding	Gas	Nm³	8.08E+01	(Common) Firing of boilers using city gas 13A	3.01E+00	2.44E+02	
	Packing							
	Waste recycling preparation process							
	Waste transport	Truck transport	tkm	5.93E−01	(Common) Each truck used for transport	—	4.53E−01	
	Proper processing of waste	Burning, recycling preparation processing	kg, kWh	—	(Common) (Reference)	—	8.34E+00	
	Site-to-site transport (Printing plant → Binding plant)	Truck transport	tkm	5.42E+01	(Common) 10-ton truck: Loading ratio 75%	1.28E−01	6.94E+00	
Distribution	Product transport (Binding plant → Related distributors, Related distributors → DNP's nationwide bases, Related distributors → Non-related distributors, Non-related distributors → DNP Catalog Distribution Center, Non-related distributors → Eco-mail shipper, Binding plant → DNP Head office)	Truck transport	tkm	3.05E+03	(Common) Each truck used for transport	—	5.89E+02	6
	Transport materials input volume	Sealing tape	kg	2.84E+00	(Reference)	—	4.61E+00	
	Transport materials transport	Truck transport	tkm	1.42E+00	(Common)	—	—	
	Product shipping (Eco-mail)	Truck transport	tkm	2.10E+02	(Common) 4-ton truck	—	6.83E+01	
	Waste transport	Truck transport	tkm	1.46E+00	(Common) 2-ton truck	—	8.10E−01	
	Proper disposal of waste	Burning, recycling preparation processing	kg, kWh	—	(Common)	—	5.43E+00	
Use and support management	Use of CSR Report (reading)	—	—	—	—	—	0	
Waste and recycling	Waste transport	Truck transport	tkm	2.20E+02	(Common) 2-ton truck	—	1.59E+02	2
	Proper disposal of waste	Burning	kg	2.41E+03	(Common) Burning (general waste)	3.34E−02	1.00E+02	
		Recycling preparation processing	kg]	1.98E+03	(Reference)	—	—	

(Common): Uses data stored in the "Carbon Footprint System Trial CO<sub>2</sub> Conversion Volume Common Unit Database (interim version) ver. 3.0"  
(Reference): Uses "reference data" prepared by the Carbon Footprint Trial Office. Numerical values have not been made public.

We have acquired Environmental Labeling Certification, such as Eco-Mark, CoC certification, EPD, etc., and are working to expand the sale of products with this labeling. This is one method of providing accurate information about our products (goods and services) to consumers through the items we sell, packaging, advertising, etc.

### ● Main Certification Acquisition Results

Eco-Mark (Type 1 environmental label)	
This environmental label is attached to products recognized as having low environmental impact throughout their lifecycle, from "production" through "disposal," and as being useful to environmental conservation.	<b>Acquired for mugs made of recycled plastic</b> <b>Received for "construction-use album" using used paper</b>
CoC Certification	
CoC (chain of custody) This is a certificate of control throughout each stage of processing and distribution, by which wood products and materials (including paper products) taken from FSC-certified forests contain a fixed percentage or greater of certified material, and have no wood products or materials derived from illegally harvested sources mixed in.	<b>Acquired by a total of 21 units</b>
EPD (Type 3 environmental label)	
EPD is an environmental declaration program developed by Sweden's Environmental Management Committee for the disclosure of life cycle assessment data (environmental impact across a product's lifetime) reviewed by a third party	<b>DNP has acquired this for fused thermal transfer materials and dye-sublimation transfer materials.</b>

### CoC and EPD Certification Acquisition Status

Certification Type	Acquired By Acquisition *1	Registration *2	Date Organization
FSC-CoC	DNP Tokai	Oct. 2002	SGS
	DNP Trading	Dec. 2003	SGS
	Packaging Operations	Dec. 2005	SGS
	DNP Tohoku	Mar. 2006	SGS
	Ichigaya Publication Printing Operations	Mar. 2006	SGS
	DNP Multi print	Apr. 2007	SGS
	DNP Hokkaido	Nov. 2007	SGS
	IPS Operations	May. 2008	SGS
	Tien Wah Press (PTE) Ltd	May. 2008	DNV
	Information Communication Operations	Aug. 2008	SGS
	Lifestyle Materials Operations	Aug. 2009	SGS
PEFC-CoC	DNP Nishinippon	Jun. 2010	SGS
	DNP SP Tech	Nov. 2010	JIA
	Packaging Operations	Jan. 2004	JIA
	DNP Tokai	Sep. 2005	SGS
	DNP Hokkaido	Nov. 2007	SGS
	DNP Trading	Jan. 2008	SGS
	IPS Operations	May. 2008	SGS
	DNP Nishinippon	Jun. 2010	SGS
EPD	DNP SP Tech	Oct. 2010	JIA
	Ichigaya Publication Printing Operations	Mar. 2011	SGS
	Dye-sublimation transfer materials (1 type)	Mar. 2003	JIA
	Fused thermal transfer materials (2 types)	Jun. 2005	JIA

#### Certification Type

##### [FSC]

Forest Stewardship Council

##### [PEFC]

Programme for the Endorsement of Forest Certification Schemes

##### [EPD]

Environmental Product Declarations

#### Date Organization

##### [SGS]

SGS Japan

##### [DNV]

Det Norske Veritas (Norway)

##### [JIA]

Japan Gas Appliances Associatio

\*1 Organizations and the names used for them as of March 31, 2010.

\*2 Date of initial registration. However, Information Communication Operations (received in August 2003) received multisite certification at different times.

#### Q Environmental Labeling

Environmental Labeling: This is broadly divided into three types: Type 1, such Eco-Mark (third party certification); Type 2, in which a company itself makes the declaration (self-declaration); and Type 3, in which environmental information is provided on the label, such as the Eco-Leaf (environmental information labeling), with each having specifications under ISO or JIS.

Reference information: "Environmental Database" of the Central Environment Council of the Ministry of the Environment

We understand that our ability to do business is premised upon a bountiful global environment, and therefore we seek to create a sustainable society by fulfilling our biodiversity responsibilities.

