

DNP

**DNP Group Environmental Report
2013**

DNP Group Environmental Report 2013



Editorial Policy

- The DNP Group Environmental Report 2013 was created to announce all of the environmental activities of the DNP Group, and is based on the Environmental Reporting Guidelines (2012 edition) issued by Japan's Ministry of the Environment.
- The DNP Group Environmental Report 2013 is published in a page format designed to be easy to read on the Web.
- We have interspersed columns throughout, covering specific topics.
- The information in this report was subjected to a third-party review conducted by the Ernst & Young Sustainability Co., Ltd. and received the Environmental Report Assurance and Registration Mark from the Japanese Association of Assurance Organizations for Sustainability Information for compliance with its standards.

Period covered by this report

This report focuses on activities carried out in the period of April 1, 2012 to March 31, 2013. It may also include reporting on important items not occurring within this period.

Scope of environmental data

Environmental accounting was applied to DNP and to all domestic companies in the Group that are subject to consolidated financial accounting. Thirty-two domestic manufacturing companies plus one distribution company (see pp. 45, 46) were included in the scope, expanded to include non-manufacturing sites (two development centers, office buildings, sales offices, etc.) of all domestic Group companies. A report on our overseas manufacturing firms is presented separately on p. 43.

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**Message from the Director
in Charge of the Environment**

Going Beyond Society's Expectations

Chairman of the DNP Group
Environmental Committee

Satoru Inoue



The DNP Group has been working to reduce environmental impact in all processes from the procurement and use of raw materials to their disposal, promoting sustainable business practices to protect and support the global environment.

We place priority on taking action to go beyond society's expectations, and we have been producing a report since 1998 specific to our environmental action.

This report outlines our activities and their results so that stakeholders can get a clear picture. The report is edited according to the Environmental Reporting Guidelines (2012 edition) issued by Japan's Ministry of the Environment and aims to be exhaustive and provide continuity. The information in this report was subjected to a third-party review conducted by the Ernst & Young Sustainability Co., Ltd., assuring that important environmental data was accurately measured and calculated, and fully disclosed.

Efforts in Fiscal 2012

Environmental targets for fiscal 2012 and a record of actions taken are presented in this report.

The DNP Group has targets for reducing the total amount of greenhouse gas emissions, and this year we also implemented energy conservation sub-committees to promote energy-saving measures throughout the group. Starting in fiscal 2013, we will expand such targets for reduction to our overseas operations. We also began applying the "Scope 3" standards to calculate greenhouse gas emissions across our entire supply chain. Figures have been calculated for fiscal years 2010 to 2012. By so doing, we discovered areas in which there were excellent opportunities to reduce emissions, and we then implemented effective reduction measures.

Steady progress is being made toward achieving our target values in reducing atmospheric emissions

of volatile organic compounds (VOCs), lowering industrial waste output per unit, and achieving zero emissions, as we aim for less than 0.5% landfill.

Two key themes upon which we have taken action in protecting biodiversity that are closely tied to our business activities are: examining the procurement of raw materials, and creating green areas on the premises of our business sites. Paper is one of the raw materials that is essential to the business continuity of the DNP Group. We have set guidelines on the procurement of printing paper and converting paper aimed at effective utilization of sustainable forest resources. Furthermore, we have conducted seminars to explain these guidelines to companies from whom we procure paper. Another initiative has been the creation of green areas as natural habitats, and we have been promoting employee participation in the Ichigaya district (Tokyo), at our Okayama Plant, at DNP Chubu (Nagoya), and at other locations.

In December we revised our development guidelines with regard to environmentally conscious products and services to speed up their development.

Future efforts

The DNP Group will continue to implement sustainable business practices to steadily expand our measures to reduce environmental impact worldwide. It is also critical that our entire supply chain has the same level of awareness in their activities as we do in ours. Specifically, in our Scope 3 estimates, we have looked closely at emissions related to purchased goods and services, which account for over 60% of our overall business, and will be pursuing reductions in cooperation with our suppliers. For the future we plan to deepen communication with our diverse stakeholders and take action as we build deeper trust. Through these activities we aim to be consistently worthy of a high degree of trust from society.

Outline of the DNP Group

DNP Corporate Profile (as of March 31, 2013)

Company Name Dai Nippon Printing Co., Ltd.

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/>

Established October 1876

Incorporated January 1894

Paid in Capital ¥114.464 billion

Number of Employees 10,724 (Non-consolidated)
39,445 (Consolidated)

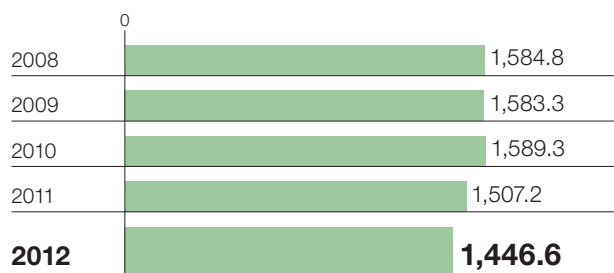
Sales Offices 47 locations in Japan
24 locations overseas
(including local affiliates)

Main Plants 69 domestic plants
11 overseas plants (including affiliates)

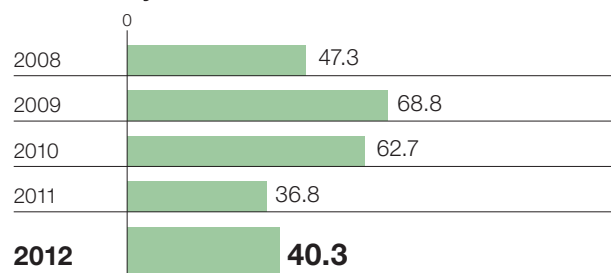
R&D Facilities 11 locations in Japan

FY2012 Financial Data (FY ending March 2013)

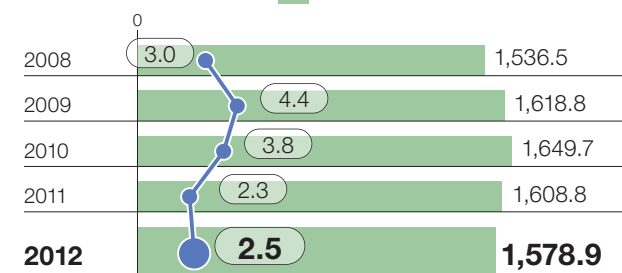
Net sales (Yen billions)



Net ordinary income (Yen billions)

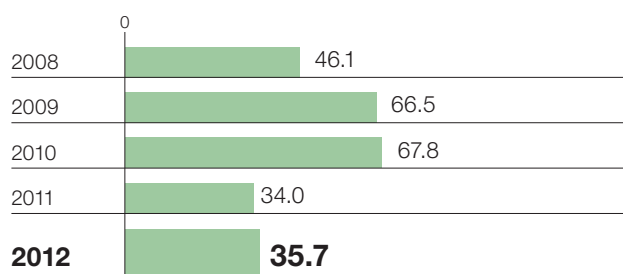


Total assets (Yen billions) / ROA (%)

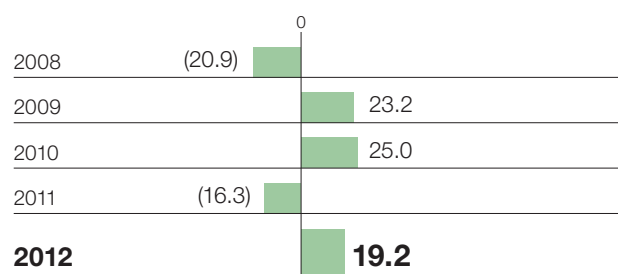


*ROA (Return On Assets): Calculated using ordinary income.

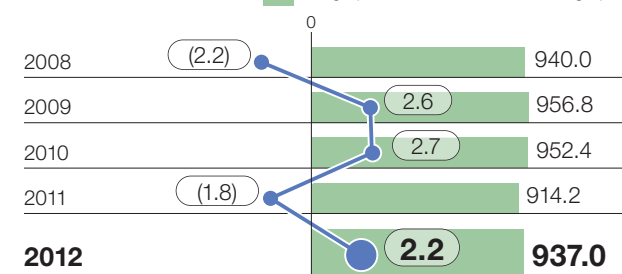
Net operating (Yen billions)



Net income (net loss) (Yen billions)



Net assets (Yen billions) / ROE (%)



*ROE (Return On Equity): Calculated using net income.

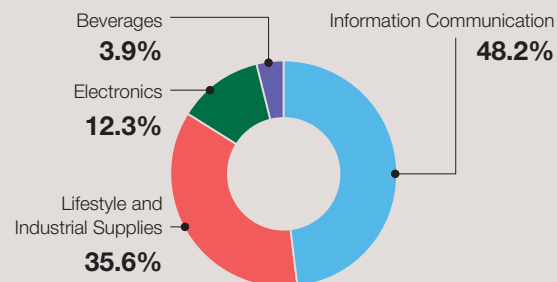
The DNP Group's Fields of Business

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, lifestyle 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 2013)



Printing

Information Communication

Publication printing

Magazines, books, e-books, e-publishing **1**, etc.

Commercial printing

Catalogs, pamphlets, posters, flyers, POP, digital signage **2**, etc.

Business forms

Passbooks **3**, smart cards **4**, IPS (services for printing and dispatching mail to individuals based on input data), etc.



Lifestyle and Industrial Supplies

Packaging

Container packaging materials **5** and sterile filling systems for food, beverages, confectioneries, daily necessities, medical, and other products

Lifestyle materials

Exterior and interior finishing materials **6** (flooring, decorative sheet metal, etc.) for home, office, rail cars, etc.

Industrial supplies

"PrintRush" self-service printing systems **7**, ink ribbons, softpacks for lithium ion batteries **8**, etc.



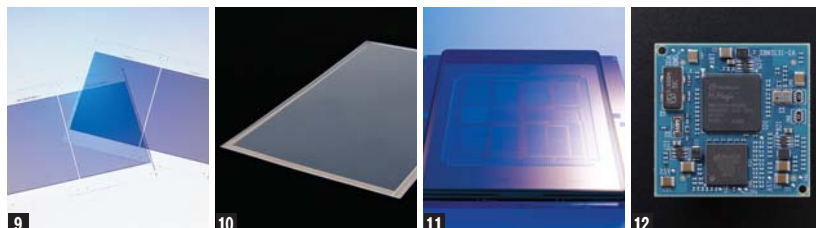
Electronics

Display components

LCD color filters **9**, touch panel sensors **10**, etc.

Electronic devices

Semiconductor photomasks **11**, lead frames, electronic modules **12**, MEMS products, etc.



Beverages

Beverages

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

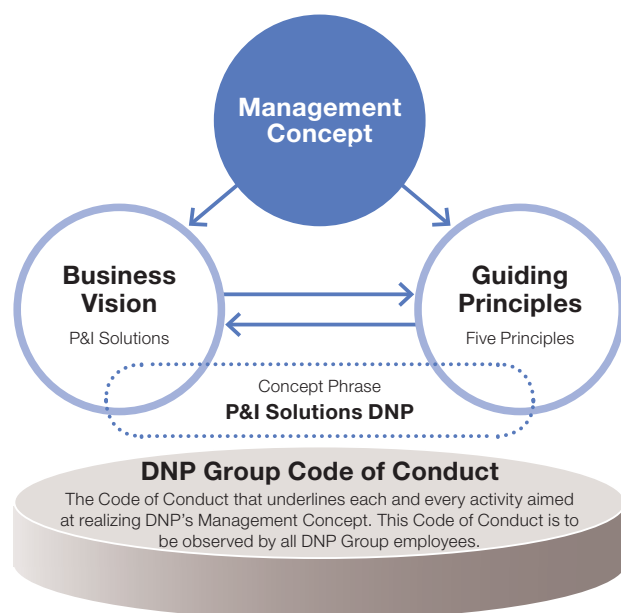


DNP Group Vision for the 21st Century

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 Technologies (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.

1. Contributing to the development of society	We shall contribute to the development of society by offering new values through our business.
2. Social contribution as a good corporate citizen	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.
3. Compliance with the law and social ethics	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.
4. Respect for human dignity and diversity	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.
5. Environmental conservation and the realization of a sustainable society	We are contributing to building a sustainable society so as to pass on the rich blessings of the Earth to future generations.
6. Realization of a 'universal society'	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.
7. Ensuring the safety and quality of our products and services	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.
8. Ensuring information security	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.).
9. Proper disclosure of information	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.
10. Realization of a safe and vibrant workplace	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.

Rapid economic progress and a rising global population are bound to continue through the twenty-first century, so we must do what we can to protect biodiversity and prevent further degradation of the environment. Different groups and organizations work to protect the global environment in different ways; we all must do what we can to pass on a healthy planet to future generations.

We follow the DNP Group Code of Conduct, which guides us toward environmental conservation and the realization of a sustainable society. The DNP Group Environmental Policy links this code to specific activities that take the environment into consideration within the scope of our various business activities.

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 lifecycle, 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)

The DNP Group is a signatory of the United Nations Global Compact and a “promotion partner” of the Nippon Keidanren’s 2009 Declaration on Biodiversity.

1 The Foundation of Our Environmental Activities

Environmental Management Structure

All companies in the DNP Group are striving to build an environmentally sustainable world through the efficient use of resources and various efforts—to prevent global warming, protect the environment, and preserve biodiversity.

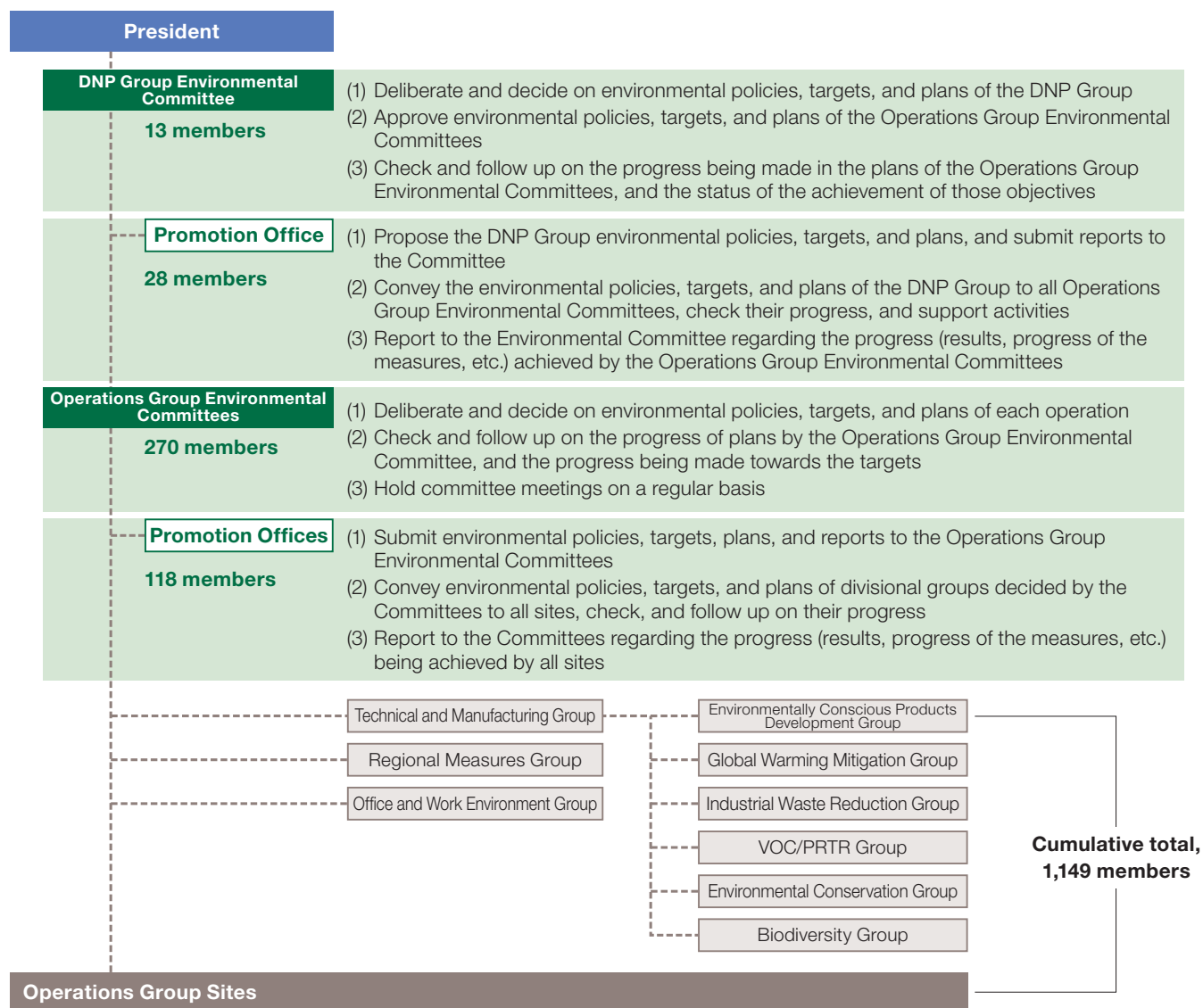
The DNP Group Environmental Committee was established to coordinate group-wide environmental activities, while Operations Group Environmental Committees preside over domestic and overseas activities within each business area. Each committee has its own promotion office.

● 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

We carry out such activities based on decisions made by the DNP Group Environmental Committee and the characteristics of different business areas, including activities at our locations outside of Japan.



