

DNP



DNP Group Environmental Report 2022

DNP Group Environmental Report 2022

CONTENTS

- 03 Corporate Profile
- 04 Message from an Officer about Environmental Initiatives
- 05 DNP Group Environmental Policy and Long-Term Environmental Vision
- 07 Efforts Related to Climate Change
- 09 Environmental Management Structure
- 17 Environmental Management Activities
 - 17 - Environmental Activity Targets and Results
 - 18 - Current Status of Environmental Impact, and Others
 - 20 - Efforts Related to Environmentally Conscious Products and Services, and Others
 - 22 - Achieving a Decarbonized Society
 - 25 - Realizing a Recycling-Oriented Society
 - 28 - For the Reduction of Environmental Pollutants
 - 31 - Realizing a Society in Symbiosis with Nature
- 32 Environmental Activities Data
 - 32 - Environmental Accounting
 - 35 - Results of Efforts
 - 36 - Manufacturing Sites with Required Business Performance Data Disclosure
- 39 Independent Review Report Comments by an Independent Institution

Editorial Policy

- The *DNP Group Environmental Report 2022* was created to announce all of the environmental activities of the DNP Group, and is based on the Environmental Reporting Guidelines (2018 Edition) issued by Japan's Ministry of the Environment.
- The *DNP Group Environmental Report 2022* is published in a page format designed to be easy to read on the Web.
- Some of the data contained in this report has been assured by LRQA Limited to ensure its reliability. A tick mark ☒ has been attached to each one of the indicators that have been assured by LRQA Limited.

Period covered by this report

This report focuses on activities carried out in the period of April 1, 2021 to March 31, 2022. It may also include reporting on important items not occurring within this period. The report also covers activities carried out at some overseas business locations in the period of January 1, 2021 to December 31, 2021.

Scope of environmental data

Environmental data was applied to Dai Nippon Printing Co., Ltd. and to all domestic companies in the Group that are subject to consolidated financial accounting. The 23 domestic manufacturing companies plus one distribution company (see pages 36–37), the non-manufacturing sites (three development centers, office buildings, sales offices, etc.) of all domestic Group companies and our overseas manufacturing companies (see page 38) were included in the scope. However, the scope of tabulation for the reduction of environmental pollutants, reduction of environmental impact incurred during transport and activities at offices covers operations in Japan.

Standards for Calculating Environmental Performance Indices

The standards used for calculating environmental performance indices are published separately on the Web.

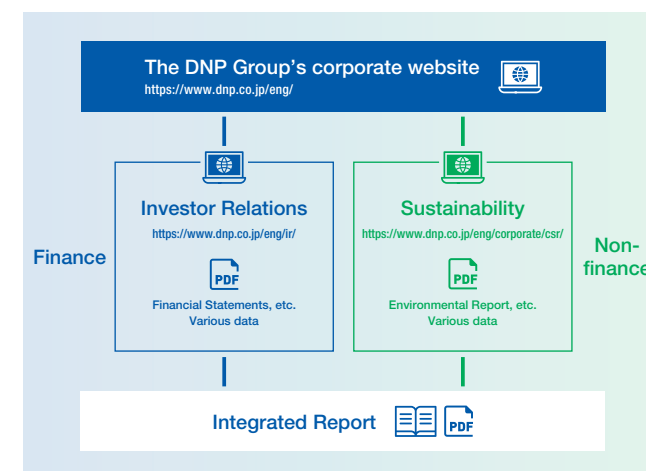
<https://www.dnp.co.jp/eng/corporate/csr/report/>

In this report “DNP” indicates the DNP Group and is differentiated from Dai Nippon Printing Co., Ltd.

Issued

October 2022 (Next scheduled issue: October 2023)

DNP Group's Information Disclosure



About the cover design

DNP is currently conducting the redevelopment of the Ichigaya district of Shinjuku-ku, Tokyo where our head office is located. As part of this effort, we are creating a green belt, “Ichigaya-no-Mori (The Ichigaya forest)”, as a new form of urban “forest.” The photo shows wintersweet growing at our forest.