We established our Biodiversity Declaration in March 2010, and are conducting business that takes biodiversity into consideration. The main activities in this regard include participation in preservation of Osaka's Yodogawa-Udono Yoshihara (DNP Trading), sponsorship of nature observation classes (DNP IMS Odawara), support for garbage composting for use in growing vegetables for special schools (DNP Tohoku), and provision of used cooking oil for use in making bio-diesel to be used in the Biomass Town concept (DNP Data Techno).

### DNP Group Biodiversity Declaration

**We, the DNP Group, based on our appreciation for nature's bounty and recognition that our business activities impact the environment, will help build a sustainable society by fulfilling our society responsibility to protect biodiversity.**

1. We view protection of biodiversity as an essential issue to be considered in all of our business activities, including business planning, research, project planning, product development, design, production and sales.
2. We will evaluate, understand, and analyze how we affect biodiversity through such actions as using energy and water resources, procuring raw materials, and disposing of chemical substances.
3. In order to broaden our biodiversity protection activities, we will share our understanding of related issues with customers, suppliers, local community members and other stakeholders, and promote cooperative action with them.
4. We will enhance understanding and awareness of biodiversity-related issues among all of our employees, and strive to make them more conscious of the importance of protecting biodiversity.

### Development and use of low-environmental impact materials



PLA cups

DNP developed biomass packaging using polylactate, which is a plant-derived plastic used to make PLA cups, shrink labels for bottles, and smart cards.

We also make an effort to use plant-derived biomass offset printing ink, so as to contribute to the realization of a sustainable society.

We have also developed a biomass plastic composed of 30% ethylene glycol from sugar cane-derived bio-ethanol. Mass production of this BIOMATECH PET began in May 2011.



shrink labels



biomass-based ink



### 1. Use as an environmental management tool for the DNP Group

- (1) Environmental accounting produces a breakdown of environmental conservation costs that can be used as a reference for determining the effectiveness of environmental conservation activities.
- (2) Environmental accounting data is used to determine the cost of individual environmental facilities, the Group's overall budget for environmental conservation, and the amount of investment in environmental activities.
- (3) Environmental accounting is used to monitor and evaluate the effects and achievements of activities performed throughout the year in order to ensure continuous improvement in our environmental performance.

### 2. Use as a tool for communicating with society

- (1) Environmental accounting provides the means for the public release of our environmental conservation efforts and their results.
- (2) We use the reception concerning our environmental accounting reports as received from shareholders, clients, and local communities as a reference for improving our approach to environmental conservation.

#### Environmental Accounting Calculation Bases

- (1) **Period covered:** April 1, 2010 through March 31, 2011 (Environmental conservation facilities are those considered as of March 31, 2011)
- (2) **Scope of coverage:** Within DNP and among the companies subject to our consolidated financial accounting, domestic manufacturers (36 companies), one distribution company, and one in-house food catering company were subjected to environmental accounting.
- (3) **Monetary unit:** All monetary figures are expressed in millions of yen, rounded off to the nearest million.
- (4) **Announcement format:** We used the format designated in the Ministry of the Environment "Environmental Accounting Guideline" 2005 edition.
- (5) **Basis for the environmental conservation cost**
  - 1) The environmental conservation costs include depreciation expenses for investments.
  - 2) Personnel costs for full-time workers were calculated at the average labor cost per person, while personnel costs for workers holding two or more posts were calculated at 1/10 or 1/5 the average personnel cost per person, depending on the worker's assigned duty.
  - 3) R&D costs are the total costs incurred by our 12 R&D centers in the development of environmentally conscious products and manufacturing equipment.
- (6) **Basis for environmental conservation benefits**
  - 1) DNP uses consumption per added-value as an indicator for the volume of resources (energy and water) spent on business activities, as well as for the volume of waste materials and CO<sub>2</sub> emissions.  
Furthermore, the DNP Group uses the added-value total of the company concerned as an indicator of the volume of business activities, given that companies within the Group perform product transactions. The added-value amount is calculated pursuant to the "Management Analysis of Japanese Corporations" issued by the Ministry of the Economy, Trade and Industry.
  - 2) The benefit from atmospheric environmental pollutant emissions volume corresponding to business area costs from this period is in regard to all VOCs, including those covered by the PRTR Act.
  - 3) The benefit related to goods produced by business activities is that corresponding to the reduction of CO<sub>2</sub> emissions when disposing of or recycling containers or packaging products and dye-sublimation transfer materials. However, dye-sublimation transfer materials are calculated as non-export, domestically consumed items.
  - 4) The benefit corresponding to the transportation environmental impact is converted to the energy usage reduction benefit to the shipper at the time the goods, etc. are transported.
- (7) **Bases for the calculation of the economic benefit of environmental conservation activities**
  - 1) The benefit corresponding to resource circulation costs is calculated as the benefit from savings on waste disposal costs.  
The reduction amount is calculated as follows: ((Benchmark period unit consumption - unit consumption for the current period) x business activity amount for the current period).
  - 2) The calculation of business activities was performed using the added-value indicated in Item 6 of the above benefit calculation basis.
  - 3) For unit consumption, we use (waste disposal cost/added-value).
  - 4) The benchmark period unit consumption is the gross average value for the three-year period up to and including the previous term.

**Table (1) Environmental conservation costs  
(Categories corresponding to business activities)**

Category	Investment		Expense		Details of Major Efforts	Page(s) on which data is listed
	2009	2010	2009	2010		
<b>(1) Business area cost</b>						
1) Pollution prevention costs	1,103	1,274	2,655	2,623	VOC collection and disposal equipment, installation of wastewater treatment facilities	17, 22, 23
2) Global environmental conservation costs	296	65	513	410	Insulation installation, inverter conversion, energy use monitoring system	17, 19
3) Resource circulation costs	109	48	2,237	1,892	Furnace improvements, separation recycling, zero emissions (conversion to RPF/cement ingredients), resource recycling	17, 25, 26
(Total business area costs)	1,508	1,387	5,405	4,925		
<b>(2) Up/downstream costs</b>	0	0	157	166	Container and packaging recycling expense burden, recycling system development	28-29
<b>(3) Administration costs</b>	0	0	2,016	1,968	ISO14001 inspection and registration costs, environmental measurement costs, environmental report composition costs	13, 32, 44
<b>(4) R&amp;D costs</b>	0	0	2,908	3,989	Research and development into environmentally conscious products and production methods	19, 25-26, 28-29
<b>(5) Social activities costs</b>	0	0	18	16	Cleanup of areas outside the plant compound, support for activities of environmental conservation groups	33
<b>(6) Environmental remediation</b>	0	0	0	6	Soil improvement	9-12
<b>Total</b>	1,508	1,387	10,504	11,070		