1 The Foundation of Our Environmental Activities

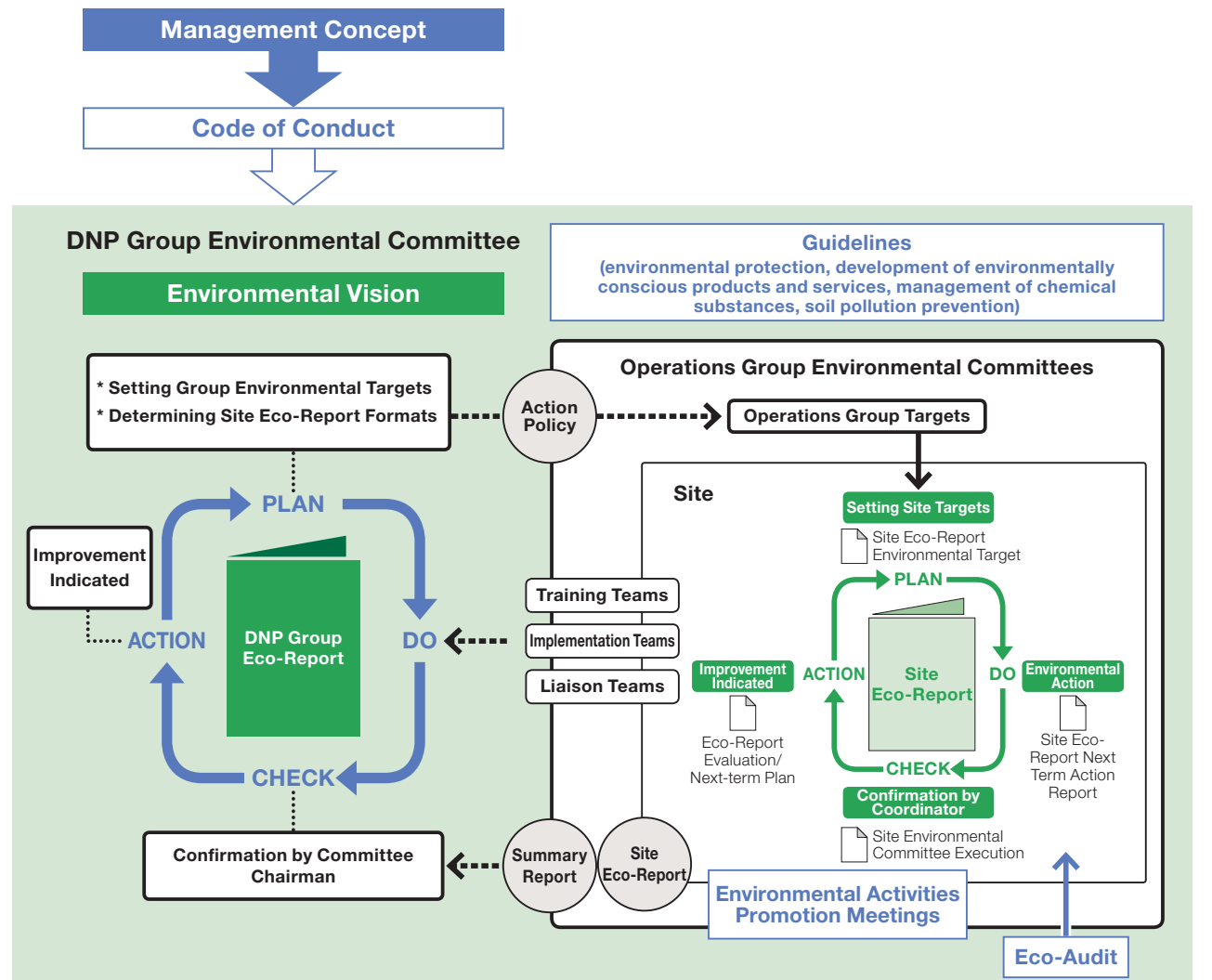
Environmental Management System

The DNP Group created its own environmental management system (EMS) in 1993, prior to the publication of ISO14001. Our EMS uses the twin tools of Eco-Reports and Site Eco-Reports set up by the DNP Group Environmental Committee Promotion Office as a framework. We also execute the “Plan-Do-Check-Action” cycle every six months.

The Eco-Reports cover trends in environmental issues and changes in applicable laws, our courses of action, and how well the DNP Group overall has achieved its targets. The Eco-Reports are distributed to the Operations Group Environmental Committees and to every business site. The Site Eco-Reports document each site’s targets, plans, and status of activities. The Operations Group Environmental Committees use the Site Eco-Reports to gain an understanding of the situation at each site and submit a summary report to the DNP Group Environmental Committee.

The DNP Group Environmental Committee and the Operations Group Environmental Committees carry out continuous improvement activities through training teams, implementation teams, liaison teams, etc. Progress is checked through periodic environmental activities promotion meetings.

Outline of the DNP Group Environmental Management System



1 The Foundation of Our Environmental Activities

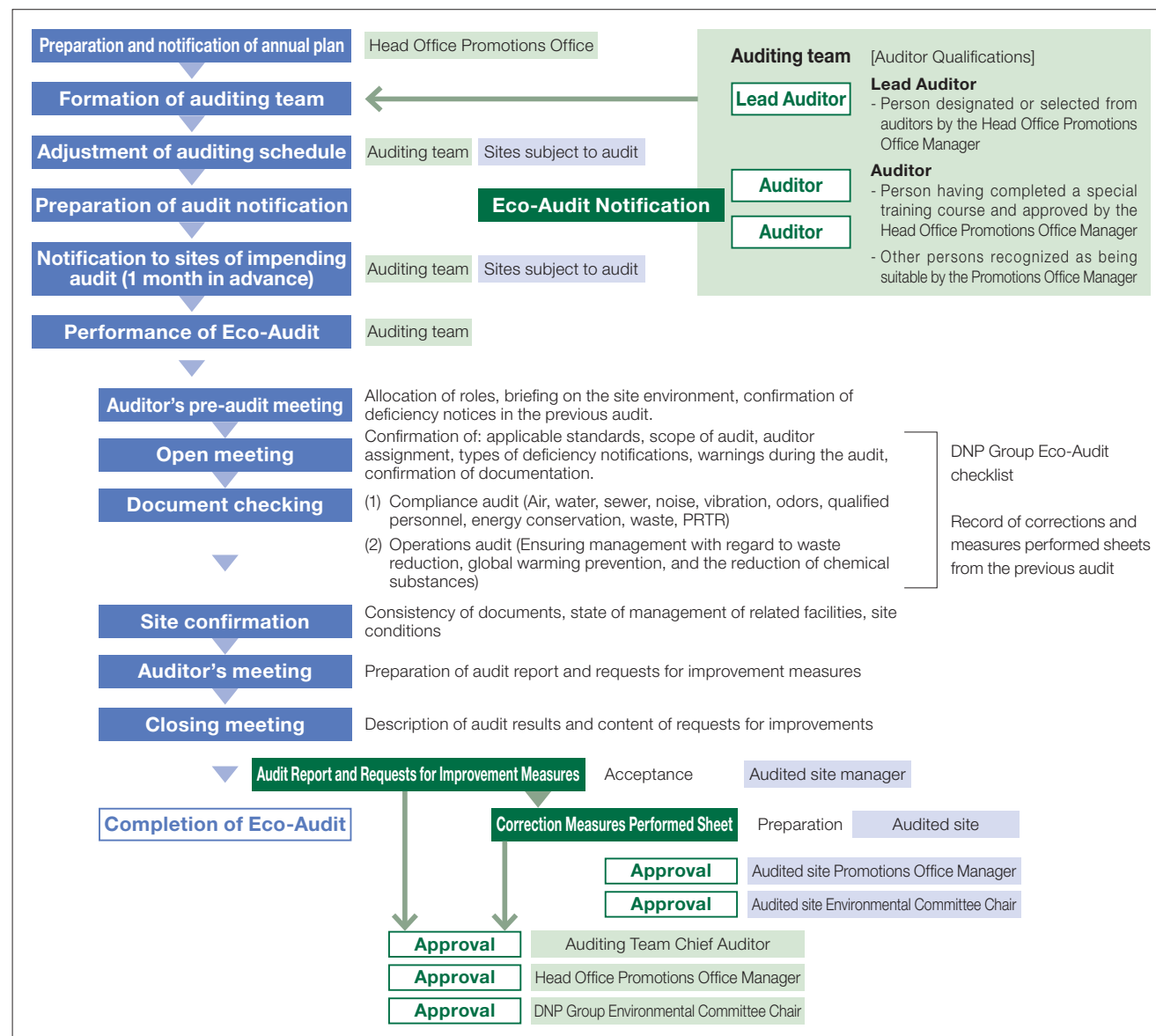
Eco-Audit Content and Flow

We began implementing “Eco-Audits” in 1996, so as to make our Environmental Management System (EMS) more effective.

Eco-Audits have the following features.

- (1) Because auditors are DNP employees from sites not being audited, they have specialized knowledge about the products and processes and are able to maintain an independent perspective, which produces meaningful, objective results from the audit.
- (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.

Under this system, when an audit reveals that corrective measures are needed at a site, a “corrective action request” is issued in writing and such actions as necessary are managed by the DNP Group Environmental Committee.



Number of sites audited	66 sites
Number of attendees at sites	458 persons
Cumulative auditor numbers	124 persons
Cumulative auditing hours	341 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 by qualified personnel and at specific sites and other legal violations, but we confirmed that the necessary improvement measures were being taken in each case.

The areas indicated as requiring improvement are analyzed and follow-up Eco-Audits will be carried out in FY2013.

Eco-Audit Content

Compliance Audit

(1) Document Audit

- Site location
- Type and number of legally-designated 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 and changes to legal notifications and reports
- 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

PLAN

Validity of Policy, Targets and Action Plans

- Consistency with DNP Group policies and targets
- Consistency with action plans and targets
- Implementation system and schedule
- Awareness level of employees

DO

Confirm status of plan implementation and target achievement

- Progress status of plan
- Achievement of targets

CHECK

Status of progress management of plan

- Holding of environment-related meetings
- Content of environment-related meetings

ACTION

Status of reviews by term

- Review of previous term results and reflection in plan

The DNP Group publishes regular Eco-Reports which cover trends in environmental regulations, and also conducts Eco-Audits to ensure full compliance with all laws and regulations. Our compliance efforts also include the 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 overflowing 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 FY2012, we also inspected tanks, waste storage sites, and areas for storing equipment that handles waste PCBs to prevent soil contamination.

● PCB Storage

PCBs are currently in storage at 19 sites, with 150 condensers and 18 transformers; a total of 168 units. The PCBs are contained in electrical equipment formerly used in substation facilities at our plants. Fluorescent lighting ballasts containing PCBs have also been placed in storage. Storage consists of special containers in designated storage rooms at each site, managed under the strictest conditions in accordance with applicable regulations to ensure there is no leakage or loss. The PCBs in storage 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 three incidents in which air or water quality standards 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 by working to make improvements and prevent recurrence.



Improving inspections of carbon gas vaporizers Improving inspections of activated carbon conveyance piping

Occurrences

(causes, improvements, and recurrence prevention 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 on-site storage of broken pieces of concrete. Under the guidance of the authorities the concrete was removed, and ongoing monitoring has confirmed that levels are within the legal limits.

September 8, 2011

Chikugo Plant, DNP Nishi Nippon*

Governmental water analysis → pH and BOD measurement values exceeded regulatory standards, so an improvement report was submitted.

The cause of excessive pH levels was a broken CO₂ vaporizer in the boiler drain water neutralizing apparatus. To prevent recurrence, inspections will be improved. The cause of excessive BOD was the use of too much boiler corrosion inhibitor. To prevent recurrence, the type of corrosion inhibitor was changed and the amount for injection was revised downward.

March 4, 2013

Kyoto Plant, DNP Technopack

Governmental measurement of concentration of volatile organic compounds (VOCs) in exhaust air →

Values for VOC concentration exceeded the legal limit, so an improvement report was submitted.

The cause of the problem was found in the equipment that collects VOCs. One of the four pipes carrying activated carbon for adsorbing VOCs was not functioning properly. To prevent a recurrence, inspections will be improved to check that the activated carbon is flowing properly.

* At the time of occurrence, the company name was Chikugo Plant, DNP Technopack.

1 The Foundation of Our Environmental Activities

Certification Acquisition Status

The DNP Group has established an independent environmental management system and is pursuing the acquisition of ISO 14001 certification at specific sites, depending on the type of work performed at those sites.

ISO14001 Certificates

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

Site Date	Registered *1	Organization
DNP Fine Chemicals Utsunomiya	Mar. 1997	JCQA
Akabane Area, DNP Logistics	Dec. 2006	AJA
Izumizaki Plant, DNP Energy Systems	Mar. 2007	DNV
Yokohama Plant, DNP Technopack	Dec. 2007	JIA-QA
Izumizaki Plant, DNP Technopack	Aug. 2008	DNV
Kasaoka Plant, DNP Fine Chemicals	Jan. 2009	JCQA
Mihara Plant, Advanced Optics Operations	May 2009	DNV
Okayama Plant, Advanced Optics Operations	May 2009	DNV
DNP Indonesia (Pulogadung/Karawang)	Aug. 2009	AJA
Hokkaido Coca-Cola Bottling	Feb. 2010	SGS
Sayama Plant No.2, DNP Technopack	Dec. 2011	JIA-QA

Eco Action 21 Certificates

Site Date	Registered *1	Organization
Tokyo Head Office, DNP Trading	Jan. 2006	IGES

Green Key Certification Status

Site Date	Registered *1	Organization
Hakone Training Center 2	May 2010	FEE

Status of Eco Stage (Stage 1) Achievement

Site Date	Registered *1	Organization
DNP Chubu	Feb. 2012	Ecostage Institute

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)

SGS

SGS Japan

IGES

The Institute for Global Environmental Strategies

FEE

Foundation for Environmental Education

*1 Indicates the first registration date.

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

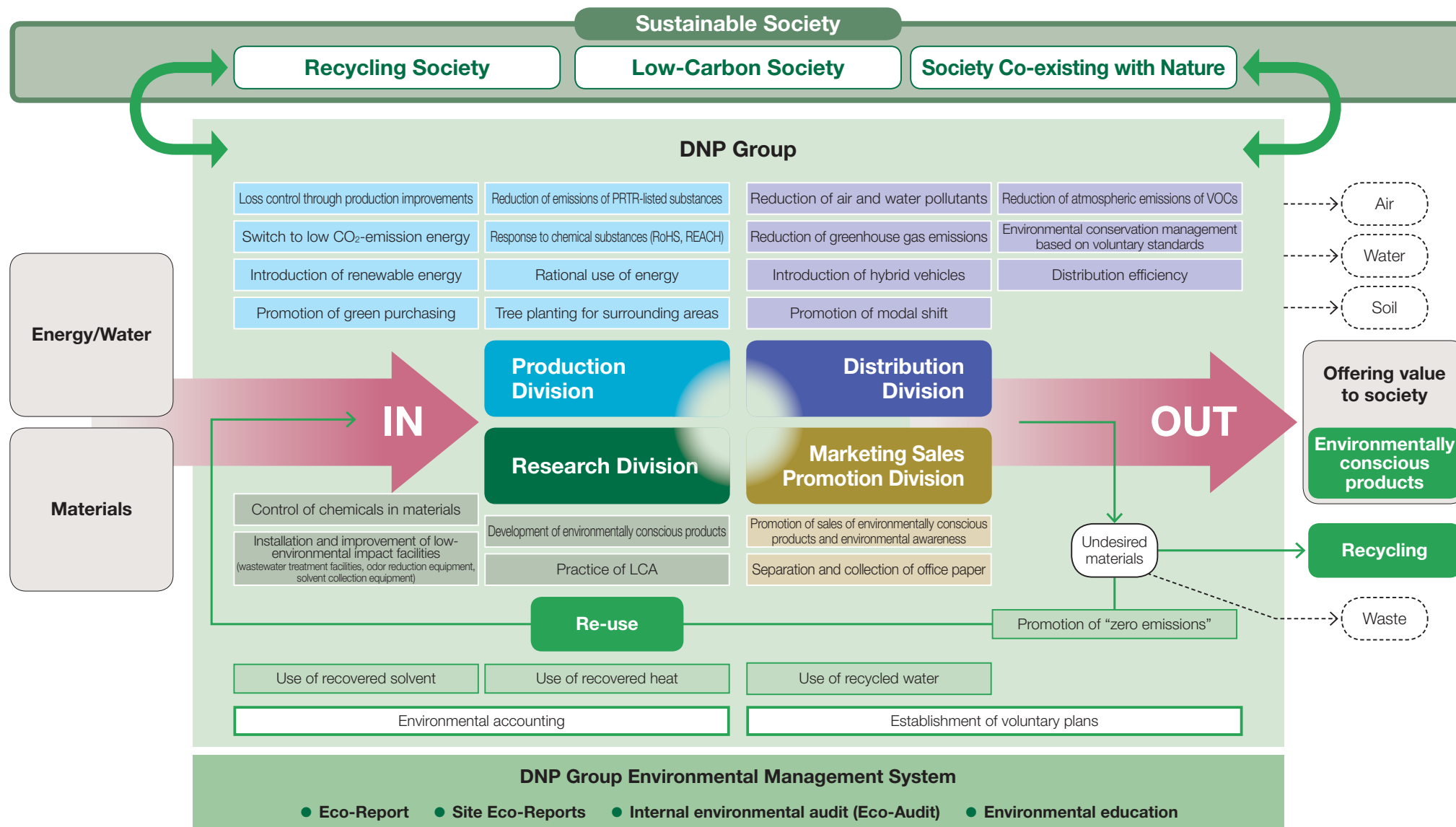
The DNP Group conducts environmental education programs according to level, working group, and function concerning the DNP Group's environmental conservation efforts, environmental knowledge, environmental laws, and domestic and overseas trends concerning environmental issues. Our goal is for employees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

A correspondence course is held twice a year for everyone in the DNP Group on ISO14001, lifecycle assessment (LCA), and other topics.

● New Awards System Instituted

In fiscal 2012 we introduced an awards system. The awards are presented once a year and are reserved for plants that have made a special contribution through their environmental activities. Such contributions include a notable achievement of DNP Group environmental targets, biodiversity protection activities, renewable energy utilization, etc. The system aims to further boost environmental protection efforts within the company. Winners are selected not only for specific accomplishments, but also in light of their compliance with internal environmental audits and meeting of voluntary standards for environmental conservation (additional to legal requirements for air and water quality).

Type of Training	Course Name/Description	First Held	Eligibility	Time of Year	Total Attendance
Education for New Recruits	Environmental Activity Overall (required) Basic environmental knowledge and conservation efforts of the DNP Group	1994	All new recruits	When joining the company	6,876 people
Technical Seminar	Environment/Chemicals (optional) Environmental laws and regulations	1999	Technicians	At irregular intervals	836 people
Network Learning	Biodiversity (required) Explanation of biodiversity and understanding of general efforts on its behalf	2010	All employees of the DNP Group	At irregular intervals	24,222 people
Eco-Report Training	Environmental Issues of the Group (required) Domestic and international trends in environmental issues, revisions in environmental laws, degree of achievement of environmental targets, new targets, issues concerning specific sites	1993	Environmental Committee Promotion Office members and site members	Eco-Report issued	Twice yearly



2 Environmental Impact Big Picture

Characteristics of Business Segments and Transition to Environmental Efficiency

The DNP Group manufactures a variety of different products closely related to the everyday lives of consumers (see page 4), with main materials such as paper, film, plastic, metal (iron, aluminum, etc.), and ink, as well as electronics.

● Characteristics of business segments

(see page 4 for main products)

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.

Other **d** Group companies manufacturing products not associated with the Information Communications, Lifestyle and Industrial Supplies, or Electronics segments, or those spanning multiple segments

● The DNP Group's transition to environmental efficiency

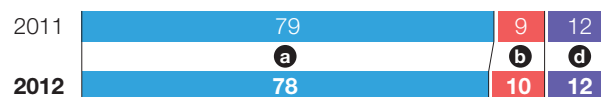
The DNP Group's environmental efficiency was evaluated using the JEPIX system. Significant reductions in both VOC emissions (one factor causing photochemical oxidants) and landfilled waste greatly improved environmental efficiency from the previous year.