Corporate Profile (As of March 31, 2022)

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

Website: <https://www.dnp.co.jp/eng/>

Established: October 1876

Incorporated: January 1894





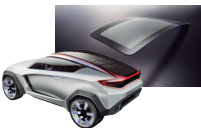


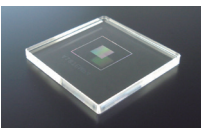


Paid-in Capital: ¥114,464 million

Number of Employees: 36,542 (Consolidated); 10,082 (Non-consolidated)

Financial Data: (FY ended March 2022)
Consolidated Net Sales ¥1,344.1 billion (up 0.7% year-on-year)
Consolidated Operating Income ¥66.7 billion (up 34.8% year-on-year)
Consolidated Ordinary Income ¥81.2 billion (up 35.6% year-on-year)
Net income attributable to shareholders of the parent ¥97.1 billion

Business segments:

Percentage of total sales

Printing	Information Communication Books and magazines, commercial printing, smart cards, network businesses, imaging communication, etc.	51.9 %	 Hybrid bookstore network "honto"	 Smart cards	 Ki-Re-i ID photo kiosk
	Lifestyle and Industrial Supplies Packaging, housing and non-housing interior/exterior materials, industrial high-performance materials, etc.	28.7 %	 Environmentally conscious packaging	 Curved resin glazing	 Exterior materials for buildings
	Electronics Display components, electronic devices, optical films, etc.	15.7 %	 Semiconductor photomask	 Master template for nanoimprinting	 Optical films used for displays
Beverages	Beverages Manufacturing and sales of beverages by Hokkaido Coca-Cola Bottling Co., Ltd., etc.	3.7 %	 Beverages		

Message from an Officer about Environmental Initiatives

Managing Director
Satoru Inoue



The DNP Group is constantly thinking about co-existence between our business activities and the global environment, and has included “Environmental conservation and realization of a sustainable society” in its Code of Conduct. We established a specialized organization for addressing environmental problems at an early stage, in the 1970s, and have since been pushing forward with a range of initiatives.

Recent years have seen the acceleration of the climate change problem, the shift to a circular economy, the loss of biodiversity and other changes that have led to concern about the sustainability of the Earth itself. In addition, risks affecting management of DNP (variable factors) are becoming increasingly diverse and wide-ranging due to rapid changes in the social environment.

Given these circumstances, we believe it important to assess environmental, social, and economic risks from a longer-term perspective as we seek business opportunities. For this purpose, in April 2022, we reorganized the Sustainability Committee into an organization chaired by the president that is responsible for managing medium- to long-term risks, identifying business opportunities, and ensuring they are reflected in management strategy.

In addition, in March 2022 we revised the DNP Group Environmental Policy that was established in March 2000, to increase the environmental awareness of every employee. We have since been pushing forward with our activities with a high level of environmental awareness throughout the supply chain, in addition to our awareness of the importance of legal compliance.

In March 2020, DNP formulated the DNP Group Environmental Vision 2050 to present what DNP ought to be to realize a sustainable society. We are accelerating specific activities for the realization of a decarbonized, recycling-oriented society in harmony with nature.

To establish a decarbonized society, we are trying to reduce greenhouse gas (GHG) emissions from the business activities of our sites to net zero by 2050. In addition to enhancing our existing energy-saving activities, we are changing our business portfolio to one with a low environmental impact and high added value and introducing renewable energy. We are also identifying new environmental themes and driving the development of technology for low-carbon products and services.

To realize a recycling-oriented society, we have set a goal of increasing the resource recycling rate, which

is the ratio of material/chemical recycling to waste we discharge, and we are pushing forward with the efficient use of plastics and other resources. We are also focusing our efforts on the more sustainable use of plastic products, the development of products which use alternative materials such as bioplastics and recycled materials and other initiatives.