### ● Environmental conservation costs to total costs ratio

Category	Consolidated Total Costs	Costs	Ratio	Details of Major Environmental Conservation Costs	Page(s) on which data is listed
<b>Investment of current period</b>	102,100	1,387	1.36%	VOC collection and disposal equipment, expansion of wastewater treatment facilities, insulation installation, making energy use visible, etc.	18
<b>R&amp;D cost of current period</b>	33,146	3,989	12.03%	Photovoltaic and fuel cell parts, product weight reduction, process loss reduction, energy use monitoring system, etc.	19, 25-26, 28-29

### FY2010 Assessments

- (1) Investment in environmental facilities was roughly the same as the previous year, mostly consisting in the installation of new VOC collection and disposal equipment and refurbishing of water treatment equipment.
- (2) Despite a reduction in depreciation expenses and waste processing costs, business area costs decreased over the previous fiscal year to ¥480 million (8.9%) because of lower wastewater processing costs and depreciation.
- (3) R&D costs increased over the previous year due to increased costs of development of energy conservation-related products and the costs of development of technologies for improved energy conservation.

Table (2) Environmental Conservation Benefits (1)

## (1) Environmental conservation benefit related to resources input into business activities

Category	Indicator showing benefit	2009	2010	Difference	Remarks	Page(s) on which data is listed
<b>1) Benefit arising from supplied resources</b>						
<b>Total energy input volume</b>	Energy consumption (TJ)	20,100	<b>20,800</b>	700	All consumed energy was converted into average value in calories	17, 19-20
	Added-value unit consumption for the above (TJ/100 million yen)	4.86	<b>4.96</b>	0.10	Increased by 0.10TJ per 100 million yen in added value	17, 19-20
<b>Input volume of water</b>	Water usage (1,000 m <sup>3</sup> )	16,100	<b>15,900</b>	-200	Water supply, industrial water, and well water	17, 27
	Added-value unit consumption for the above (1,000 m <sup>3</sup> /100 million yen)	3.89	<b>3.79</b>	-0.10	Water decreased by 100m <sup>3</sup> per 100 million yen	17, 27
<b>Input volume of main raw materials</b>	Supplied amount (1,000 tons)	2,283	<b>2,245</b>	-38	Total weight of paper, plastic, ink and metals	17, 26
	Amount of undesired materials generated/supplied (%)	13.7	<b>13.2</b>	-0.5	Ratio of unwanted materials that are main raw materials	17, 26
<b>2) Environmental conservation benefit related to waste or environmental impact originating from business activities</b>						
<b>Emissions to the air</b>	SOx emissions (tons)	12	<b>11</b>	-1	Calculated based on emissions volume per unit time and time of operation	17, 22
	NOx emissions (tons)	673	<b>697</b>	24	Calculated from supplied energy	17, 22
	Environmental pollutant emissions volume (tons)	9,011	<b>6,837</b>	-2,174	VOC emissions volume	17, 24
<b>Water quality</b>	COD discharge (tons)	51.4	<b>48.9</b>	-2.5	Calculated from the amount of discharged water and average concentration	17, 23
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	0.1	<b>0.0</b>	-0.1	There were no emissions into public waterways in FY2010.	24
<b>Water emission volume</b>	Generated undesired materials (1,000 tons)	376	<b>355</b>	-21	Including undesired materials other than main raw materials	17, 25-26
	Discharged waste (1,000 tons)	62.7	<b>57.5</b>	-5.2	Total waste subcontracted to waste disposal companies	17, 25-26
	Added-value unit consumption for the above (ton/1 million yen)	0.151	<b>0.137</b>	-0.014	Reduction of 14kg per JPY1 million of added value	17, 25-26
	Recycle rate (%)	99.2	<b>99.3</b>	0.1	Not achieved for waste plastics (97.2%) and glass (60.6%)	17, 25-26
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	2,030	<b>1,430</b>	-600	Total for 36 substances reported	24
<b>Volume of green house gas emission</b>	Emissions of greenhouse gasses (1,000 t-CO <sub>2</sub> )	896	<b>903</b>	7	Total GHG including emissions by incinerators and drying furnaces	17, 19-20
	Added-value unit consumption for the above (ton/100 million yen)	216	<b>215</b>	-1	Decrease of 1 ton of emissions per 100 million yen added-value	17, 19-20

# Table (2) Environmental Conservation Benefits (2) (3)

## (2) Environmental conservation benefit related goods and services produced from business activities

Category	Indicator showing benefit	2009	2010	Difference	Remarks	Page(s) on which data is listed
<b>1) Benefit related to goods produced by business activities</b>						
CO <sub>2</sub> emissions after product shipment	CO <sub>2</sub> emissions (1,000 t-CO <sub>2</sub> )	285	246	-39	Volume produced during incineration and recycling of used containers/ packaging and dye-sublimation transfer materials.	30-31
	CO <sub>2</sub> emissions/volume of products	1.05	1.03	-0.02	Decrease of CO <sub>2</sub> emissions of 0.02t per 1t of product	30-31

## (3) Other environmental conservation benefit

Category	Indicator showing benefit	2009	2010	Difference	Remarks	Page(s) on which data is listed
<b>1) Benefit related to the environmental impact of transportation</b>						
	Energy usage amount during shipment of goods (kl)	26,200	25,700	-500	Energy usage (converted to fuel oil) during transport as freight	21
	Energy usage amount during transport/gross sales (kl/100 million yen)	1.65	1.61	-0.04	0.04 kl reduction per JPY100 million of sales	21

## FY2010 Assessments

- (1) Energy consumption increased due to the inclusion of DNP Color Techno Sakai in the total, in addition to which order costs deteriorated, worsening the unit price. In contrast, water use decreased because of reduced domestic demand for photomasks.
- (2) A ¥1.12 billion investment in VOC collection and disposal equipment (¥3.32 billion over the past five years) resulted in broadly reduced atmospheric emissions. Waste per unit of production improved over the previous year as a result of reducing waste emissions by eliminating waste from all production processes and converting undesired materials to valuable resources through "Manufacturing 21" activities, resulting in improved performance year-on-year.
- (3) In the area of distribution, as a result of continued measures such as the optimization of vehicle assignments and transport routes, better efficiency through the installation of digital tachometers, the "idling stop" campaign, the "modal shift" to rail transport, and the introduction of hybrids into our fleet, the amount of energy used during transport has been reduced, broadly improving per unit consumption for the fourth year in a row.