🔍 JEPIX (Environmental Policy Priorities Index for Japan)

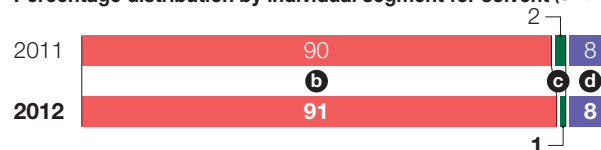
A single-index environmental evaluation system developed in Japan for measuring general environmental impact levels by calculating environmental impact points (EIP).

INPUT

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



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

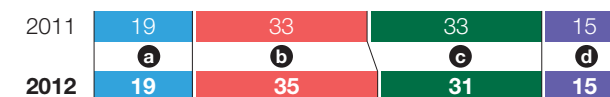


Utilities:
Percentage distribution by individual segment for water (Unit: %)



OUTPUT

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



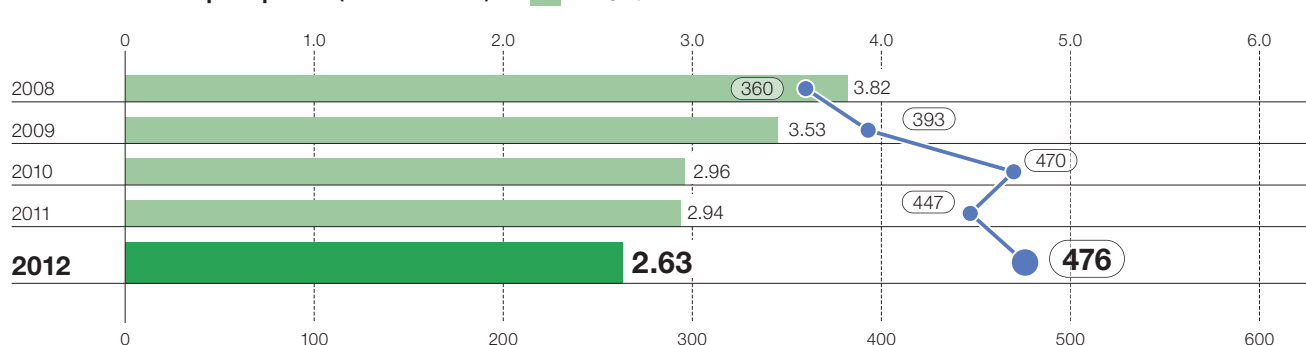
Emissions into bodies of water:
Percentage distribution by individual segment for water discharge (Unit: %)



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



Environmental impact points (Unit: billion EIP)



Environmental efficiency (consolidated domestic sales/EIP)



Main materials (Unit: 1,000 tons)

	2011	2012
Paper	1,824.8	1,745.9 (4.4% decrease)
Film	119.2	117.6 (1.3% decrease)
Plastic	113.6	111.6 (1.8% decrease)
Metal	50.5	53.6 (6.1% increase)
Ink	51.1	48.8 (4.5% decrease)
Others	98.1	88.5 (9.8% decrease)

Main secondary materials (Unit: 1,000 tons)

	2011	2012
Solvent	25.0	24.8 (0.8% decrease)
Acid and alkaline	13.9	8.0 (42.4% decrease)

Utilities

	2011	2012
Electricity (million kWh)	1,521.4	1,547.4 (1.7% increase)
City gas (million Nm ³)	115.6	99.0 (14.4% decrease)
LNG (million kg)	13.8	13.3 (3.6% decrease)
LPG (million kg)	6.5	6.9 (6.2% increase)
Fuel oil (kl)	1,000	700 (30% decrease)
Steam (TJ)	500	500 (—)
Kerosene (kl)	1.3	1,300 (—)
Water (million m ³)	15.9	15.3 (3.8% decrease)

Product Manufacturing Process

Information Communication

Books and periodicals, commercial printing, business forms

Lifestyle and Industrial Supplies

Packaging, decorative materials, industrial supplies

Electronics

Displays, electronic devices

Other

Ink, beverages, etc.

Current Status of Recycling in the DNP Group

	2011	2012
Recycled solvent (1,000 tons)	4.0	5.9
Usage ratio*1	1.2	1.2
Recycled acid and alkaline (1,000 tons)	3.2	2.7
Usage ratio	1.2	1.3
Recycled water (million m ³)	509.7	455.5
Usage ratio	33.0	30.8
Vapor generated from waste heat recovery (tons)	203,200	178,200

*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
Emissions from the use of electricity were recalculated to include past years using the FEPC's FY2005 coefficient.

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

Emissions into the air

	2011	2012
GHG*2 emissions (1,000 tons-CO ₂)	1,028	999 (2.8% decrease)
NOx emissions (tons)	740	706 (4.6% decrease)
SOx emissions (tons)	10	10 (—)
Atmospheric emissions of VOCs (tons)	5,506	5,173 (6.0% decrease)

Emissions into bodies of water

	2011	2012
Water discharged (million m ³)	13.6	13.2 (2.9% decrease)
COD emissions (tons)	40.4	39.0 (3.5% decrease)
Nitrogen emissions (tons) *3	13.5	11.9 (11.9% decrease)
Phosphoric emissions (tons)	0.4	0.4 (—)

Undesired materials generated (Unit: 1,000 tons)

	2011	2012
Total amount of undesired materials	357.9	327.0 (8.6% decrease)
Waste emissions	59.3	50.9 (14.2% decrease)
Landfill waste amount	2.7	1.8 (33.3% decrease)

Evaluation criteria: ◎ Target exceeded by a wide margin ○ Target achieved or making steady progress toward target △ Making active efforts but target not achieved × Efforts insufficient

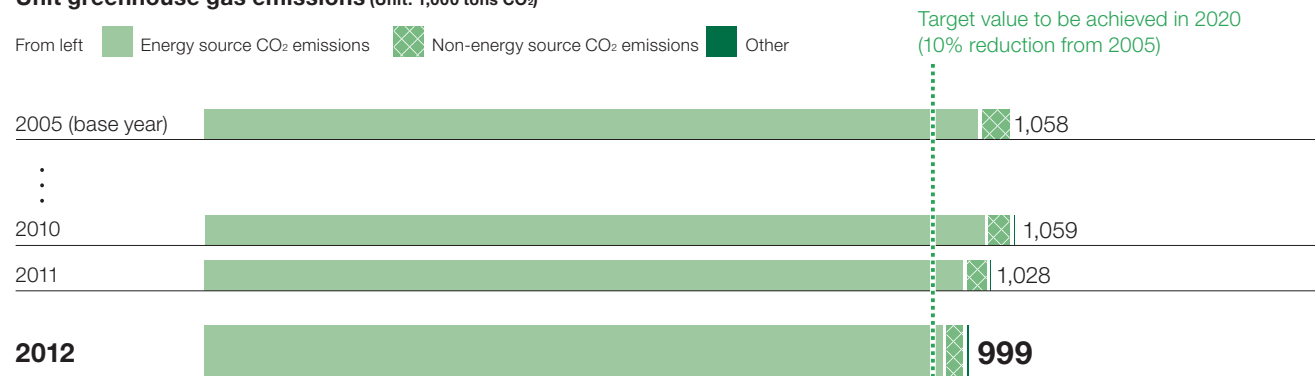
Topic	Reference page	Targets through 2015	2012 results		Evaluation
Global warming prevention	P 19 - 20	To reduce GHG emissions 10% from the 2005 levels by FY2020.	Emissions in 2005: 1.058 million tons Emissions in 2012: 0.999 million tons	5.6% decrease from that in 2005	○
Reduction of environmental impact incurred during transport	P 21	To reduce per-unit fuel use for transport (amount of fuel used/sales) by 1% per annum and 10% by FY2020 compared to FY2010.	Per unit in 2010: 1.61 kl/100 million yen Per unit in 2012: 1.59 kl/100 million yen	1.2% decrease from that in 2010	△
VOCs	P 23	To reduce emissions of VOCs (except for methane) by 20% compared to 2010 by FY2015.	Emissions in 2010: 6,729 tons Emissions in 2012: 5,173 tons	23.1% decrease from that in 2010	◎
Reduction of industrial waste	P 26 - 27	To reduce per-unit waste emissions (waste emissions/production) by 15% from the 2010 level by FY2015.	Per unit in 2010: 0.468 tons/10 million yen Per unit in 2012: 0.407 tons/10 million yen	13.0% decrease from that in 2010	◎
		To achieve zero emissions for the entire DNP Group by FY2015.	Landfill waste rate in 2011: 0.76% Landfill waste rate in 2012: 0.54%	0.22 point decrease from that in 2011	◎
Development and sales of environmentally conscious products and services	P 29 - 31	Development and sales of environmentally conscious products and services to achieve 400 billion yen by FY2015.	Sales of 336.0 billion yen in 2011 Sales of 355.7 billion yen in 2012	5.9% increase from that in 2011	◎
Green purchasing	P 29	To increase the rate of materials purchased according to the DNP green purchasing standards to 50% by FY2015.	45.8% green purchasing rate for materials in 2011 45.0% green purchasing rate for materials in 2012	0.8 point decrease from that in 2011	△
		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 FY2015.	61.2% green purchasing rate for materials in 2011 65.8% green purchasing rate for materials in 2012	4.6 point increase from that in 2011	○
Environmental conservation	P 12	To keep the maximum concentration of air emissions subject to emissions regulations at 70% of the required standard or less.	93% achievement rate of targets for 2012 (voluntary target)		○
		To keep the maximum concentration of water emissions subject to wastewater regulations at 70% of the required standard or less.	97% achievement rate of targets for 2012 (voluntary target)		○
		To keep the maximum concentration of odors at our site perimeters at 70% of the required standard or less.	97% achievement rate of targets for 2012 (voluntary target)		○
		To keep the maximum level of noise at our site perimeters at 70% of the required standard or less.	89% achievement rate of targets for 2012 (voluntary target)		○
		To keep the maximum level of vibration at our site perimeters at 70% of the required standard or less.	100% achievement rate of targets for 2012 (voluntary target)		○
Office environment	P 28	To increase the rate of the fractional recovery of waste paper to 70% of that for general waste.	75.6% recovery of waste paper in 2012		◎

The DNP Group's overall greenhouse gas emissions in FY2012 totaled 999,000 tons. This breaks down as follows: energy source CO₂ emissions, 975,400 tons; non-energy source CO₂ emissions, 21,800 tons; methane converted to CO₂ emissions equivalent, 40 tons; N₂O emissions, 510 tons. There were 60 tons of emissions of perfluorocarbons (PFCs) and 1,260 tons of sulfur hexafluoride (SF₆), but no emissions of hydrofluorocarbons (HFCs).

In FY2012, our main efforts to reduce CO₂ emissions included conserving energy used for air conditioning and power, improving production line operations, efficient cogeneration, etc.

In FY2013, we will continue our aggressive efforts to limit greenhouse gas emissions by continuing with the switch to low CO₂-emission fuels, introducing energy-saving equipment such as inverters and efficient air conditioners, and improving production efficiency.

Unit greenhouse gas emissions (Unit: 1,000 tons CO₂)



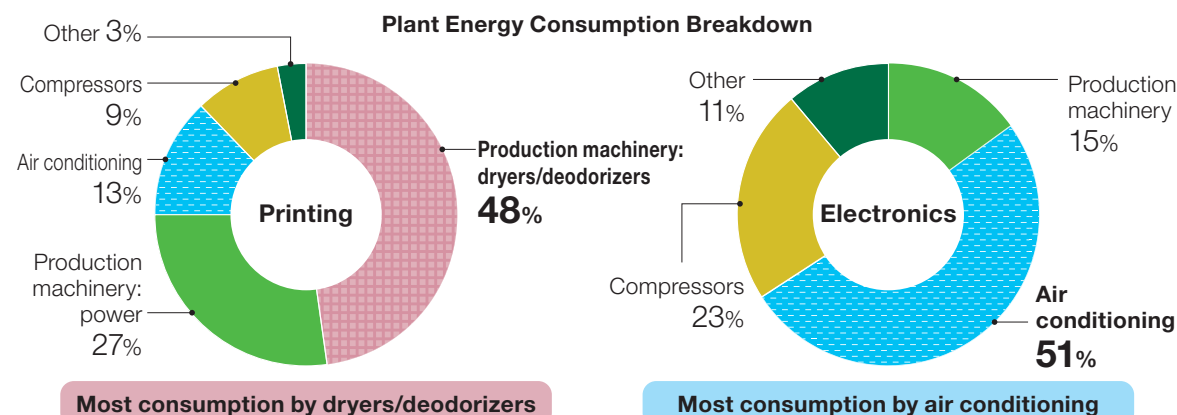
Greenhouse gas emissions volume The calculation of greenhouse gas emissions at domestic production sites due to electricity use, fuel use/combustion, burning of waste, and atmospheric emissions of HFCs/PFCs/SF₆ is performed according to type of energy. For city gas, the computation is performed according to the quantity of heat in Appendix 4, "List of City Gas Suppliers and Supplied Quantity of Heat" (revised April 15, 2013) of the Requirements for Filling Out Periodic Reports Based on Articles 15 and 19-2 of the Act on the Rational Use of Energy. For other types of energy, the calculation is performed using the calorific value and emission factors contained in the revised Act on Promotion Global Warming Countermeasures (an enforcement ordinance published March 31, 2010 by the Ministry of the Environment and Ministry of Economy, Trade and Industry). Additionally, for electricity emission factors, the FEPC's 2005 point-of-use CO₂ emissions unit value of 0.423 (kg-CO₂/kWh) was used uniformly. Also, the Guideline for Greenhouse Gas Emissions Calculation for Businesses (Draft Ver. 1.6) (July 28, 2005, partially revised; Ministry of the Environment) is used for recalculating the base year greenhouse gas emissions due to the change in our aggregate accounting range resulting from M&As. The 2005 (base year) figure in the graph above is the sum of 2005 domestic production site emissions and 2009 non-production site emissions.

Energy Loss Diagnostic Team

We have begun energy-saving activities through continuous improvement in manufacturing processes, in addition to actions taken to stop energy losses such as repairing air leaks. We are focusing on plants with high energy consumption, such as plants involved with printing and electronics.

At our printing plants, we looked at printing machine driers, which consume high volumes of power. We were able to reduce fuel gas consumption by optimizing both the quantity of airflow and the temperature at which drying and deodorization equipment functioned.

At the clean rooms in our electronics plants, where a high level of air cleanliness is required, we managed the cleanliness of the environment by quantifying volumes of dust collection, room pressure levels, and other factors. We then reduced excessive air conditioning to reduce energy consumption. In FY2013, when using gravure printing, we are planning to promote use of waste heat generated by solvent combustion equipment.



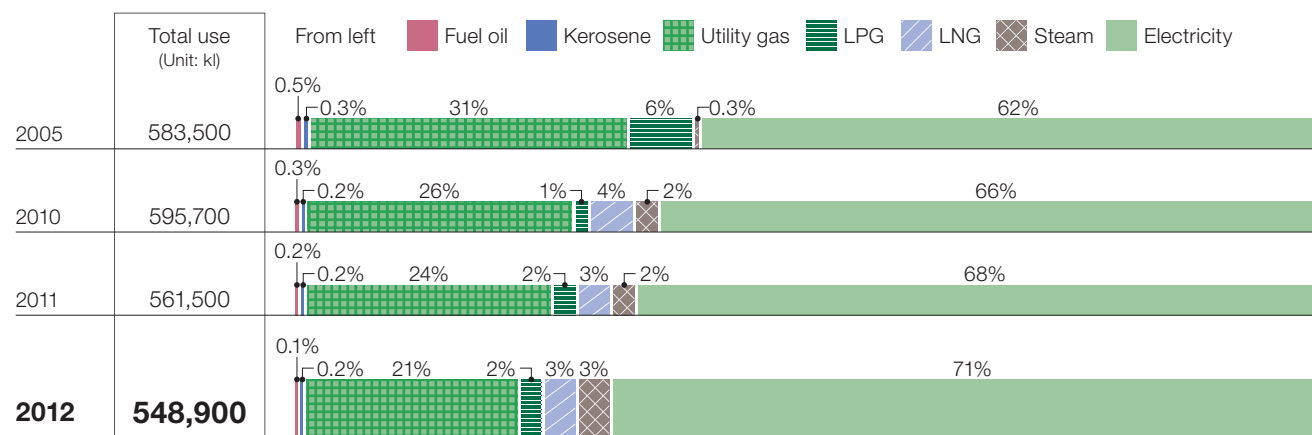
The DNP Group is making progress in the switch to low CO₂-emission fuels to reduce emissions of greenhouse gases.

We have been making the switch from diesel, kerosene, and similar high CO₂-emission petroleum fuels into low CO₂-emission utility gas and LPG (liquefied petroleum gas) since before 1990, and plan to continue to do so.

We are also moving ahead with renewable energy. DNP Energy Systems' Izumizaki Plant installed a solar power generation system in 2009 that generated 34,200 kWh of power in FY2012. In FY2011 DNP Technopack Tanabe Plant and Ichigaya Area South Facility both installed solar systems that have capacities of 30 kW and 30.95 kW, respectively. In FY2012 these produced 33,316 kWh and 34,128 kWh, respectively. Furthermore a 10 kW solar system was installed to the Ichigayatamachi Building.

We also currently purchase 1.15 million kWh of Renewable Energy Certificates annually to cover part of the power consumption used by manufacturing processes within the group (for printing, bookbinding and processing), the showroom of the Ichigayatamachi Building and other facilities.

Fuel composition



Note: Gasoline and diesel fuel for automobile use are also used (less than 0.2%) in addition to these fuels above.

Sayama Plant No.1, DNP Technopack Ion Adsorption-Type Total Heat Exchanger Introduced

Uchida Ryota, Technical Engineering Division, Sayama Plant No.1, Packaging Operations

DNP Technopack's Sayama Plant No.1 prints on food packaging and medicine bags, and performs other functions.

A large amount of ventilation is required at the plant to maintain the work environment. However, when you ventilate this air, into which a lot of energy has been invested to maintain it at the right temperature and humidity, that energy is released outside, generating loss.



The ion adsorption-type total heat exchanger introduced at the plant is the first one in use at DNP. It collects only the energy from the exhaust air pushed outside. The rest of the air simply passes through and is released outside, so it is possible to maintain the indoor environment optimally while reducing energy consumption significantly. Between the time the system went into operation in November 2012 and March 2013, steam use for heating and humidifying was reduced by 1,200 tons in winter, and the estimate for CO₂ reductions is about 300 tons on an annualized basis.

We aim to find more ways to save energy in the future as well, and take more aggressive measures against global warming.



3 Achieving a Low-Carbon Society

Anti-Global Warming Measures in Transport and at Our Offices

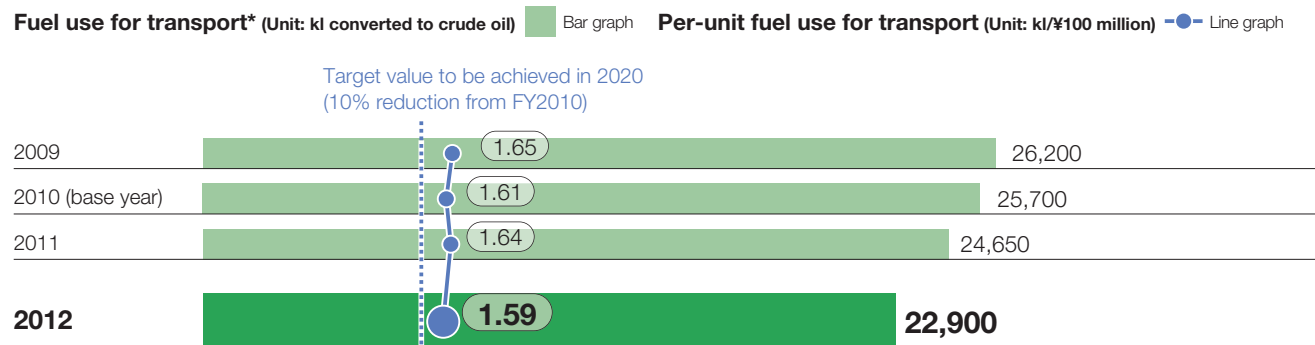
● Efforts in Transport

In FY2012, the group's overall transport volume (at domestic manufacturing sites) was 334 million ton-kilometers. 22,900 kiloliters of energy (converted to crude oil) was used in shipping, producing 58,200 tons of CO₂ emissions. The per-unit fuel use for transport (amount of fuel used/sales) was 1.59 kl/¥100 million, an increase of 1.2% from 2010.

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

● Global Warming Measures for Offices and Homes

The DNP Group has been engaged in efforts to reduce CO₂ emissions both for offices and homes since 2005. In FY2012, we set a target for a 20% year-on-year reduction in power consumed at our offices throughout Japan. Specific actions that we implemented and will continue implementing, beyond regular energy-saving measures, include completely revising the number of lighting fixtures and level of illumination needed, extending the "cool biz" dress code period, reviewing how air conditioning is run, and expanding the use of LED lighting.



* Amount used for domestic cargo transport.

3 Achieving a Low-Carbon Society

Calculation of GHG Emissions across Entire Supply Chain (Scope 3)

Greenhouse gas (GHG) emissions are one cause of global warming. The DNP Group is taking active steps to reduce GHG emissions on a global scale.

In developing environmentally conscious products, we consider it vital to understand GHG emissions in the overall lifecycle of a product. We have therefore calculated GHG emissions across our entire supply chain (for FY2010 to FY2012) (Scope 3), not only at the stage of manufacturing but also including indirect emissions.

The Scope 3 calculations enabled the DNP Group to limit GHG emissions across our entire supply chain in 2012 (excluding Scope 1 and Scope 2) to approximately 5.13 million tons. Of this amount, “Purchased goods & services” (Category 1) accounted for the largest portion at over 60%, followed by “End of life treatment of sold products” (Category 12) and “Downstream transportation & distribution” (Category 9), each of which accounted for approximately 13%. The three categories together accounted for 90% of the total. We will continue to reduce emissions across our entire supply chain in the future based on these results.

Calculation Method

The Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE) formulated and released the “General Guidelines on Supply Chain GHG Emission Accounting, Ver 1.0”^{*1} the standards of which our calculations^{*2} are based upon. (Calculated using the 11 categories concerning DNP of the 15 Scope 3 categories. Three categories were not applicable, so were excluded from the calculation.)

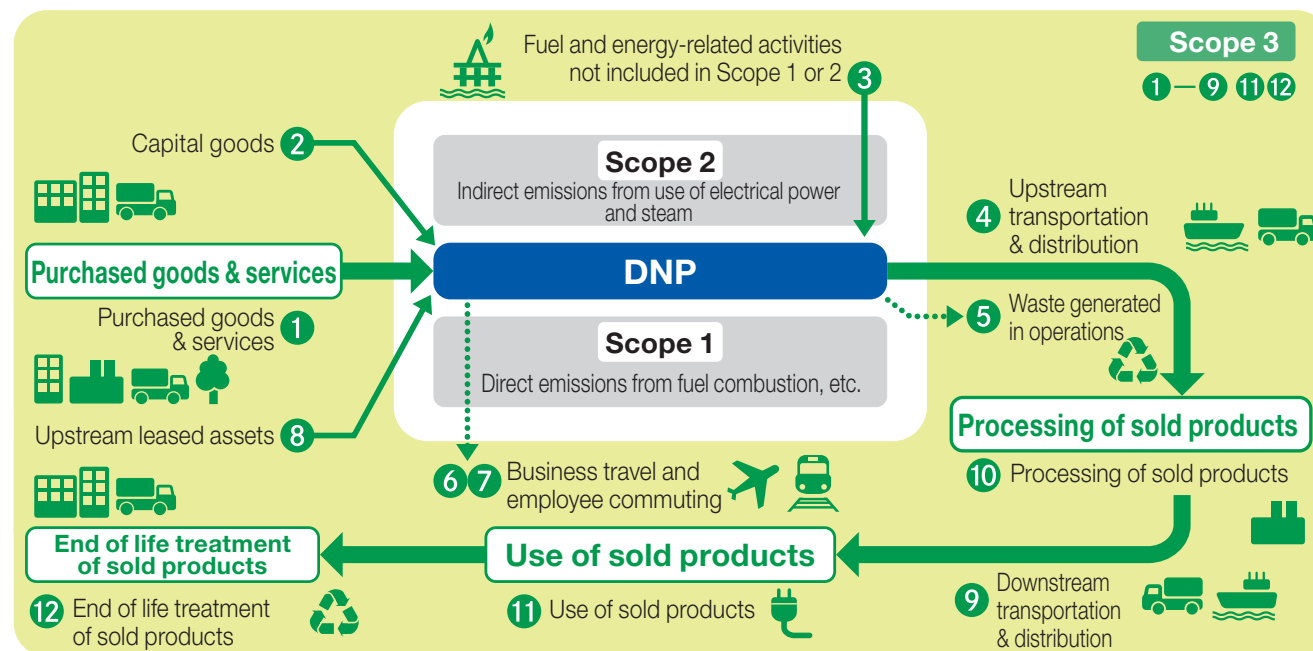
^{*1} These guidelines were drawn up for the purpose of providing calculation methods, etc., that are easy to use for Japanese companies based on the Scope 3 Standard, an international standard from the GHG Protocol.

^{*2} All DNP business sites in Japan were set as the scope of calculations (excluding Hokkaido Coca-Cola Products and the Bookstore Group.)

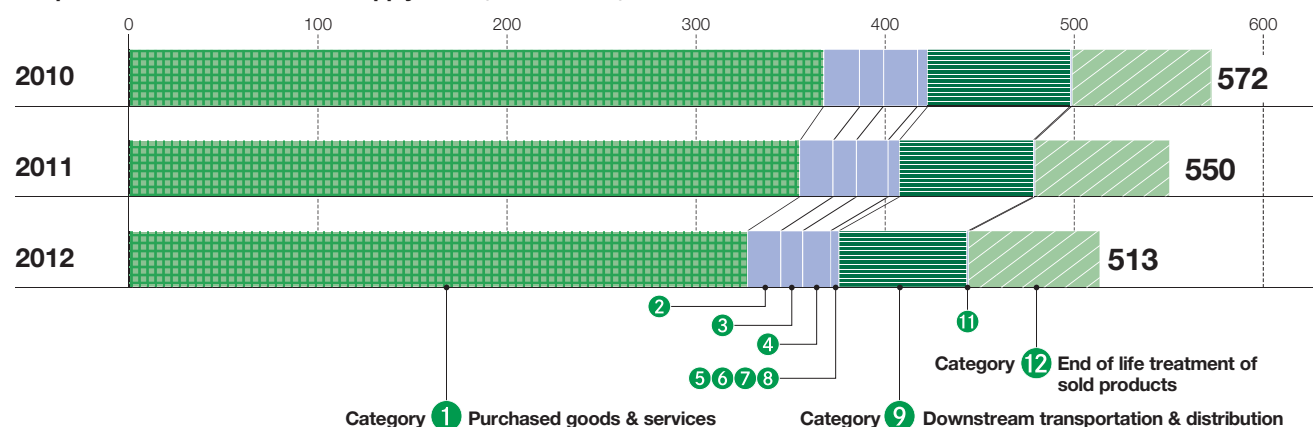
In addition, the unit values database used for our calculations can be viewed on the MOE’s Green Value Chain Platform.

<http://www.gvc.go.jp/en/guideline.html>

Scope 3 management of greenhouse gas emissions across the entire supply chain



Scope 3 GHG emissions across supply chain (Unit: 10,000 tons)



4 For Reduction of Environmental Pollutants

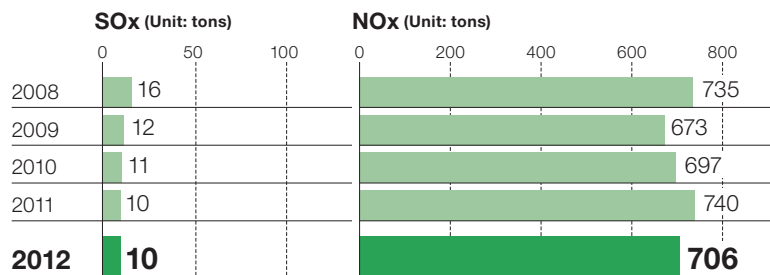
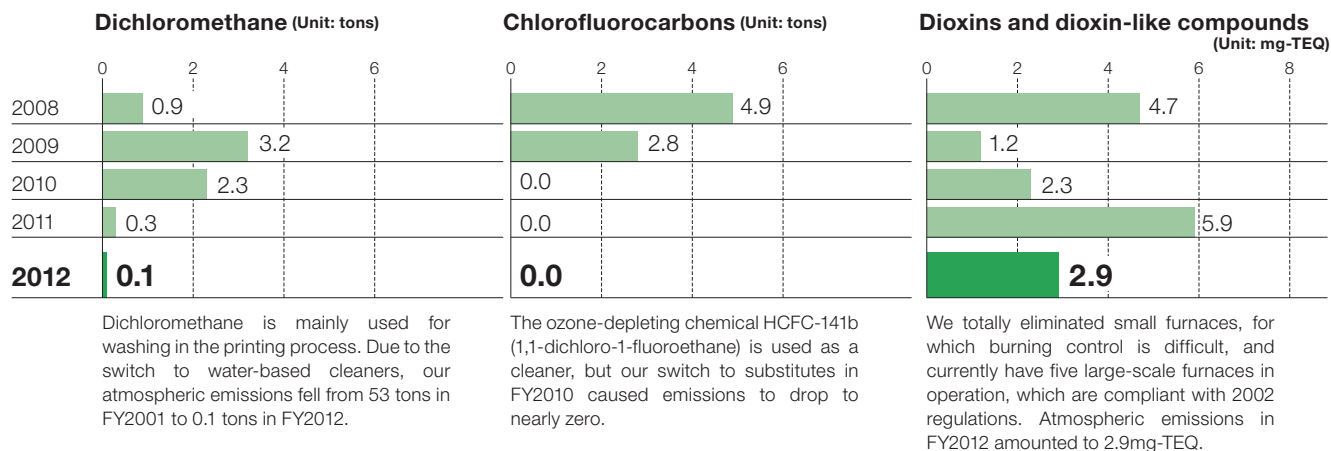
Reducing Air Pollutants

The Air Pollution Control Act regulates substances such as toxic air pollutants and ozone depleting substances, including sulfur oxide (SOx) and nitrogen oxide (NOx), as well as volatile organic compounds (VOCs). These substances have an impact on health and the global environment, causing problems such as photochemical smog 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 compounds). 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 FY2012 in a 23.1% reduction in VOC emissions to 5,173 tons, in comparison with 2010 (base year).

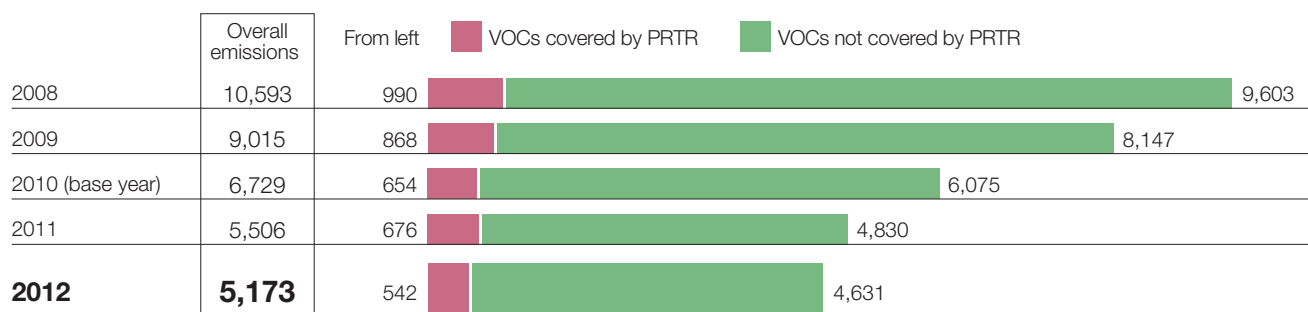
Air pollutant emissions



Sulfur oxide is emitted through burning high-sulfur fuel oil and kerosene. We have continued to shut down boilers, and are reducing sulfuric acid emissions.

Nitrogen oxide 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 FY2012 amounted to 706 tons.

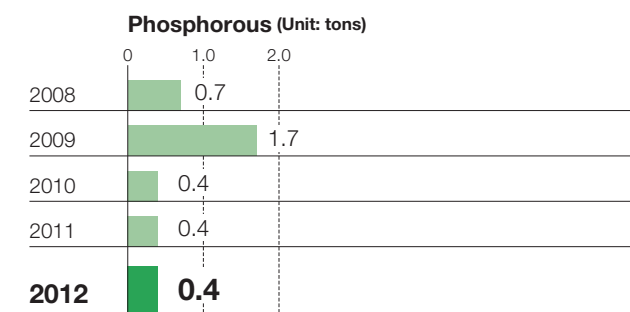
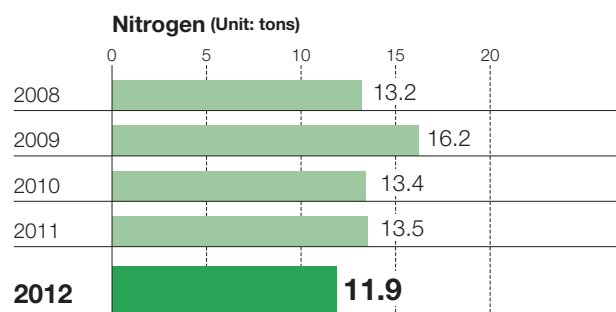
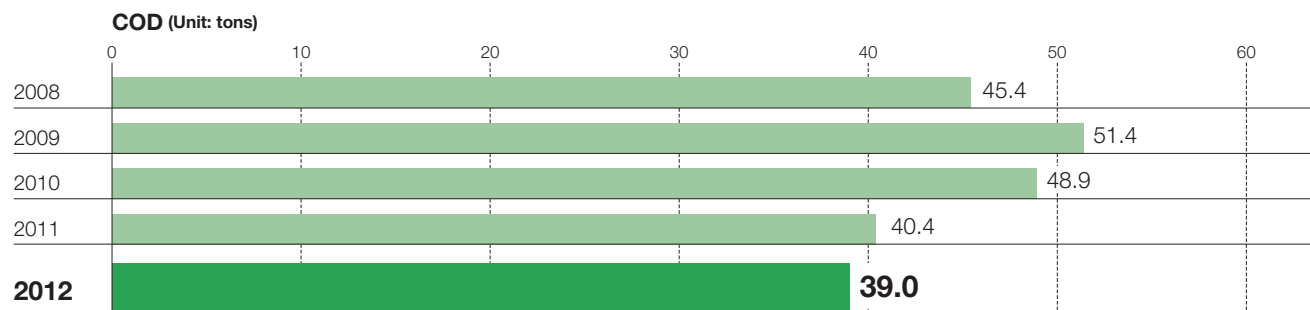
Atmospheric emissions of VOCs (Unit: tons)



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 FY2012, such as changing out the filtration membranes and absorbent materials in wastewater processing equipment, improving wastewater treatment in our kitchens, and reducing COD (chemical oxygen demand) and nitrogen emissions, but there was no decrease in emissions of phosphorus.