## Table (3) Economic Benefits of Environmental Conservation Activities

Category	2009	2010	Difference	Remarks	Page(s) on which data is listed
<b>(1) Increased sales    1) Economic benefit of R&amp;D costs</b>					
Sales of environmentally conscious products	312,100	<b>318,000</b>	5,900	Sales increased 1.9% over FY2009	28-29
<b>(2) Increased income    2) Benefit of resource recycling costs income from recycling undesired materials</b>					
Income from recycling undesired materials	2,474	<b>2,763</b>	289	Increased ¥290 million through valuable material conversion	26
<b>(3) Cost saving    3) Benefit corresponding to resource circulation costs</b>					
Saving disposal costs by resource conservation	301	<b>303</b>	2	Improved unit price do to waste reduction	26

### FY2010 Assessments

- (1) Sales of environmentally conscious products increased over the previous year due to increased sales of optical film for displays, flooring, and packaging. We have exceeded our target for four years in a row.
- (2) Income from the recycling of undesired materials broadly increased year-on-year, through the conversion of waste to valuable material.
- (3) The economic benefit calculated according to item (7) on page 34 of the "Environmental Accounting Calculation Bases" showed broad improvement over the previous year, due to waste emissions reduction through "Manufacturing 21" activities, progress in the conversion of undesired materials to valuable resources due to thorough separation and collection, and reduction of waste volume. This represents two consecutive years of improvement.

### Issues Henceforth

- (1) Make further improvements in eco-efficiency through activities such as "Manufacturing 21."
- (2) Continue to newly install more VOC collection and disposal equipment so as to reduce emissions of VOCs into the atmosphere.
- (3) In addition to improving energy use efficiency, proceed with energy use monitoring and planned upgrading of the latest energy conservation equipment.

## Revisions of the DNP Group's Environmental Targets

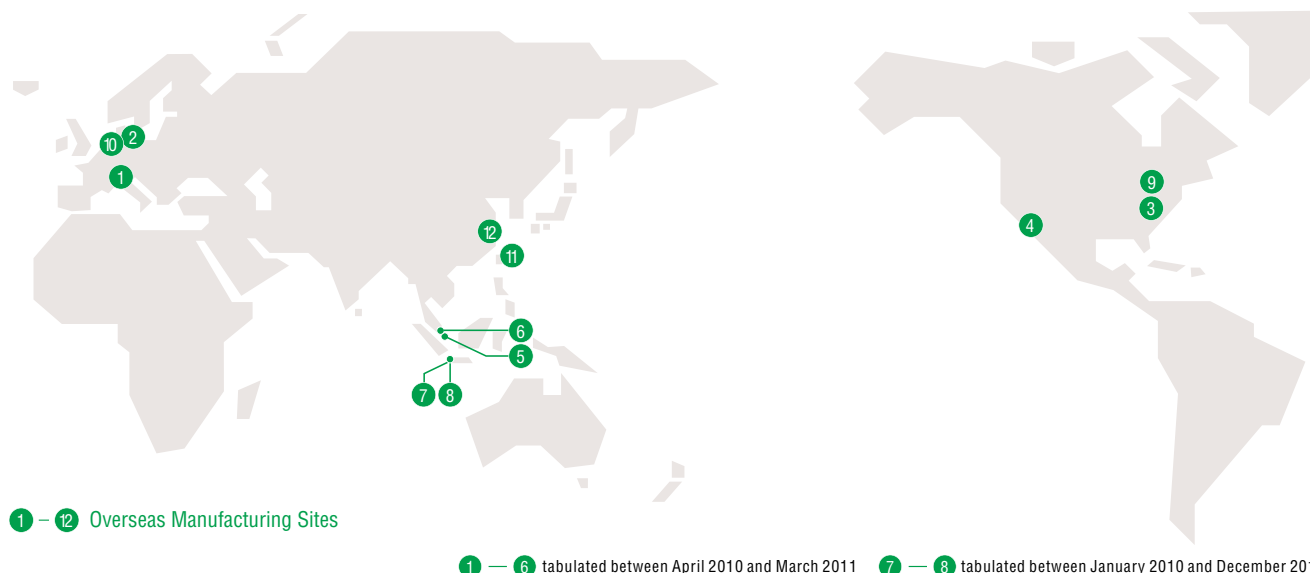
Revisions were proposed at the DNP Group Environmental Committee meeting held in March, and the following target revisions were enacted.