Water pollutant emissions



4 For Reduction of Environmental Pollutants

Chemical Substances Subject to the PRTR Law

This data is compiled for PRTR-listed chemicals in the Law on Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

FY2012 results are shown in the table to the right. (Listed to 3 significant figures, or to the nearest 0.1 kg for figures under 10 kg)

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

Substance	Handled	Consumed	Removed/ Consumed	Recycled	Emissions Volume			Transfer Volume	
					Atmosphere	Public Waterways	Soil	Sewer	Off-site
2-aminoethanol	34,400	—	—	—	—	—	—	23,600	10,900
Indium and its compounds	32,000	7,360	372	23,700	—	—	—	—	574
Ethylbenzene	148,000	1,460	103,000	40,900	2,030	—	—	—	1,070
Ferric chloride	1,780,000	172,000	756,000	716,000	—	—	—	—	138,000
Epsilon-caprolactam	6,680	3,070	2,490	—	143	—	—	—	977
Xylene	163,000	1,680	120,000	37,800	2,200	—	—	—	1,480
Silver and its water soluble compounds	6,040	5,190	—	852	—	—	—	0.3	—
Chromium and chromium(III) compounds	49,200	19,600	10.1	11,300	—	—	—	2.1	18,300
Hexavalent chromium compounds	14,000	6,190	7,580	—	—	—	—	0.3	257
Cobalt and its compounds	1,090	602	—	133	—	—	—	—	354
Inorganic cyanide compounds (except complex salts and cyanate)	1,710	—	238	—	494	—	—	—	980
Dichloromethane	2,540	—	989	—	73.0	—	—	—	1,480
N,N-dimethylformamide	4,440	1,730	2,600	—	68.0	—	—	—	49.9
Dioxins and dioxin-like compounds	—	—	—	—	2.9	—	—	—	146
Water soluble copper salts (except complex salts)	556,000	121,000	56,500	375,000	—	—	—	1.2	3,850
Sodium dodecyl sulfate	1,580	1,480	—	—	—	—	—	—	92.0
1,2,4-trimethylbenzene	16,600	—	6,530	10,000	98.0	—	—	—	—
1,3,5-trimethylbenzene	7,420	—	4,690	2,560	37.0	—	—	—	132
Toluene	11,700,000	1,420,000	6,790,000	2,370,000	533,000	—	—	—	614,000
Naphthalene	3,280	—	3,170	—	13.0	—	—	—	96.0
Nickel	68,500	56,000	1,390	11,100	—	—	—	—	—
Nickel compounds	23,800	1,550	—	1,050	—	—	—	—	21,200
Bis(2-ethylhexyl)phthalate	6,290	3,830	1,440	—	85.0	—	—	—	933
N-hexane	6,310	—	4,530	1,240	445	—	—	—	91.0
1,2,4-benzenetricarboxylic acid 1,2-anhydride	4,120	3,620	—	—	—	—	—	—	498
Poly(oxyethylene) alkyl ether *	1,780	1,740	—	—	—	—	—	—	38.8
Formaldehyde	3,410	—	—	—	3,410	—	—	—	—
Manganese and its compounds	4,150	2,200	—	499	—	—	—	155	1,300
Methacrylic acid	12,500	12,200	16.1	—	9.5	—	—	—	214
Methacrylic acid 2,3-epoxypropyl	12,300	12,000	17.9	—	8.8	—	—	—	217
Methyl methacrylate	2,610	2,550	3.3	—	4.2	—	—	—	54.9
Methylenebis(4,1-phenylene) diisocyanate	2,480	2,480	—	—	—	—	—	—	—
Morpholine	4,810	4,520	—	3.4	—	—	—	262	19.4
Tritolyl phosphate	5,350	5,090	—	204	—	—	—	—	60.5
PRTR-listed substances	14,700,000	1,870,000	7,860,000	3,600,000	542,000	—	—	24,000	817,000

* Limited to alkyls of carbon 12 through 15 or their compounds

5 Building a Recycling Society

Reducing Undesired Material in Manufacturing Processes

To help build recycling into society we are engaged in efforts to improve resource productivity and increase the recycling of undesired material. These efforts are premised on the waste-free use of raw materials that go into manufacturing processes. Undesired material is recycled as much as possible to utilize limited resources efficiently.

Tokyo Plant, DNP Lifestyle Materials Major Reduction in Emissions per Unit by Turning Waste into Valuable Materials

Yosuke Hidai, General Affairs Dept., DNP Lifestyle Materials

Based on DNP's original electron beam (EB) technology, DNP Lifestyle Materials' Tokyo Plant produces many kinds of lifestyle products such as interior finishing materials for homes and automobiles to support comfortable living.

In FY2012 we made a strong push to reduce emissions per unit by reducing waste, bringing together production floor workers and office staff. Specific actions included improving production efficiency through the Production 21 Activities and getting every employee in waste-generating divisions to sort items, as well as re-evaluating our business partners to be able to turn waste into valuable materials.

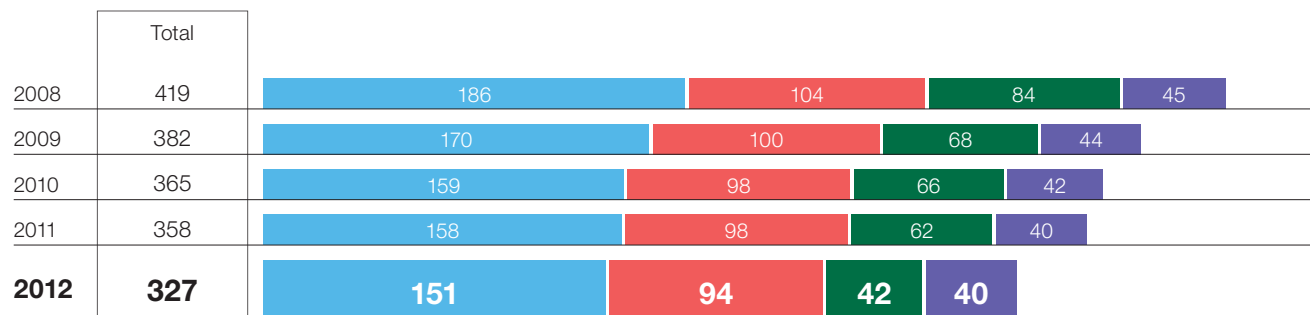
These actions resulted in a 54% reduction in waste emissions per unit from FY2011. By turning waste into valuable materials, the percentage of the total volume of undesired materials produced which was accounted for by valuable materials was 53% (a 39% improvement over FY2011).

We will continue to analyze waste, break it down further, and take action at plants as a whole to reduce waste loss and expand the number of valuable materials.

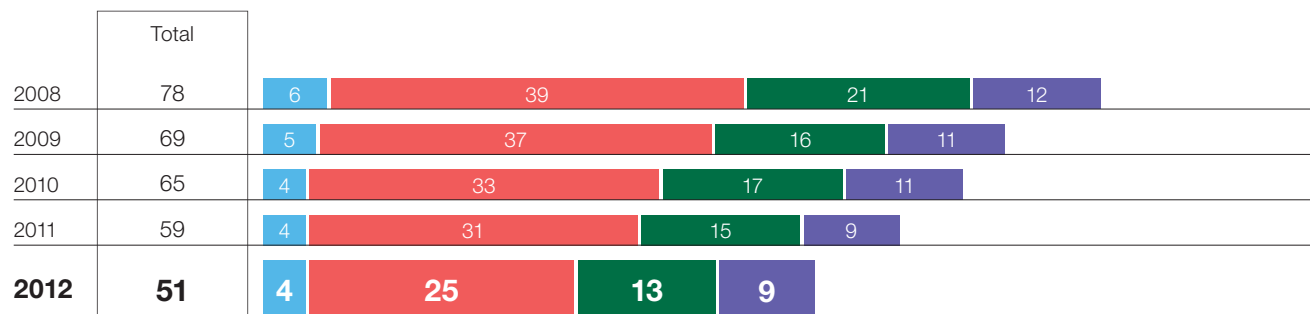


From left ■ Information Communication ■ Lifestyle and Industrial Supplies ■ Electronics ■ Other

Undesired material generation (Unit: 1,000 tons)



Waste emissions (Unit: 1,000 tons)



🔍 Production 21 Activities

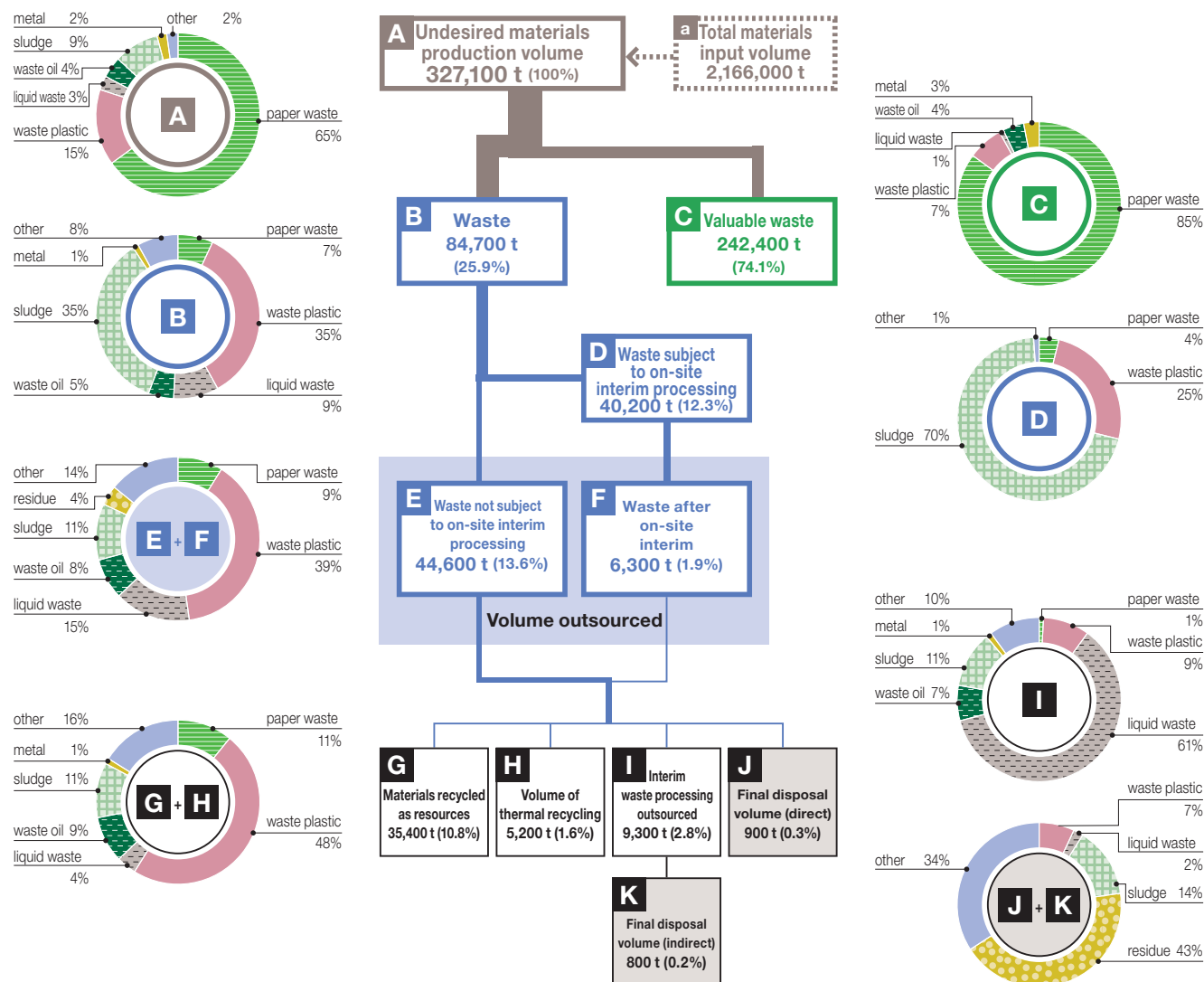
We are working together as a group to strengthen our production capabilities and improve responsiveness to marketplace changes in order to realize the DNP Group Vision for the 21st Century. We are creating a manufacturing structure capable of constant improvement with sustainable strength to improve profitability and asset efficiencies in manufacturing.

5 Building a Recycling Society

Breakdown of Undesired Materials Volume

We use waste per unit of production (waste emissions $(E + F)/\text{production volume}$) as a productivity indicator. In FY2012 waste per unit of production was 0.407 t/¥10 million, which is an improvement over 0.468 t/¥10 million in FY2010. This reduction was achieved in part thanks to productivity gains made by implementing the Production 21 Activities, which set out to create a resilient production system in terms of quality, cost, delivery, and other factors. It was also the result of a reduction in waste volume through the extraction of valuable materials such as waste plastic and waste oil.

We use “zero emissions” as the indicator for the promotion of recycling undesired materials. Zero emissions represents an effort to reduce the landfill waste amount $(J + K)/\text{undesired materials production volume A}$ to 0.5% or less; the rate for the group overall in FY2012 was 0.54%, an improvement from 0.76% in the previous year. At present, 62 of our 69 manufacturing sites have achieved zero emissions.



5 Building a Recycling Society

Use of Recycled Resources

● Office Paper Recycling

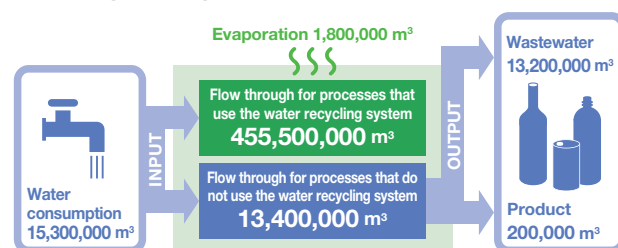
The business of the DNP Group is closely connected to paper, and we have been separating and collecting paper at our offices for some time. In FY2012, waste paper was collected at 55 of 178 eligible offices, primarily large-scale offices, for a recycling rate of 75.6%, exceeding our target of 70%.

● Use of Recycled Water

We are working hard to conserve water resources by promoting a closed-loop system in which water is recycled and reused instead of released. In this way we have been able to cut down on the high volume of water required for cleaning our products, air conditioning, and heating and cooling production machinery. We used 455.5 million cubic meters of recycled water in FY2012, about 30.8 times the amount of pipe water we used.

We are also making effective use of rainwater in our office buildings and other sites. In FY2012 we used 8,490 cubic meters of rainwater for toilet flushing and the watering of grounds.

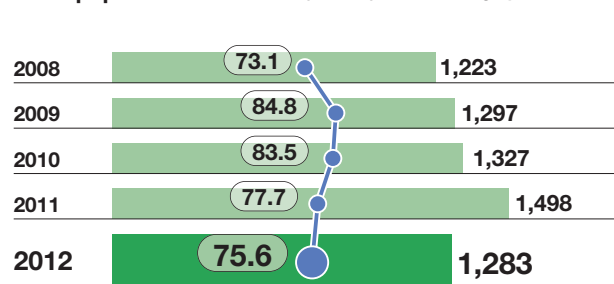
Water Input-Output



Note: Hokkaido Coca-Cola Bottling and DNP Fine Chemicals use water in products.

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

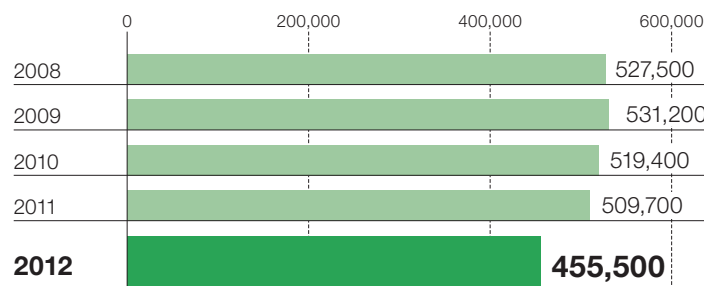
Used paper collection rate (Unit: %) Line graph



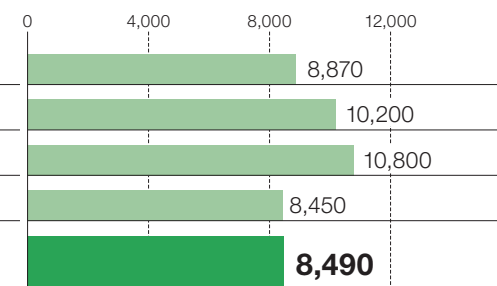
Waste paper collection				General waste	Waste paper collection + general waste amount	Number of sites
Cardboard	Magazines	Newspapers	High quality paper			
162	874	48	139	449	1,672	34
262	913	28	94	233	1,530	32
336	874	29	88	262	1,589	34
337	995	38	129	431	1,929	49
225	886	37	135	413	1,696	55

Waste paper collection rate: Waste paper collection/(waste paper collection + general waste amount (excluding cans, bottles, and garbage)) × 100

Recycled water use (Unit: 1,000 m³)



Use of rainwater in office buildings, etc. (Unit: m³)



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 carry out “green purchasing” to reduce the environmental impact of DNP’s product manufacturing processes. Green purchasing involves selecting and buying the most environmentally conscious materials, parts, equipment, office supplies, and other items—from the upstream production processes forward. 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

Based on laws and regulations such as the RoHS Directive and REACH Regulations adopted by the EU, as well as client demand, we monitor and manage chemicals contained in the products we manufacture.

This year, to improve our apprehension and management of chemicals contained in raw materials,

we revised the DNP Group Management Criteria for Chemicals to use common formats such as MSDSplus and AIS developed by JAMP for transmitting chemical information.

We will continue to work with suppliers and clients to strengthen management of chemicals in products.

🔍 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.

🔍 REACH Regulations

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

🔍 JAMP (Joint Article Management Promotion-consortium)

This organization promotes cross-industry action aimed at creating and spreading the use of a framework for properly managing information on chemicals contained in products and for easily disclosing and transmitting that information through supply chains.

● Development and Sales of Environmentally Conscious Products and Services

The DNP Group created the Environmentally Conscious Products and Services 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 their lifecycle.

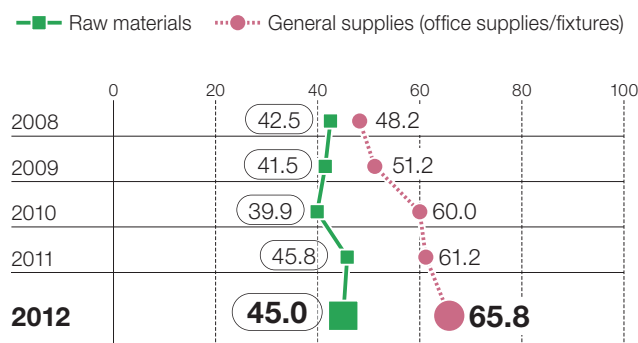
Our sales of environmentally conscious products reached ¥355.7 billion in FY2012.

We also revised our development policy and redefined products and services (see p. 30) to expand development and sales. These will be applied in FY2013.

🔍 Lifecycle

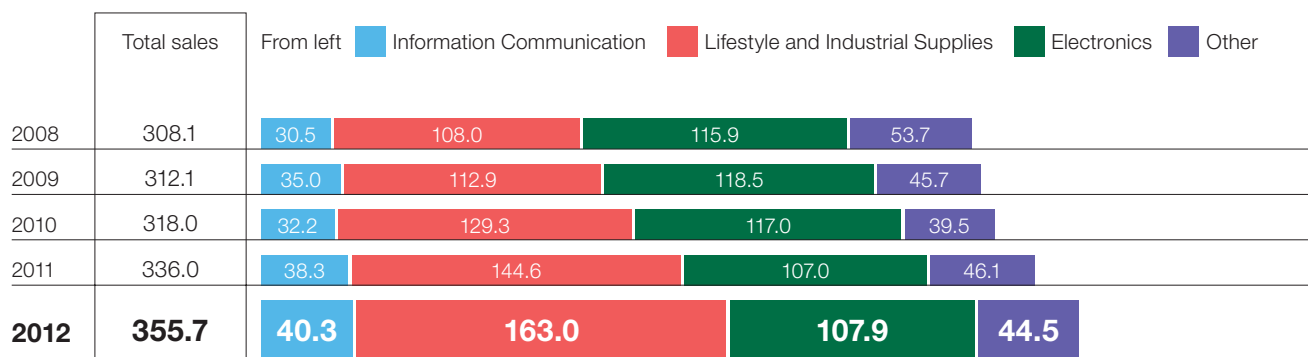
This covers every aspect of the lifetime of a product or service, from the point where the material resources that go into its manufacture are extracted from the Earth through production, distribution, use, and finally to when any waste is returned to the Earth.

Purchasing rate for environmentally conscious products
(Unit: %)



Note: Aggregate calculation of data for 45 sites under the direction of the DNP Purchasing Division.