Theme	Target from FY2011 on	Main points of revision
Global warming prevention	To reduce GHG emissions 10% from the 2005 levels by fiscal 2020.	Per unit targets were exchanged for a single comprehensive target, so as to better contribute to global warming.
Reduction of environmental impact incurred during transport	To reduce per unit fuel use for transport (amount of fuel used/sales) at 1% per annum, and 10% by fiscal 2020 compared to fiscal 2010.	Reduced by 25% in comparison with FY2006 by FY2010. Extend this target to 2020, making further reductions with FY2010 as the benchmark year.
VOC	To reduce emissions of VOCs (except for methane) by 20% compared to 2010 by fiscal 2015.	Reduced by 68% in comparison with FY2002 by FY2010. Make further reductions with FY2010 as the benchmark year.
Reduction of industrial waste	To reduce per unit waste emissions (waste emissions/production) by 15% from the 2010 level by fiscal 2015.	Refine the indicators to make it easier to judge the results of efforts such as conversion to valuable material and waste volume reduction at the site. Make progress in waste reduction and toward zero emissions.
	To achieve zero emissions for the entire DNP Group by fiscal 2015.	
Development and sales of environmentally conscious products	To increase sales of environmentally-conscious products and services to ¥400 billion by fiscal 2015.	Achieved the goal of "¥300 billion in FY2010." Increase the target amount, press on with development and sales.
Green purchasing	To increase the rate of the materials purchased according to the DNP green purchasing standards to 50% by fiscal 2015.	Achieved targets both for raw materials and general supplies. Raise the targets, expand green purchasing.
	To increase the purchase rate of environmentally certified products, such as those labeled with the Eco-Mark, of the total supplies (office supplies and equipment) to 85% by fiscal 2015.	
Environmental conservation	To keep the maximum concentration of atmospheric emissions, water quality, odor, noise, and vibration at 70% of the required standard or less.	Convert noise and vibration to audio pressure and vibration speed for evaluation, and maintain the same "95% of the required standard or less" level.
Office environment	To increase the rate of the fractional recovery of waste paper to 70% of that for general waste.	Maintain at same level as prior to revision, but expand the scope.
Environmental management system	To perform Eco-Audits at all sites.	Maintain this target.

# Environmental Impact Status at Overseas Sites

We implemented the Eco-Report System (P9) at our overseas sites as well beginning in 2005.

We promote compliance with all local laws and regulations at our overseas manufacturing sites, as well as environmental conservation measures such as setting targets for energy conservation, waste reduction, and recycling. We also promote the setting and achievement of targets for items such as energy conservation, reduced use of copier paper, and recycling at our overseas offices.



Site	Work content	CO <sub>2</sub> emissions (Unit: CO <sub>2</sub> tons)	Final amount of waste disposals (Unit: tons)	VOC emissions (Unit: tons)
1 DNP Photomask Europe S.p.A. (Agrate)	Manufacturing photomasks	5,620	28	less than 1 ton
2 DNP Denmark A/S (Carlslund)	Manufacturing projection television screens	750	0	less than 1 ton
3 DNP IMS America Corporation (Concorde)	Manufacturing information media supplies	2,270	256	less than 1 ton
4 DNP Electronics America, LLC (Chula Vista)	Manufacturing projection television screens	660	2	less than 1 ton
5 Tien Wah Press (Pte.) Ltd. (Singapore)	Offset printing and binding	9,130	294	85
6 Tien Wah Press (Pte.) Ltd. (Johor Bahru)	Offset printing and binding	5,780	0	33
7 DNP Indonesia (Progadon)	Gravure printing and offset printing	18,460	808	2,686
8 DNP Indonesia (Karawang)	Gravure printing and offset printing	23,530	457	4,494

\* CO<sub>2</sub> emissions volume is calculated using coefficients from the GHG Protocol and the US Department of Energy.

Data are not compiled for 9 DNP IMS America Corporation (Pittsburgh), 10 DNP IMS Netherlands B.V. (Amsterdam), 11 DNP Photomask Technology Taiwan Co., Ltd. (Hsinchu), and 12 DNP Plastic Molding (Shanghai) Co., Ltd. (Shanghai) because they are new sites.

# Results of Efforts

FY1972	Establishes the Environment Department within the head office to promote pollution prevention measures and communication with local residents
FY1990	Makes new efforts to deal with global environmental issues by establishing the Eco-Plan Promotion Office within the Environment Department
FY1992	Establishes the DNP Group Corporate Pledge and Code of Conduct for DNP Group Employees Establishes the Eco-Plan Promotion Targets, the fundamental voluntary plan based on the Environmental Declaration of the Codes of Conduct, and starts activities by 4 sub-committees
FY1993	Starts the Eco-Report System, which is part of the DNP Group environmental management system
FY1994	Remodels and expands the Environment Department into the Environment & Product Liability Department to strengthen our efforts towards environmental issues, including taking responsibility for the disposal of products we produce
FY1995	DNP wins the International Trade and Industry Minister's Prize in the "Fourth Global Environmental Awards", which commend companies and groups that contribute to the conservation of the global environment. (The Awards were established in 1991 by the Japan Industrial Journal and the Fuji Sankei Communications Group, with special support by WWF Japan and sponsorship by the Ministry of the Environment, the Ministry of the Economy, Trade and Industry, and the Japan Federation of Economic Organizations.)
FY1996	Begins performing the Eco-Audit, the internal environmental audit performed by the Eco-Plan Promotion Office to upgrade the Eco-Report System
FY1997	Okayama Plant, Information Media Supplies Operations becomes the first in the printing industry to acquire ISO14001 certification
FY1998	Mihara Plant, Display Components Operations acquires ISO14001 certification Publish the DNP Group Environmental Activity Report
FY2000	The Eco-Plan Promotion Office is dismantled and replaced with DNP Environmental Committee to strengthen the system for promoting environmental activities The affiliate DNP Facility Services becomes the first in the world to be certified as a comprehensive system with quality, environment, office safety and HACCP Okayama Plant, Decorative Interiors Operations acquires ISO14001 certification
FY2001	DNP Tokai, and Sayama Plant, DNP Technopack acquires ISO14001 certification
FY2002	DNP Tokai acquires FSC-CoC certification Acquisition of ISO14001 certification by: Kobe Plant, Decorative Interiors Operations, The Inctec (Tokyo, Kansai, and Utsunomiya Plants), Ushiku Plant, BF Operations, DNP Technopack Tokai, Tien Wah Press, Chikugo Plant, DNP Nishinippon, Kyoto Plant, Electronics Devices Operations, Sayama Plant, Information Media Supplies Operations, Ono Plant, DNP Media Create Kansa
FY2003	Environmental Report Division receives the "6th Environmental Report Grand Prize" for superior reporting Acquisition of ISO14001 certification by: Advanced Colortech, Tokyo Plant, Decorative Interiors Operations, Kamifukuoka Plant, Electronics Devices Operations Commercial Printing Operations, DNP Media Create Kansai, DNP Trading acquire FSC-CoC certification, while Packaging Operations acquires PEFC-CoC certification. Two types of fused thermal transfer materials of the Information Media Supplies Operations receive EPD "Type III" environmental labeling certification and registration.

FY2004	The "14th Global Environment Grand Prize" awarded by the Minister for the Environment The "7th Environmental Report Prize" awarded for Excellence Fukuoka Plant, DNP Nishinippon, DNP Logistics, DNP Ellio (Tokyo and Osaka Plants), Warabi Plant, BF Operations acquire ISO14001. Eco-Report System implemented at overseas sites.
FY2005	"8th Environmental Report Prize / Sustainability Report Prize" awarded for excellence DNP Data Techno Kansai, Johore Bahru Plants, Tien Wah Press, Otone Plants, Display Products Operations, DNP Techno Polymer (Kashiwa and Kansai Plants) acquire ISO14001. Ichigaya Publication Printing Operations, DNP Tohoku, Yokohama Plant, Packaging Operations acquire FSC-CoC certification, and DNP Tokai acquires PEFC-CoC certification.
FY2006	DNP Photomask Europe, Akabane Area, DNP Logistics, DNP Techno Film (Kashiwa Plant and Izumizaki Plant), DNP IMS Odawara acquire the certification of ISO14001.
FY2007	"PRTR 2007 Awards" PRTR Honorable Mention (Tsuruse Plant) DNP Gotanda Building wins the "Green Grand Prize" in the Shinagawa-ku "Green Award System." DNP Technopack Yokohama (Yokohama Plant) and DNP Fine Chemicals acquire ISO14001 certification. DNP Hokkaido and DNP Data Techno Kansai acquire FSC-CoC certification; also, DNP Hokkaido and DNP Trading also acquire PEFC-CoC certification.
FY2008	ISO14001 certification acquired by Izumizaki Plant, DNP Technopack, Kasaoka Plant, DNP Fine Chemicals, Okayama Plant, Opto-Materials Operations. IPS Operations and DNP Media Create Kansai acquire PEFC-CoC certification
FY2009	Mihara Plant, Opto Materials Operations, DNP Indonesia (Pulogadung / Karawang), Kyoto Plant, Electronic Devices Operations, and Shiga Plant, Information Media Supplies Operations acquire ISO14001 certification. Kanto Bureau of Economy, Trade and Industry "Energy Management In Business Superiority Award" (received by Akabane Plant, Commercial Printing Operations) Lifestyle Materials Operations acquires FSC-CoC certification.
FY2010	DNP IMS Odawara receives the Kanagawa Prefecture Environmental Conservation (Air, Water, Soil) Award DNP Color Techno Sakai acquires ISO 14001 certification Revision of DNP Group Environmental Targets The DNP Emergent Evolution Forest Hakone Training Center 2 acquires Green Key certification

\* Organizations and the names used for them as of that time.

## Domestic site for disclosure of performance data (1)

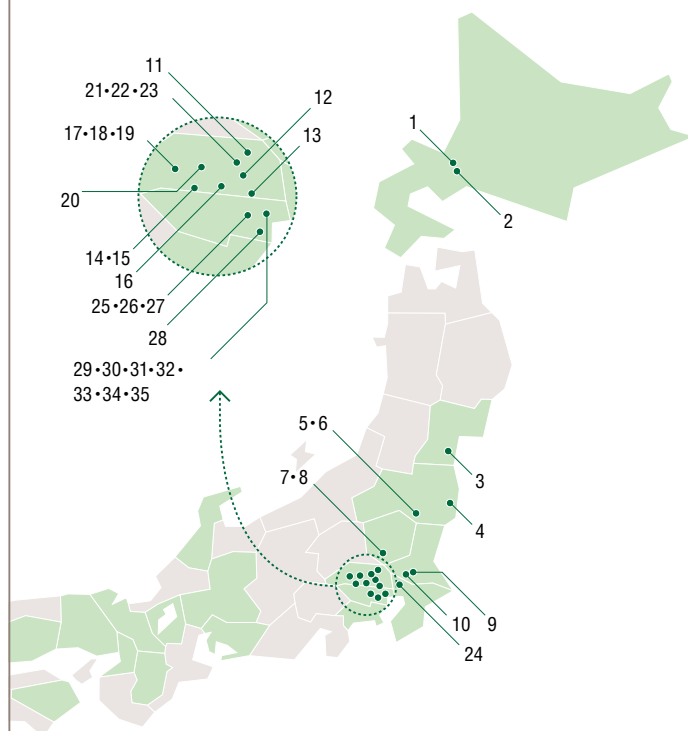
Organizations and the names used for them as of March 31, 2011.

### Types of business unit

- Information Communication
- ▲ Lifestyle and Industrial Supplies
- Electronics
- Other

“Other” Operations unit categories refers to Group companies manufacturing products not associated with Information Communications, Lifestyle and Industrial Supplies, and Electronics divisions or a those made by multiple units.

\* In October 2010, DNP Offset Co., Ltd. merged with DNP Seihon Co., Ltd. to form DNP Book Factory Co., Ltd.