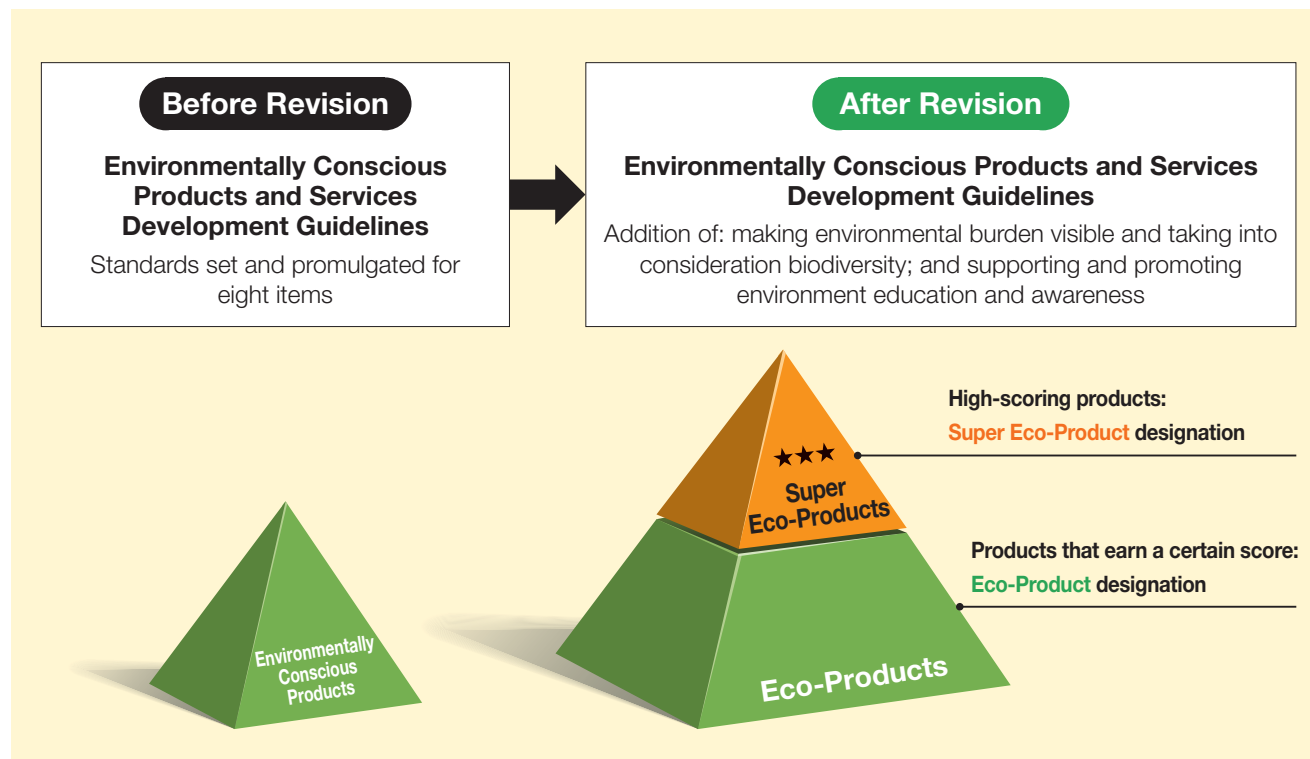
Sales of environmentally conscious products and services (Unit: billion yen)



In order to expand the development and sale of environmentally conscious products and services, we revised our Environmentally Conscious Products and Services Development Guidelines. Specifically, we added two more items to the list of eight—making environmental burden visible and taking into consideration biodiversity; and supporting and promoting environment education and awareness—for a total of 10 guidelines.

We evaluated environmentally conscious products and services using a point rating system from the viewpoint of degree of environmental consciousness in terms of lifecycle. We furthermore classified products into Eco-Products and Super Eco-Products.

We aim to increase sales of environmentally conscious products and services and expand the number of Super Eco-Products we offer, as well as further reducing the environmental impact of our products and services in the future.



Super Eco-Product Candidates



EB Wallpaper



Biomatech PET Refill Pouch



Eco-Fit® UD Passbook Plus

5 Building a Recycling Society

Guidelines for Developing Environmentally Conscious Products and Services with Example Products

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.

Example product ● **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, reduction of GHG emissions

Reduce the use of metals and fossil fuels. Promote energy-conserving products and systems.

Example product ● **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 use of resources

Utilize natural resources in a sustainable way.

Example product

● **Biomatech PET and PE**



These film products are made partially from plant-based materials. Their production and use will help reduce emissions of CO₂, a greenhouse gas, and the use of petroleum, a depleting natural resource.

4 Long-term usability

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

Example product ● **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.

Example product ● **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?

Example product ● **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.

Example product ● **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.

Example product

● **IB (Innovative Barrier) Film**



This is a 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.

Items Newly Added in the Latest Revision

9 Making environmental burden visible and taking into consideration biodiversity

Making visible any burden that should be reduced, and aiming to protect biodiversity.

Example product ● **Beabel Cup Air**



The lightest injection-molded cup in the industry. The Carbon Footprint (CFP) Mark was acquired for the cup as an intermediate product. The lightened weight directly conveys the reduced use of resin.

10 Supporting and promoting environment education and awareness

Helping to create a sustainable society.

Example product ● **Smartphone App "Setsudenkei" (Electric Meter)**



This smartphone app helps you to check the use of electricity in your home to raise awareness of saving electricity.

● Assessment and Development of Products Using LCA

The DNP group has introduced Lifecycle Assessment (LCA) for evaluating the environmental impact of each product over its entire lifecycle with the objective of making improvements; LCA methodology has also been incorporated into new product development.

Recently, we have been conducting evaluation studies on biodiversity and the mitigation of global warming based on detailed data on environmental impact obtained through LCA methods.

● Ecofit® UD Passbook Plus Developed

This new passbook, developed by DNP, is known as the Ecofit® UD Passbook Plus. It is a user-friendly, eco-friendly passbook that complies with Color Universal Design (CUD) and carbon offset programs.

The Ecofit Passbook uses FSC® (Forest Stewardship Council)-certified paper and plant oil-based ink. Being carbon offset compliant, the product helps in the effort to reduce greenhouse gases. To promote such environmental action to consumers, it is possible to display various certification marks on the passbook itself.

In addition to the paper and ink, a non-PVC low-emission magnetic stripe is used to minimize toxic gases should the magnetic stripe be incinerated.

The design also helps to improve visibility and ease of use from a Universal Design standpoint. By being CUD compliant, it is particularly considerate of those who have color vision deficiencies.



● Carbon Footprint

DNP began participating in the Japanese government's "carbon footprint of product" (CFP) pilot project in FY2008. We established product category rules (PCRs) for publications and commercially printed matter as well as containers and packaging, for example, and reviewed verification schemes.

The carbon footprint system got a new start in April 2012 under the auspices of the Japan Environmental Management Association for Industry (JEMAI) as the Carbon Footprint Communication Program.

We began full-fledged implementation in July 2012, and we continue to display the CFP mark primarily on printed matter for advertising and publicity released by DNP.

● New Carbon Footprint Efforts

DNP participates in a pilot project for making products that are compliant with carbon offset programs.

Based on a product's carbon footprint, this project aims to verify the procedures and rules needed for certifying that products are 100% carbon offset by calculating emissions and using offset credits.

We implemented this system with the trading card game "My Earth," a fun game that helps children learn the importance of the global environment. We printed 1,000 sets

of the first lot of two starter packages—"Land and Rivers" and "Oceans and Rivers"—using CFP-certified carbon offsets. These sets were displayed at the DNP booth at the Eco-Products 2012 trade show.

We will continue to develop such environmentally conscious products in the future.



CFP registration no.: CR-AZ03-12003

● Assessment of Water Consumption



The DNP Group has been focusing on assessing the consumption of water resources. Our LCA efforts were recognized in 2012 at the 9th LCA Society of Japan Awards, with an honorable mention for the LCA of Biomatech PET, made using sugar cane. The award recognized DNP's effort in developing Biomatech PET to calculate not only CO₂ but also volume of water consumed.

In the future as well, we will assess environmental impact not only in a single area, but comprehensively, identifying the key aspects of the environment that a product affects.

Note: This project is described in Newsletter No. 62 (in Japanese), downloadable from the LCA Society of Japan site. <http://lca-forum.org/>

Q Color Universal Design

An approach to designing products, facilities, buildings, environments, services, and information in a way that is easy to use even by people with color vision deficiencies.

Q Carbon Offsets

When releasing CO₂ and other greenhouse gases is inevitable in our daily lives or economic activities, we must first try to minimize the output. When emissions are unavoidable, carbon offsets present a way to compensate by investing in action to reduce greenhouse gases using a system of output matching.

Q Carbon Footprint

A carbon footprint represents the total emissions of greenhouse gases of a product or service over its entire lifecycle converted to CO₂ by volume. Product labeling is a method by which a business can visually demonstrate to consumers the measures it is taking to fight global warming, who can then make product or service choices which take CO₂ emissions volume into consideration. LCA methodology is used to calculate the carbon footprint.

We have earned environmental labeling certification such as CoC (Chain of Custody) certification and the Japan Environment Association's Eco Mark. We are working to expand the sale of products with this labeling, so that their packaging and advertising can serve as means to educate consumers properly about the environmental aspects of our goods and services.

● 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.	Acquired for mugs made of recycled plastic Received for "construction use album" using used paper
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.	Acquired by a total of 18 business units

🔍 Environmental Labeling

Environmental Labeling: This is broadly divided into three types: Type 1, such as the 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 EcoLeaf (environmental information labeling), with each having specifications under ISO or JIS.

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

CoC Certification

Certification Type	Acquired by *1	Acquisition Date *2	Registration Organization
FSC-CoC	DNP Chubu	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
	Tien Wah Press (Pte.) Ltd.	May 2008	DNV
	Information Solutions Operations	Aug. 2008	SGS
	Lifestyle Materials Operations	Aug. 2009	SGS
	DNP Nishi Nippon	Jun. 2010	SGS
PEFC-CoC	DNP Shikoku	Dec. 2011	SGS
	Packaging Operations	Jan. 2004	JIA
	DNP Chubu	Sep. 2005	SGS
	DNP Hokkaido	Nov. 2007	SGS
	DNP Trading	Jan. 2008	SGS
	Ichigaya Publication Printing Operations	Mar. 2011	SGS
	Lifestyle Materials Operations	Nov. 2011	SGS

FSC

Forest Stewardship Council

PEFC

Programme for the Endorsement of Forest Certification Schemes

SGS

SGS Japan

DNV

Det Norske Veritas (Norway)

JIA

Japan Gas Appliances Association

*1 Organizations and the names used for them as of March 31, 2013.

*2 Date of initial registration. However, this is the date that Information Solutions Operations (August 2003) switched to multisite certification.

At DNP we understand that we gain many benefits from ecosystems that are supported by creatures of all kinds, and we believe that working to coexist harmoniously and protect the environment is essential for the company to maintain sustainable growth. Based on this way of thinking, we work to protect biodiversity through our business activities.

In every process, including but not limited to product development, material procurement, manufacturing, sales, transport, product use, and disposal of waste, we have examined the relationship to biodiversity. We established two key themes, both of which affect our reliance on ecosystem services and seriously impact biodiversity—the improvement of material procurement practices and the creation of green spaces at our business sites.

● Major activities based on key themes

It is important that our employees are aware of the goals and progress of our biodiversity protection initiatives, and that they work to help achieve those goals.

In material procurement, we work to protect biodiversity and have established the Guidelines for Procurement of Paper for Printing and Converting, based on our CSR Procurement Criteria, that cover selection standards for suppliers and paper.

Employees conduct field surveys that will be used in the creation of green spaces at our business sites so as to protect animals and their ecosystems in the surrounding area.

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.

Dr. Naoki Adachi

CEO, Response Ability, Inc.

Forests are more than just sources of material for paper and lumber; they are home to ecosystems that benefit us in untold ways. It is little wonder that the movement for sustainable use of forests is gaining traction worldwide. Unfortunately, compared to other developed nations, Japan has been slow to adopt the use of paper certified by the Forestry Stewardship Council (FSC) and other organizations.

In contrast, I think DNP's implementation of its Guidelines for Procurement of Paper for Printing and Converting is a highly significant move, and will have a positive effect not only on suppliers but also for a large number of customers. Although these guidelines still need to go deeper in some areas, I have high hopes that DNP will lead the way as it brings its business partners on board at all stages of the supply chain.

Another major international trend is the expansion of greenhouse gas accounting to include calculation of Scope 3 areas, and I think DNP deserves praise for its swift adoption of those methods. I believe that similar philosophies will be applied to water and forest resources in future, and it is pleasing to see that DNP has already begun projects to study and build environments for a diverse range of wildlife in and around its premises. By expanding these activities upstream it should be possible to extend such environmental considerations throughout DNP's entire supply chain. I look forward to seeing such initiatives pick up speed and develop as DNP moves onward.



● Setting new transaction criteria related to the sustainable use of forestry resources

Paper is a raw material essential to the business continuity of the DNP Group. Up to this point we have actively proposed to our customers that they use thinned wood products or FSC-certified paper to contribute to the sustainable management of forest resources.

In FY2012, we established the Guidelines for Procurement of Paper for Printing and Converting which stipulate criteria related to transactions with companies from which we procure paper. In November we conducted a seminar to explain these guidelines to our paper suppliers, and we are carrying out procurement following these guidelines both domestically and internationally.

Together with our CSR Procurement Criteria and green purchasing policy, our implementation of responsible paper procurement by working with suppliers helps to protect biodiversity.

● Biomatech PET —made from sugar cane-derived material

Biomatech PET is a form of packaging made from plant-based material.

The LCA methods that DNP employs are recognized for their sustainability and positive effect on protecting biodiversity. We are making proposals that promote the active use of such environmental data, and in FY2012, four companies adopted these methods, including Sumitomo Chemical Garden Products and Kikkoman Corporation.

DNP Group Guidelines for Procurement of Paper for Printing and Converting

3. Guidelines for Supplier Selection

The DNP Group will give precedence to companies that fulfill the following criteria when selecting suppliers from which to procure paper.

- Companies that have a defined policy regarding procurement of wood raw materials
- Companies that have established and are implementing a management system for verifying the legal compliance of wood raw materials
- Companies that are able to provide information regarding their pulp suppliers (information for verifying criteria under Guidelines for Paper Selection)

4. Guidelines for Paper Selection

Product selection in the procurement of paper will be based on the following guidelines.

- 1) Give priority to forest-certified paper
- 2) Strive to select paper made from a higher ratio of wood raw materials obtained in a way that fosters sustainability of forest resources
 - Paper made of wood harvested according to sustainable forest management methods
 - Paper with a higher deinked pulp content
 - Paper made from scraps from sawn logs, low-grade wood, and/or forest thinning wood
 - Paper that contains non-wood pulp
- 3) Do not use paper made from wood raw materials that cannot be verified as legally compliant. (We verify that paper does not contain illegally harvested wood.)

(Excerpted)

Biomatech PET products now include Biomatech A-PET for sheet forming, Biomatech IB-PET with barrier properties, and Biomatech VM-PET, for application in a broader range of fields. We aim to promote more widespread use of the Biomatech series into the future.

🔍 The Biomass Mark

This mark certifies that a product uses biomass material and fulfills specified requirements related to quality, standards, etc. The Japan Organics Recycling Association serves as the certifying body.

The PET film itself has been certified to use the Biomass Mark, so packaging materials that use Biomatech PET film are able to display this mark.



Biomass Mark



Sumitomo Chemical Garden Products' "My Roses" brand rose fertilizer

For Greater Life Diversity: Creation of Green Spaces at Business Sites

● Creating Green Spaces to Broaden the Diversity of Life in the Local Area

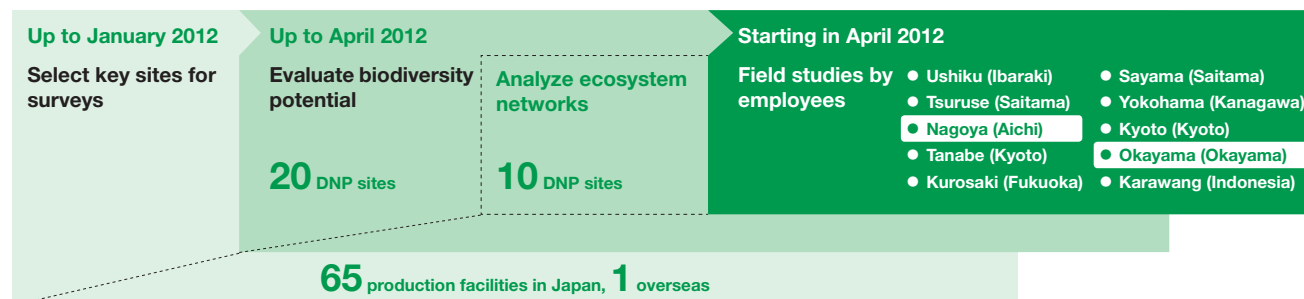
The land use and site management of plants and offices affect a region's ecosystem, but they can also contribute to improving the quality and sustainable use of ecosystem services.

In order to create green spaces at business sites that promote biodiversity, the DNP Group has followed the JBIB Guidelines for Sustainable Business Sites developed by the Japan Business Initiative for Biodiversity. As an example, employees participated in initiatives to survey vegetation and wildlife in and around their facilities in late August and September 2012.

Based on the results and on expert advice, we have created different types of green spaces. At the Okayama Plant, a lack in the surrounding area spelt the need for a grassland type of green space; at DNP Chubu, trees and plants were planted to protect butterfly habitats. Employees have gone as far as drawing up wildlife maps and compiling field guides. Moving forward, regular wildlife surveys will help the teams track changes in the local ecosystem.

Surveys will also be conducted at other business sites to improve their green spaces, to select suitable plants and trees, and to update maintenance practices. They will be used in creating green spaces that promote biodiversity at our business sites.

Creating green spaces at DNP business sites



● Okayama Plant: Surveying vegetation and maintenance of grassland



● DNP Chubu: Wildlife surveying and the wildlife map produced



For Greater Life Diversity: Creation of Green
Spaces at Business Sites

● Recreating the Musashino Woods through the Ichigaya Forest Plan

The DNP Head Office is located in Ichigaya, Tokyo, which was once covered by the great Musashino Woods. We are currently pursuing an ambitious plan—the Ichigaya Forest Plan—to recreate the Musashino Woods by 2017. The Ichigaya precinct has lush green areas in the Imperial Palace and the former outer moats of Edo Castle, which are home to a cornucopia of birds, butterflies, and other wildlife. The DNP Ichigaya Forest Plan seeks to link up with those existing oases to create a rich ecosystem so that the resident wildlife can come and go as they please.