	Location	Operation	No	Site	Work content
Hokkaido	Higashi-ku, Sapporo	□	1	DNP Hokkaido	Plate-making/printing/bookbinding/manufacturing of packaging
	Kiyota-ku, Sapporo	□	2	Sapporo Plant, Hokkaido Coca-Cola Products	Beverage manufacturing
Miyagi	Miyagino-ku, Sendai	□	3	DNP Tohoku	Plate-making/printing/bookbinding/manufacturing of packaging
Fukushima	Minami Souma	▲	4	DNP Fine Chemical Fukushima	Photographic materials and medical supplies manufacturing
	Izumizaki, Nishi Shirakawa	▲	5	Izumizaki Plant, DNP Technopack	Plate-making/printing plate/printing
		▲	6	Izumizaki Plant, DNP Energy System	Processing of synthetic resin films
Tochigi	Nishikatacho, Kamitsuga	●	7	DNP Graphica	Printing/bookbinding
		▲	8	Utsunomiya Plant, DNP Techno Polymer	Plastic container molding
Ibaraki	Ushiku	●	9	DNP Data Techno	The manufacturing of various types of Smart cards
	Tsukuba	□	10	Tsukuba Techno Center, D.N.K.	Printing and manufacturing machine tools
Saitama	Kazo	■	11	Otone Plant, DNP Precision Devices	The manufacturing of electronic parts for displays
	Shiraoka, Minami Saitama	●	12	Shiraoka Plant, DNP Book Factory *	Printing/bookbinding
	Kawaguchi	●	13	Kawaguchi Plant, DNP Book Factory *	Printing
	Miyoshi, Iruma	●	14	Tsuruse Plant, Ichigaya Publication Printing Operations	Plate-making/printing plate/printing/bookbinding
		▲	15	Tokyo Plant, DNP Lifestyle Materials	Plate-making/printing plate/printing/processing
	Warabi	●	16	Warabi Plant, IPS Operations	Plate-making/printing/processing
	Sayama	▲	17	Sayama Plant, DNP Technopack	Plate-making/printing plate/printing
		▲	18	Sayama Plant, DNP Technopack Yokohama	Molding and processing various types of paper containers
		▲	19	Sayama Plant, DNP IMS	Manufacturing thermal transfer carbon ribbons and dye-sublimation transfer materials
	Fujimino	■	20	Kamifukuoka Plant, DNP Fine Electronics/DNP Precision Devices	Manufacturing electronic precision parts
	Kuki	●	21	Kuki Plant, Ichigaya Publication Printing Operations	printing plate/printing/bookbinding
		■	22	Kuki Plant, DNP Fine Electronics	Manufacturing electronic precision parts
		▲	23	Saitama Plant, DNP Opto-Materials	Manufacturing electronic parts
Chiba	Kashiwa	▲	24	Kashiwa Plant, DNP Techno Polymer	Molding, processing and printing plastic containers
Tokyo	Shinjuku	●	25	Ichigaya Plant, Ichigaya Publication Printing Operations	Plate-making/printing plate/printing/bookbinding
		□	26	DNP Facility Services	Meal services, etc
		●	27	Enokicho Plant, Commercial Printing Operations	Plate-making/printing/bookbinding
	Shinagawa	□	28	Honmachi Plant, DNP SP Tech	Manufacture of all types of advertising items
	Kita	●	29	Akabane Plant, DNP Book Factory *	Printing
		●	30	Akabane Plant, Commercial Printing Operations	Plate-making/printing/bookbinding
		●	31	Kamiya Plant, DNP Book Factory *	Bookbinding
		□	32	DNP Logistics	Packaging/shipping
		□	33	DNP Hosono	Processing filling and packaging
		□	34	D.N.K.	Printing and manufacturing machine tools
		●	35	Kamiya Plant, IPS Operations	Printing/bookbinding /processing

## Domestic site for disclosure of performance data (2)

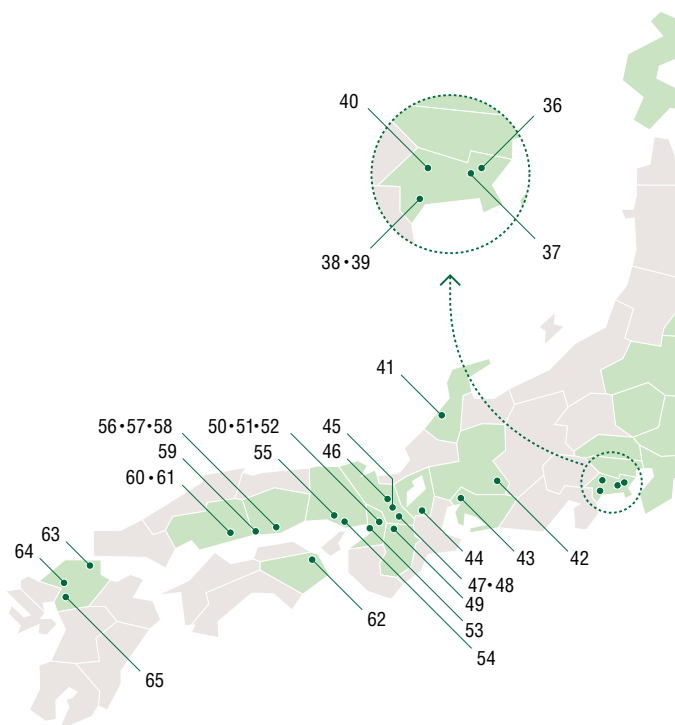
Organizations and the names used for them as of March 31, 2011.

### Types of business unit

- Information Communication
- ▲ Lifestyle and Industrial Supplies
- Electronics
- Other

“Other” Operations unit categories refers to Group companies manufacturing products not associated with Information Communications, Lifestyle and Industrial Supplies, and Electronics divisions or a those made by multiple units.

\* In April 2010, changed name from DNP Media Create Kansai.



	Location	Operation	No	Site	Work content
Kanagawa	Tsuzuki-ku, Yokohama	▲	36	Yokohama Plant, DNP Technopack Yokohama	Plate-making/printing plate/printing
	Midori-ku, Yokohama	□	37	Tokyo Plant, DNP Fine Chemicals	Manufacturing ink, varnish, pigments and dyes
	Odawara	▲	38	Sagami Yoki	Manufacturing laminated tubes
		▲	39	DNP IMS Odawara	Photographic materials manufacturing
	Aikawa, Aiko	▲	40	Tokyo Plant, DNP Ellio	Printing and processing metal sheets
Ishikawa	Hakusan	□	41	Hokuriku Techno Center, D.N.K	Printing and manufacturing machine tools
Gifu	Nakatsugawa	▲	42	DNP Technopack Tokai	Manufacturing/printing/processing packaging
Aichi	Moriyama-ku, Nagoya	□	43	DNP Tokai	Plate-making/printing/bookbinding/manufacturing of packaging
Shiga	Koka	▲	44	Shiga Plant, DNP IMS	Thermal transfer recording materials productions
Kyoto	Minami-ku, Kyoto	■	45	Kyoto Plant, DNP Fine Electronics	Manufacturing electronic precision parts
	Ukyo-ku, Kyoto	▲	46	Kyoto Plant, DNP Technopack Kansai	Plate-making/printing plate/printing
	Kyotanabe	▲	47	Tanabe Plant, DNP Technopack Kansai	Printing plate/printing
		▲	48	Tanabe Plant, DNP Techno Polymer	Molding, processing plastic containers
Nara	Kawanishi, Shiki	●	49	DNP Data Techno Kansai	The manufacturing of various types of Smart cards
Osaka	Neyagawa	▲	50	Kansai Plant, DNP Techno Polymer	Molding, processing and printing plastic container
		▲	51	Osaka Plant, DNP Ellio	Printing and processing metal sheets
		□	52	Neyagawa Plant, DNP SP Tech	Manufacture of all types of advertising items
	Sakai	■	53	DNP Color Techno Sakai	Manufacturing electronic precision parts
Hyogo	Kita-ku, Kobe	▲	54	Kobe Plant, DNP Lifestyle Materials	Printing/processing
	Ono	●	55	Ono Plant, DNP Media Techno Kansai *	Printing plate/printing/bookbinding
Okayama	Okayama	▲	56	Okayama Plant, DNP IMS	Manufacturing dye-sublimation transfer materials
		▲	57	Okayama Plant, DNP Lifestyle Materials	Plate-making/printing plate/printing/processing
		▲	58	Okayama Plant, DNP Opto-Materials	Manufacture electronic parts
	Kasaoka	□	59	Kasaoka Plant, DNP Fine Chemicals	Manufacturing ink, varnish, pigments and dyes
Hiroshima	Mihara	■	60	Mihara Plant, DNP Precision Devices	Manufacturing electronic precision parts
		▲	61	Mihara Plant, DNP Opto-Materials	Manufacturing electronic parts
Tokushima	Tokushima	□	62	DNP Shikoku	Plate-making/printing/manufacturing of packaging
Fukuoka	Yahatanishi-ku, Kitakyushu	■	63	Kurosaki Plant No.1 and Plant No.2, DNP Precision Devices	Manufacturing electronic precision parts
	Minami-ku, Fukuoka	□	64	Fukuoka Plant, DNP Nishinippon	Plate-making/printing/bookbinding
	Chikugo	□	65	Chikugo Plant, DNP Nishinippon	Plate-making/printing/ manufacturing of packaging

- DNP Media Art and DNP Uniprocess are covered as part of the Ichigaya Plant, Ichigaya Publication Printing Operations.
- DNP Media Create and DNP Butsuryu Systems Shouin are covered as part of the Enokicho Plant, Commercial Printing Operations.
- DNP Total Process Warabi is covered as part of the Warabi Plant, IPS Operations.
- DNP Micro Technica is covered as part of the Kamifukuoka Plant, DNP Fine Electronics.

# Independent Review Report Comments by an Independent Institution

## Onsite audit



Ichigaya Plant, Ichigaya Publication Printing Operations



DNP Technopack Yokohama



Okayama Plant, DNP IMS



Kurosaki Plant No.2, DNP Precision Devices



Chikugo Plant, DNP Nishinippon

## Translation

The following is an English translation of an independent assurance report prepared in Japanese and is for information and reference purposes only. In the event of a discrepancy between the Japanese and English versions, the Japanese version will prevail.

## Independent assurance report

3 August 2011

Mr. Yoshitoshi Kitajima

President and Director  
Dai Nippon Printing Co., Ltd.

### 1. Purpose and scope of our assurance engagement

We have performed certain assurance procedures, based on the engagement with Dai Nippon Printing Co., Ltd (the "Company"), on the Company's key environmental performance indicators. These comprise the environmental accounting data and the material environmental information<sup>1</sup> of the Company and its major subsidiaries for the year ended 31 March 2011, that were reported in the DNP Group Environmental Report 2011 (the "Report"). The assurance procedures are with respect to whether the key environmental performance indicators have been measured and calculated accurately and whether material information has been fully disclosed in accordance with the reporting standards for sustainability reports<sup>2</sup>.

The preparation of the Report is the responsibility of the Company's management. Our responsibility is to express an independent opinion on the Key Environmental Performance Indicators.

### 2. Outline of the assurance procedures performed

We have performed limited assurance procedures<sup>3</sup> in accordance with the 2003 International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information of the International Federation of Accountants (IFAC) and the 2009 Practical Guidelines for the Assurance of Sustainability Information of the J-SUS. Therefore, our assurance engagement provides relatively limited assurance compared to a reasonable assurance engagement.

### 3. Conclusion

Based on the assurance procedures performed, nothing has come to our attention that causes us to believe that the Key Environmental Performance Indicators have not been measured and calculated accurately in accordance with the reporting standards of sustainability reports, or material information has not been disclosed in accordance with the 2011 Environmental Reporting Assurance and Registration Criteria, in all material respects.

### 4. Independence

Our assurance is compliant with the Ethics Regulations of J-SUS and there is no financial interest between the Company and us.

Akihiro Nakagome  
Representative Director  
Ernst & Young ShinNihon Sustainability Institute Co., Ltd.

<sup>1</sup> The scope of material environmental information is stipulated in the 2011 Environmental Reporting Assurance and Registration Criteria of the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS).

<sup>2</sup> The reporting standards refer to the 2007 Environmental Reporting Guidelines of Japan's Ministry of the Environment and the 2011 Environmental Reporting Assurance and Registration Criteria of J-SUS in the context of specifying the material subject to disclosure.

<sup>3</sup> We have mainly reviewed and assessed the Company's procedures for the collection and aggregation of data, performed analytical procedures, as well as recalculated and reconciled them with the corroborating evidence on the quantitative sustainability information on a test basis. In addition, we have mainly made inquiries and reviewed related records to verify the qualitative information.

## **Dai Nippon Printing Co., Ltd.**

Environment & Product Liability Department

1-1, Ichigaya Kagacho 1-chome, Shinjuku-ku, Tokyo 162-8001, Japan

Tel: +81-3-3266-2111

Fax: +81-3-5225-8083

<http://www.dnp.co.jp/>

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