● Wildlife survey in the surrounding area

Surveying the area



Azure-winged magpie



Common bluebottle



Ma dou ling Dutchman's pipe (a vine eaten by the Chinese windmill butterfly)



Hawfinch



Pygmy grasshopper



We began in 2012 with a survey of wildlife stocks in each season, both within the proposed Ichigaya Forest area and in the main green spaces within a 1 km radius. We discovered that DNP premises are home to 132 species of plants in 57 families, 17 species of birds in 14 families, and 97 species of insects.

The plants at the site were primarily planted species, but the rare ma dou ling Dutchman's pipe, a vine eaten by the Chinese windmill butterfly, was also found (red-listed in the Tokyo metropolitan area). Most of the birds found on site were common in urban areas, but the forest-dwelling hawfinch was also discovered. Most of the insects were also common in urban areas, but many butterflies were found, including the common bluebottle, a swallowtail butterfly that is capable of moving significant distances. The pygmy grasshopper, in contrast, is a small grasshopper that cannot move great distances, so it is possible that it inhabited the area prior to the site's development.

The results of the survey are to be reflected in the plan and similar surveys are to be carried out regularly in order to ascertain how an Ichigaya Forest may contribute to the surrounding ecosystem.

The DNP Group positions and implements environmental accounting as follows.

1. As an environmental management tool for the DNP Group

- (1) To evaluate and confirm the effectiveness of environmental conservation activities
- (2) To determine the cost of and investment in individual conservation measures and the Group's overall environmental activities
- (3) To monitor and evaluate the effects and achievements of activities performed throughout the year to ensure continuous improvement in our environmental performance

2. As a tool for communicating with society

- (1) To publicly announce the cost-benefit relationship of environmental conservation efforts
- (2) To reflect the opinions of shareholders, business partners, local residents, and others in environmental conservation activities

Environmental Accounting Calculation Bases

- (1) **Period covered:** April 1, 2012 through March 31, 2013 (Environmental facilities are those considered as of March 31, 2013)
- (2) **Scope of coverage:** At DNP and among its domestic group companies subject to consolidated financial accounting, 32 domestic manufacturers and one distribution company (p. 45, 46), plus non-manufacturing sites (two development centers, office buildings, sales offices, etc.). However, newly built plants are included in the capital investment.
- (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 calculation of environmental conservation costs**
 - 1) Environmental conservation costs include depreciation expenses for investments. The methods for calculating depreciation expenses were revised in FY2011, accompanying changes in the environmental accounting aggregation system.
 - 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 four R&D centers and development departments within each operations field in the development of environmentally conscious products and manufacturing equipment. The methods of calculation for FY2011 were revised, accompanying improvements in calculation accuracy.
- (6) **Basis for calculation of environmental conservation benefits**
 - 1) DNP uses energy consumption per unit of sales as an efficiency indicator for the volume of resources (energy and water) spent on business activities, as well as for the volume of waste materials and CO₂ emissions.
 - 2) Benefits apply to all volatile organic compounds (VOCs), including chemical substances subject to the PRTR Law among the atmospheric environmental pollutant emissions volume corresponding to business area costs.
 - 3) Up to FY2011, the benefit related to goods produced by business activities corresponded to the reduction of CO₂ emissions when disposing of or recycling containers or packaging products and dye-sublimation transfer materials. However, starting FY2012, it was changed to the reduction of the volume of greenhouse gases emitted from all products shipped. Specifically, of the GHG emissions calculated according to the Scope 3 standards listed on p. 22, the categories used were: Category 4 (Upstream transportation & distribution), Category 9 (Downstream transportation & distribution), Category 10 (Processing of sold products), Category 11 (Use of sold products), and Category 12 (End of life treatment of sold products). Consequently, the methods of calculation for FY2011 were revised.
 - 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) **Basis for calculation of 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 amount of reduction is calculated as follows: (Benchmark period unit consumption – unit consumption for current period) × amount of business activity for current period.
 - 2) Amount of business activity is based on domestic consolidated sales.
 - 3) Unit consumption is calculated as: waste disposal cost / domestic consolidated sales.
 - 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
	FY2011	FY2012	FY2011	FY2012		
(1) Business area costs						
1) Pollution prevention costs	1,136	1,159	2,513	2,661	Expansion of VOC collection and disposal equipment, expansion of wastewater treatment facility	17, 23
2) Global environmental conservation costs	318	316	410	364	Cogeneration, waste heat boilers, inverter conversion	17, 19
3) Resource circulation costs	161	71	1,975	1,627	Furnace improvements, separation recycling, zero emissions (conversion to RPF/cement ingredients), resource recycling	17, 26-27
(Total business area costs)	1,615	1,546	4,898	4,652		
(2) Up/downstream costs	0	0	139	141	Container and packaging recycling expense burden, recycling system development	29-32
(3) Administration costs	0	8	2,130	2,338	ISO14001 inspection and registration costs, environmental education costs, environmental report composition costs	8-14, 33, 47
(4) R&D costs	0	0	3,180	2,674	Research and development into environmentally conscious products and production methods	19, 29-32, 35
(5) Social activities costs	0	0	19	19	Environmental conservation of areas outside plant compounds, biodiversity conservation, support for activities of environmental conservation groups	34-37
(6) Environmental remediation	0	0	262	14	Soil improvement	9-12
Total	1,615	1,554	10,627	9,838		

● 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
Investment of current period	88,300	1,554	1.76%	Expansion of VOC collection and disposal equipment, expansion of wastewater treatment facility, inverter conversion, etc.	18
R&D cost of current period	30,820	2,674	8.68%	Photovoltaic and fuel cell parts, product weight reduction, process loss reduction, energy use monitoring system, etc.	19, 26-27, 29-32

FY2012 Assessments

- (1) Investment in environmental facilities continued from the previous year with the introduction of environmental protection equipment at new plants being built and where production facilities were being expanded, as well as the expansion of our VOC processing facilities.
- (2) Business area costs decreased from the previous year. This was primarily due to a reduction in processing costs through the conversion of undesired materials into valuable resources. Environmental damage costs were comprised of costs for soil improvement accompanying the purchase and sale of land.

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

Category	Indicator showing benefit	FY2011	FY2012	Difference	Remarks	Page(s) on which data is listed
1) Benefit arising from supplied resources						
Total energy input volume	Energy consumption (TJ)	22,400	21,275	-1,125	All consumed energy was converted into average value in calories	17, 19-20
	Unit consumption per domestic sales for the above (TJ/100 million yen)	1.70	1.70	-0.00	Energy consumed per 100 million yen of domestic sales	17, 19-20
Input volume of water	Water usage (1,000m ³)	15,900	15,300	-600	Water supply, industrial water, and well water	17, 28
	Unit consumption per domestic sales for the above (1,000m ³ /100 million yen)	1.21	1.22	0.01	Water usage increased by 10m ³ per 100 million yen of domestic sales	17, 28
Input volume of main raw materials	Supplied amount (1,000 tons)	2,257	2,166	-91	Total weight of paper, plastic, ink, and metals	17, 26
	Amount of undesired materials generated/supplied (%)	15.9	15.1	-0.8	Ratio of unwanted materials to main raw materials	17, 26
2) Environmental conservation benefit related to waste or environmental impact originating from business activities						
Emissions to the air	SOx emissions (tons)	10	10	0	Calculated based on emissions volume per unit time and time of operation	17, 23
	NOx emissions (tons)	740	706	-34	Calculated from supplied energy	17, 23
	Environmental pollutant emissions volume (tons)	5,506	5,173	-333	VOC emissions volume	17, 23
Water quality	COD discharge (tons)	40.4	39.0	-1.4	Calculated from the amount of discharged water and average concentration	17, 24
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	0.0	0.0	0.0	There have been no emissions into public waters since FY2010	25
Waste emission volume	Generated undesired materials (1,000 tons)	358	327	-31	Including undesired materials other than main raw materials	17, 26-27
	Discharged waste (1,000 tons)	59.3	50.9	-8.4	Total waste subcontracted to waste disposal companies	17, 26-27
	Unit consumption per domestic sales for the above (tons/10 million yen)	0.451	0.407	-0.044	Reduction of 44kg per 10 million yen of domestic sales	17, 26-27
	Recycle rate (%)	99.2	99.3	0.1	By category: paper (100%), waste plastics (97.3%), and metals (98.8%)	17, 26-27
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	835	817	-18	Total for 29 substances reported	25
Volume of greenhouse gas emission	Emissions of greenhouse gasses (1,000t-CO ₂)	1,028	999	-29	Total greenhouse gases including emissions by incinerators and drying furnaces	17, 19-20
	Unit consumption per domestic sales for the above (tons/100 million yen)	78	80	2	Increase of 2 tons of emissions per 100 million yen of domestic sales	17, 19-20

(2) Environmental conservation benefit related to goods and services produced by business activities

Category	Indicator showing benefit	FY2011	FY2012	Difference	Remarks	Page(s) on which data is listed
1) Benefit related to goods produced by business activities						
CO₂ emissions after product shipment	CO ₂ emissions (1,000t-CO ₂)	1,429	1,379	-50	Total for Scope 3 categories 4, 9, 10, 11, and 12	22, 30-32
	CO ₂ emissions / domestic sales	0.109	0.110	0.001	Slight increase in emissions per 100 million yen domestic sales	22, 30-32

(3) Other environmental conservation benefit

Category	Indicator showing benefit	FY2011	FY2012	Difference	Remarks	Page(s) on which data is listed
1) Benefit related to the environmental impact of transportation						
	Energy usage amount during shipment of goods (kl)	24,650	22,900	-1,750	Energy usage (converted to fuel oil) during transport as freight	21
	Energy usage amount during transport / gross sales (kl/100 million yen)	1.64	1.59	-0.05	50 liter decrease per 100 million yen of sales	21

FY2012 Assessments

- (1) Energy consumption and water use decreased as during the previous year due to energy saving measures and decreased production in the Electronics Division. Unit consumption worsened, however, due to stagnant sales resulting from a drop in the unit price of orders.
- (2) In FY2012, a ¥0.81 billion investment in VOC collection and disposal equipment (¥4.59 billion over the past five years) resulted in reduced atmospheric emissions. Waste per unit of production improved over the previous year as a result of converting undesired materials to valuable resources.
- (3) Regarding the effect of goods produced through business activities, from FY2012 we began calculating greenhouse gas emissions after shipment according to Scope 3 standards. As a result, emissions dropped from the previous year but unit consumption remained at the same level.
- (4) In the area of distribution, while sales were stagnant, the amount of energy used during transport was reduced, primarily through the optimization of vehicle assignments and transport routes, thereby improving the unit consumption of fuel in distribution.

Table (3) Economic Benefits of Environmental Conservation Activities

Category	FY2011	FY2012	Difference	Remarks	Page(s) on which data is listed
(1) Increased sales 1) Economic benefit of R&D costs					
Sales of environmentally conscious products	336,000	355,700	19,700	Sales increased 5.9% over FY2010	29-32
(2) Increased income 2) Benefit of resource recycling costs					
Income from recycling undesired materials	2,892	2,754	-138	Decrease due to falling sales prices	26-27
(3) Cost saving 3) Benefit of resource recycling costs					
Saving disposal costs by resource conservation	132	100	-32	Increased costs with worsened unit price due to stagnant sales	26-27

FY2012 Assessments

- (1) Sales of environmentally conscious products are up, with increased sales of packaging, film laminate flooring, and other products; sales are on target for reaching 400 billion yen in FY2015.
- (2) Income from the recycling of undesired materials through the conversion of waste to valuable material decreased year-on-year due to falling sales prices.
- (3) The economic benefit calculated according to item (7) of the "Environmental Accounting Calculation Bases" on page 38 shows that even though efforts were made to reduce emissions, unit consumption worsened, and the benefit was lower than in the previous year.

Ongoing Efforts

- (1) Make further improvements in eco-efficiency through Production 21 Activities.
- (2) Proceed with newly installing VOC collection and disposal equipment to reduce emissions of VOCs into the atmosphere.
- (3) Proceed with energy use monitoring and systematically upgrade to the latest energy-saving equipment to cut down on emissions of greenhouse gases.

Environmental Impact Status at Overseas Sites

We implemented the Eco-Report System (see p. 9) 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 for energy conservation, waste reduction, and recycling. We also promote activities in fields such as energy conservation, reduced use of copier paper, and recycling at our overseas offices.

Eco-Audits were performed in FY2012 at the following four manufacturing sites.

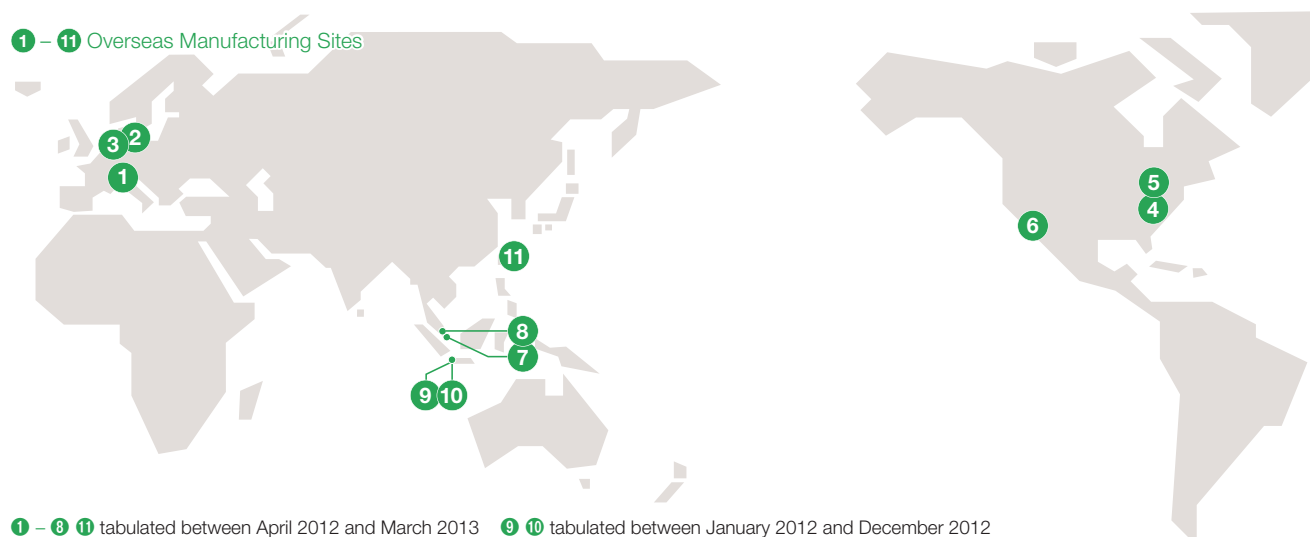
PT DNP Indonesia (Pulo Gadung)
PT DNP Indonesia (Karawang)
Tien Wah Press (Pte.) Ltd. (Singapore)
Tien Wah Press (Pte.) Ltd. (Johor Bahru)

● Environmental Targets Set for Overseas Sites

Starting in FY2013, environmental targets are being set for overseas sites aimed at reducing environmental impact, in particular for reducing waste and emissions of greenhouse gases and VOCs in the air. We are working especially to reduce greenhouse gases through a global effort using reduction targets that combine overseas and domestic emission totals.

Overseas Targets

Reduction of greenhouse gases	A 10% reduction in GHG emissions by FY2020 compared to FY2005, in total for domestic and overseas operations
Reduction of industrial waste	A 15% reduction by FY2015 compared to FY2010 in per unit waste emissions
Reduction of air emissions of VOCs	Reduction of air emissions of VOCs as far as possible by introducing technologies and methods in accordance with local laws and regulations



Site	Work content	CO ₂ emissions (Unit: CO ₂ tons)	Final amount of waste disposal (Unit: tons)	VOC emissions (Unit: tons)	Water use (Unit: m ³)
① DNP Photomask Europe S.p.A. (Agrate Brianza)	Manufacturing of photomasks	7,090	1	less than 1 ton	48,431
② DNP Denmark A/S (Karlslunde)	Manufacturing of projection television screens	740	0	less than 1 ton	1,922
③ DNP IMS Netherlands B.V. (Amsterdam)	Manufacturing of information media supplies	430	0	less than 1 ton	651
④ DNP IMS America Corporation (Concord)	Manufacturing of information media supplies	8,640	518	11	1,536
⑤ DNP IMS America Corporation (Pittsburgh)	Manufacturing of information media supplies	12,910	622	3	4,434
⑥ DNP Electronics America, LLC (Chula Vista)	Manufacturing of projection television screens	570	6	less than 1 ton	817
⑦ Tien Wah Press (Pte.) Ltd. (Singapore)	Offset printing and binding	7,830	30	48	47,332
⑧ Tien Wah Press (Pte.) Ltd. (Johor Bahru)	Offset printing and binding	6,220	16	25	129,784
⑨ DNP Indonesia (Pulo Gadung)	Gravure printing and offset printing	19,030	874	4,350	93,954
⑩ DNP Indonesia (Karawang)	Gravure printing and offset printing	31,320	517	8,005	146,583
⑪ DNP Photomask Technology Taiwan (Hsinchu)	Manufacturing of photomasks	3,770	15	less than 1 ton	70,331

Note: CO₂ emissions volume is calculated using coefficients from the GHG Protocol and the US Department of Energy.

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 Division
FY1992	Establishes the DNP Group Corporate Pledge and Code of Conduct for DNP Group Employees Establishes the Eco-Plan Promotion Targets, the elaborated voluntary plan based on the Environmental Declaration of the Code of Conduct, and starts activities by 4 sub-committees
FY1993	Starts the Eco-Report System, which is part of the DNP Group's environmental management system
FY1994	Remodels and expands the Environment Department into the Environment & Product Liability Department to strengthen our efforts toward 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 "4th Grand Prize for the Global Environment Award," which commends companies and groups that contribute to the conservation of the global environment (The award was 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 Eco-Audits, 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 Publishes the DNP Group Environmental Activity Report
FY2000	The Eco-Plan Promotion Office is dismantled and replaced with the DNP Environmental Committee to strengthen the system for promoting environmental activities DNP Facility Services becomes the first in the world to be certified for its 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 acquire ISO14001 certification
FY2002	DNP Tokai acquires FSC-CoC certification Acquisition of ISO14001 certification by: Kobe Plant, Decorative Interiors Operations; The Intec (Tokyo, Kansai, and Utsunomiya Plants); Ushiku Plant, BF Operations; DNP Technopack Tokai; Singapore Plant, Tien Wah Press; Chikugo Plant, DNP Nishi Nippon; Kyoto Plant, Electronics Devices Operations; Sayama Plant, Information Media Supplies Operations; Ono Plant, DNP Media Create Kansai
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, and DNP Trading acquire FSC-CoC certification, 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	DNP wins the Minister for the Environment's Prize in the "14th Grand Prize for the Global Environment Award" The "7th Environmental Report Prize" awarded for excellence Fukuoka Plant, DNP Nishi Nippon; DNP Logistics; DNP Ellio (Tokyo and Osaka Plants); and Warabi Plant, BF Operations acquire ISO14001 certification Eco-Report System implemented at overseas sites

FY2005	"8th Environmental Report Prize / Sustainability Report Prize" awarded for excellence DNP Data Techno Kansai; Johor Bahru Plant, Tien Wah Press; Otone Plant, Display Products Operations; and DNP Techno Polymer (Kashiwa and Kansai Plants) acquire ISO14001 certification Ichigaya Publication Printing Operations; DNP Tohoku; and Yokohama Plant, Packaging Operations acquire FSC-CoC certification, DNP Tokai acquires PEFC-CoC certification
FY2006	DNP Photomask Europe; Akabane Office, DNP Logistics; DNP Techno Film (Kashiwa Plant and Izumizaki Plant); and DNP IMS Odawara acquire ISO14001 certification
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, DNP Hokkaido and DNP Trading acquire PEFC-CoC certification
FY2008	Izumizaki Plant, DNP Technopack; Kasaoka Plant, DNP Fine Chemicals; Okayama Plant, Opto-Materials Operations acquire ISO14001 certification IPS Operations and DNP Media Create Kansai acquire PEFC-CoC certification
FY2009	Mihara Plant, Opto-Materials Operations; DNP Indonesia (Pulo Gadung / 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 ISO14001 certification Revision of DNP Group Environmental Targets The DNP Emergent Evolution Forest Hakone Training Center 2 acquires Green Key certification
FY2011	DNP's independently developed Energy-Saving Total Management System is implemented at 36 Tokyo Electric Power locations New, leading-edge environmentally conscious plant for manufacturing flexible packaging is built in Kyotanabe DNP Chubu becomes Ecostage-certified (Stage 1) Sayama Plant, DNP Technopack Yokohama acquires ISO14001 certification DNP Shikoku acquires FSC-CoC certification and Lifestyle Materials Operations acquires PEFC-CoC certification Reductions in power consumption in the processes of manufacturing photomasks earns DNP the Energy Conservation Grand Prize for excellent energy conservation equipment, Jury's Special Prize awarded by the Energy Conservation Center, Japan (ECCJ)
FY2012	Guidelines for Procurement of Paper for Printing and Converting are established to protect biodiversity in our business operations, and projects to create green spaces are launched at Okayama Plant and DNP Chubu business sites Volume of greenhouse gas emissions are announced according to Scope 3 standards

Note: Organizations and the names used for them as of that time.

Domestic manufacturing sites with required business performance data disclosure (1)

Organizations and the names used for them are current as of March 31, 2013.

Applies to DNP and non-manufacturing sites of all domestic companies in the group that are subject to consolidated financial accounting.

Business segments

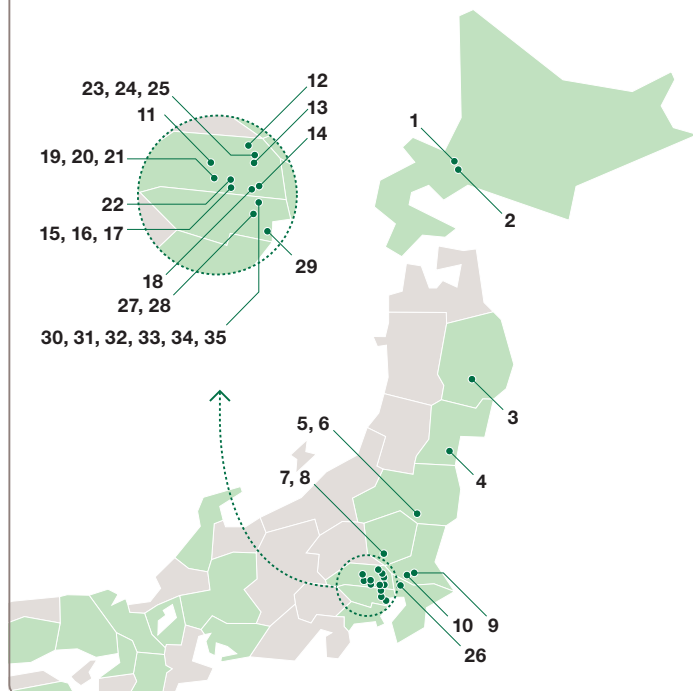
●	Information Communication	"Other" refers to products that do not fall under the three segments or group companies manufacturing products that span multiple segments.
▲	Lifestyle and Industrial Supplies	
■	Electronics	
□	Other	

*1 In April 2012 DNP Opto-Materials changed its name to DNP Advanced Optics.

*2 In October 2012 DNP Fine Electronics absorbed DNP Precision Devices.

*3 In October 2012 DNP Technopack absorbed DNP Technopack Yokohama, DNP Technopack Kansai, DNP Technopack Tokai, DNP Techno Polymer, as well as DNP Hokkaido, DNP Tohoku, DNP Chubu, and the Packaging Division of DNP Nishi Nippon.

*4 In October 2012 Information Communications Operations, IPS Operations, and CBS Operations were merged and the name was changed to Information Solutions Operations.



Location		Business segment	No.	Site	Work content
Hokkaido	Higashi-ku, Sapporo	□	1	DNP Hokkaido / Sapporo Plant, DNP Technopack*3	Plate-making / printing / bookbinding / manufacturing of packaging
	Kiyota-ku, Sapporo	□	2	Sapporo Plant, Hokkaido Coca-Cola Products	Beverage manufacturing
Iwate	Kitakami	■	3	Kitakami Plant, DT Fine Electronics	Manufacturing of electronic precision parts
Miyagi	Miyagino-ku, Sendai	□	4	DNP Tohoku / Sendai Plant, DNP Technopack*3	Plate-making / printing / bookbinding / manufacturing of packaging
Fukushima	Izumizaki, Nishi Shirakawa	▲	5	Izumizaki Plant, DNP Technopack	Plate-making / printing plate / printing
		▲	6	Izumizaki Plant, DNP Energy Systems	Manufacturing of solar cell filler
Tochigi	Nishikata, Kamitsuga	●	7	DNP Graphica	Printing / bookbinding
		▲	8	Utsunomiya Plant, DNP Technopack*3	Plastic container molding
Ibaraki	Ushiku	●	9	DNP Data Techno	Manufacturing of various types of smart cards
	Tsukuba	□	10	Tsukuba Techno Center, D.N.K.	Manufacturing of printing machines and machine tools
Saitama	Higashimatsuyama	●	11	Higashimatsuyama Plant, Oguchi Book Binding & Printing	Bookbinding
	Kazo	■	12	Otone Plant, DNP Fine Electronics*2	Manufacturing of electronic parts for displays
	Shiraoka, Minami Saitama	●	13	Shiraoka Plant, DNP Book Factory	Printing / bookbinding
	Kawaguchi	●	14	Kawaguchi Plant, DNP Book Factory	Printing
	Miyoshi, Iruma	●	15	Tsuruse Plant, Ichigaya Publication Printing Operations	Plate-making / printing plate / printing / bookbinding
		▲	16	Tokyo Plant, DNP Lifestyle Materials	Plate-making / printing plate / printing / processing
		●	17	Miyoshi Plant, Oguchi Book Binding & Printing	Bookbinding
	Warabi	●	18	Warabi Plant, Information Solutions Operations*4	Plate-making / printing / processing
	Sayama	▲	19	Sayama Plant No.1, DNP Technopack	Plate-making / printing plate / printing
		▲	20	Sayama Plant No.2, DNP Technopack*3	Plate-making / printing plate / printing
		▲	21	Sayama Plant, DNP IMS	Manufacturing of thermal transfer carbon ribbons and dye-sublimation transfer materials
	Fujimino	■	22	Kamifukuoka Plant, DNP Fine Electronics	Manufacturing of electronic precision parts
	Kuki	●	23	Kuki Plant, Ichigaya Publication Printing Operations	Printing plate / printing / bookbinding
		■	24	Kuki Plant, DNP Fine Electronics	Manufacturing of electronic precision parts
		▲	25	Saitama Plant, DNP Advanced Optics*1	Manufacturing of electronic parts
Chiba	Kashiwa	▲	26	Kashiwa Plant, DNP Technopack*3	Molding, processing, and printing plastic containers
Tokyo	Shinjuku-ku	●	27	Ichigaya Plant, Ichigaya Publication Printing Operations	Plate-making / printing plate / printing / bookbinding
		●	28	Enoki-cho Plant, Information Solutions Operations*4	Plate-making / printing / bookbinding
	Shinagawa-ku	□	29	Honmachi Plant, DNP SP Tech	Manufacturing of all types of advertising items
	Kita-ku	●	30	Akabane Plant, DNP Book Factory	Printing
		●	31	Akabane Plant, Information Solutions Operations*4	Plate-making / printing / bookbinding
		●	32	Kamiya Plant, DNP Book Factory	Bookbinding
		□	33	DNP Logistics	Packaging / shipping
		□	34	DNP Hoso	Processing filling and packaging
●		35	Kamiya Plant, Information Solutions Operations*4	Printing / bookbinding / processing	

Domestic manufacturing sites with required business performance data disclosure (2)

Organizations and the names used for them are current as of March 31, 2013.

Applies to DNP and non-manufacturing sites of all domestic companies in the group that are subject to consolidated financial accounting.

Business segments

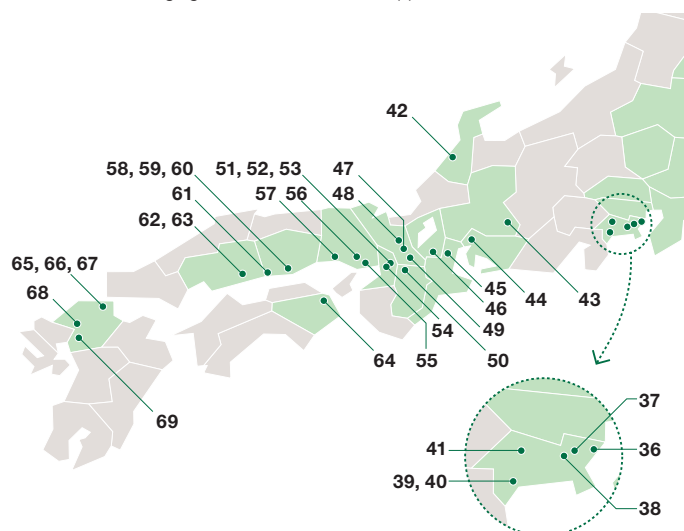
●	Information Communication	"Other" refers to products that do not fall under the three segments or group companies manufacturing products that span multiple segments.
▲	Lifestyle and Industrial Supplies	
■	Electronics	
□	Other	

*1 In February 2012 DNP Media Support took over its current business operations and is included in calculations from FY2012.

*2 In April 2012 DNP Opto-Materials changed its name to DNP Advanced Optics.

*3 In October 2012 DNP Fine Electronics absorbed DNP Precision Devices.

*4 In October 2012 DNP Technopack absorbed DNP Technopack Yokohama, DNP Technopack Kansai, DNP Technopack Tokai, DNP Techno Polymer, as well as DNP Hokkaido, DNP Tohoku, DNP Chubu, and the Packaging Division of DNP Nishi Nippon.



Location	Business segment	No.	Site	Work content
Kanagawa	■	36	Kawasaki Plant, DT Fine Electronics	Manufacturing of electronic precision parts
	▲	37	Yokohama Plant, DNP Technopack*4	Plate-making / printing plate / printing
	□	38	Tokyo Plant, DNP Fine Chemicals	Manufacturing of ink, varnish, chemicals, etc.
	▲	39	Sagami Yoki	Manufacturing of laminated tubes
	▲	40	Odawara Plant, DNP IMS	Photographic materials manufacturing
	▲	41	Tokyo Plant, DNP Elio	Printing and processing metal sheets
Ishikawa	□	42	Hokuriku Techno Center, D.N.K.	Manufacturing of printing machines and machine tools
Gifu	▲	43	Tokai Plant, DNP Technopack*4	Manufacturing / printing / processing packaging
Aichi	□	44	DNP Chubu / Nagoya Plant, DNP Technopack*4	Plate-making / printing / bookbinding / manufacturing of packaging
Mie	■	45	DNP Color Techno Kameyama	Manufacturing of electronic precision parts
Shiga	▲	46	Shiga Plant, DNP IMS	Thermal transfer recording materials production
Kyoto	▲	47	Kyoto Plant, DNP Energy Systems	Manufacturing of solar cell filler
	▲	48	Kyoto Plant, DNP Technopack*4	Plate-making / printing plate / printing
	▲	49	Tanabe Plant, DNP Technopack*4	Printing plate / printing / molding and processing plastic containers
Nara	●	50	DNP Data Techno Kansai	Manufacturing of various types of smart cards
Osaka	▲	51	Neyagawa Plant, DNP Technopack*4	Molding, processing and printing plastic containers
	▲	52	Osaka Plant, DNP Elio	Printing and processing metal sheets
	□	53	Neyagawa Plant, DNP SP Tech	Manufacturing of all types of advertising items
	●	54	DNP Media Support *1	Manufacturing of magnetic cards
Hyogo	▲	55	Kobe Plant, DNP Lifestyle Materials	Printing and processing
	●	56	Ono Plant, DNP Media Techno Kansai	Printing plate / printing / bookbinding
	■	57	DNP Precision Devices Himeji	Manufacturing of electronic precision parts
Okayama	▲	58	Okayama Plant, DNP IMS	Manufacturing of dye-sublimation transfer materials
	▲	59	Okayama Plant, DNP Lifestyle Materials	Plate-making / printing plate / printing / processing
	▲	60	Okayama Plant, DNP Advanced Optics	Manufacturing of electronic parts
	□	61	Kasaoka Plant, DNP Fine Chemicals	Manufacturing of ink, varnish, chemicals, etc.
Hiroshima	■	62	Mihara Plant, DNP Fine Electronics	Manufacturing of electronic precision parts
	▲	63	Mihara Plant, DNP Advanced Optics	Manufacturing of electronic parts
Tokushima	□	64	DNP Shikoku	Plate-making / printing / manufacturing of packaging
Fukuoka	■	65	Kurosaki Plant No.1, DNP Fine Electronics*3	Manufacturing of electronic precision parts
	■	66	Kurosaki Plant No.2, DNP Fine Electronics*3	Manufacturing of electronic precision parts
	▲	67	Tobata Plant, DNP Energy Systems	Manufacturing of solar cell filler
	□	68	Fukuoka Plant, DNP Nishi Nippon	Plate-making / printing / bookbinding
	□	69	Chikugo Plant, DNP Technopack*4	Plate-making / printing / manufacturing of packaging

- DNP Media Art calculated under the Ichigaya Plant, Ichigaya Publication Printing Operations.
- DNP Media Create calculated under the Enoki-cho Plant, Information Solutions Operations.
- DNP Total Process Warabi calculated under the Warabi Plant, Information Solutions Operations.
- DNP Micro Technica calculated under the Kamifukuoka Plant, DNP Fine Electronics.

- The plant belonging to DNP Fine Chemicals Fukushima became situated in the restricted zone following the accident at the Fukushima Daiichi Nuclear Power Plant, and was forced to stop operations, but a new plant was built in Utsunomiya and the name was changed to DNP Fine Chemicals Utsunomiya in February 2013. Operations were then restarted in March.
- Operations were stopped at DNP Color Techno Sakai in August 2012.

Independent Review Report Comments by an Independent Institution

On-site audit



Tanabe Plant, DNP Technopack



Kurosaki Plant No.1, DNP Fine Electronics



Kobe Plant, DNP Lifestyle Materials



Kuki Plant, Ichigaya Publication Printing Operations



Translation

The following is an English translation of an independent assurance statement 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

Date: 31 July, 2013

To
Mr. Yoshitoshi Kitajima
President
Dai Nippon Printing Co., Ltd.

Kenji Sawami
Representative Director
Ernst & Young Sustainability Co., Ltd.

1. Scope and Purpose of Assurance Engagement

We, Ernst & Young Sustainability Co., Ltd., have been commissioned by Dai Nippon Printing Co., Ltd. (hereafter the "Company") to provide limited assurance on the Company's DNP Group Environmental Report 2013 posted on the Company's Web site (hereafter the "Report").

The purpose of our assurance engagement is to perform the limited assurance work to determine whether the environmental accounting data and the Key Environmental Performance Indicators^{*1} (hereafter the "Indicators") of the Company and its major subsidiaries for the year ended March 31, 2013 included in the Report were measured, calculated and reported in accordance with the Company's Reporting Standards^{*2} and the Company's policies and standards, and were contained in all material respects and to express a conclusion based on the work performed.

The Company is responsible for the preparation of the Report. Our responsibility is limited to independently express a conclusion on the Indicators.

^{*1} "Indicators" means the information defined in the Environmental Reporting Assurance and Registration Criteria (Revised in February 2013 by The Japanese Association of Assurance Organizations for Sustainability Information).

^{*2} The Reporting Standards refer to the Environmental Reporting Guidelines 2012 (Published in April 2012 by Ministry of the Environment), Environmental Accounting Guidelines 2005 (Published by Ministry of the Environment), and the important information subject to disclosure are identified in accordance with the Environmental Reporting Assurance and Registration Criteria.

2. Summary of Assurance Procedures Performed

We performed limited assurance procedures in accordance with the International Standard on Assurance Engagements - Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000), revised in December 2003 by the International Federation of Accountants and the Practical Guidelines for the Assurance of Sustainability Information, revised in December 2012 by the Japanese Association of Assurance Organizations for Sustainability Information. In a limited assurance engagement, assurance procedures are more limited than those of a reasonable assurance engagement conducted in accordance with ISAE3000. Therefore, the level of assurance provided is not as that provided by a reasonable assurance.

The summary of the procedures we performed for our assurance engagement is as follows:

- Reading relevant documents with regard to the Company's Reporting Standards and the Company's policies and standards and inquiring of personnel responsible thereof;
- Reading relevant documents with regard to the design of the Company's internal control of the Indicators and inquiring of personnel responsible thereof at the headquarters and the sites visited;
- Performing analytical procedures of the Indicators at the headquarters and the sites visited; and
- Agreeing to supporting documents and recalculating with part of the Indicators at the headquarters and the sites visited on a test basis.

3. Conclusion

Based on the assurance procedures performed, nothing has come to our attention that caused us to believe that the Indicators for the year ended March 31, 2013 were not measured, calculated and reported in accordance with the Company's Reporting Standards and the Company's policies and standards and were not contained in all material respect.

4. Independence

We have no conflict of interest relationships with Company that are specified in the Code of Ethics of the Japanese Association of Assurance Organizations for Sustainability Information.

Dai Nippon Printing Co., Ltd.

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