To build a society in harmony with nature, we are taking initiatives including the procurement of raw materials in consideration of biodiversity and the creation of green spaces that consider local ecosystems. The procurement of paper in particular relies heavily on and greatly affects the ecosystem, so we developed guidelines in 2012 to maintain sustainable forest resources and have increased our efforts to use FSC®-certified paper and ensure the traceability of paper.

Major activities for FY2021 and future initiatives

DNP is reducing environmental impact, with goals established for seven items. Above all, regarding the reduction of GHG emissions, a point of focus for us, in April 2021 we lowered our 2030 target to be in line with the “well below the 2°C” level and the SBTi again approved this revised target. Thus, we have strengthened our activities. Additionally, to increase sales of environmentally conscious products and services and promote resource recycling, we set new indicators in FY2021 and have been pushing forward with activities since then. In FY2021, we achieved our annual targets for all of the items.

DNP will continue to create the value that people and society want while considering the harmony of our business activities and the global environment as a requirement for moving forward. We also take into account the impact of our business activities throughout the supply chain as we work to reduce environmental impact.

DNP Group Environmental Policy

DNP has set “environmental conservation and the realization of a sustainable society” as one of the tenets in our DNP Group Code of Conduct, which we have established as necessary for all of our activities for the realization of the Corporate Philosophy, “The DNP Group connects individuals and society, and provides new value.” In March 2000, we established the DNP Group Environmental Policy, aiming to help realize a sustainable society by reducing the environmental impact based on an understanding of the relationship between all of our business activities and the environment.

We revised this policy in March 2022 because, in recent years in particular, society’s concerns about environmental problems have been growing, and we must carry out activities in view of the environmental impact of the supply chain as a whole.

The DNP Group positions initiatives to environmental issues among our important management challenges. We will boost the environmental awareness of each and every employee, promote environmental conservation efforts throughout the entire supply chain from procurement to disposal and recycling, and contribute to the realization of a sustainable society.

1. We will remain aware of the environmental impact of our business activities, comply with environmental laws and regulations and endeavour to prevent environmental pollution.
2. We will make efforts to achieve carbon neutrality, in order to mitigate climate change, by minimizing energy use in our business activities, and introducing renewable energy.
3. We will minimize our use of resources, and focus on reducing and recycling waste, targeting the use of sustainable resources.
4. We seek to achieve harmony with local ecosystems to conserve biodiversity.
5. We will pursue the development and popularization of eco-friendly products and services aiming to reduce environmental impact throughout the entire supply chain.

In order to achieve these initiatives, we will build an environmental management system, which we will operate by setting objectives and targets, and work hard to make continuous improvements.

We will make timely disclosures regarding these activities and engage in proactive communication with our stakeholders.

DNP Sustainability Committee, Chairman
Policy instituted March 2000
First amendment March 2010
Second amendment March 2022

* Effective April 1, 2022, the Sustainability Committee was reorganized to be chaired by Yoshinari Kitajima, President and Representative Director.

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.

Initiatives for Achieving the DNP Group Environmental Vision 2050

DNP established the DNP Group Environmental Vision 2050, and guided by it we aim to contribute to the realization of a decarbonized, recycling-oriented society in harmony with nature by 2050.

To realize the vision by 2050, we used backcasting to set the 2025 Medium-Term Targets below.

The previous 2030 GHG reduction target received SBTi approval in 2018 as “well below the 2°C scenario.” Because this target was expected to be achieved as early as during FY2020, in March 2021 we set the bar higher so that it could be a milestone on the path toward the realization of zero emissions in 2050. In April 2021, the new target was recognized by the SBTi as well below the 2°C scenario (WB 2°C).

The GHG reduction target: **40% reduction from FY2015 by 2030 (SBT)**

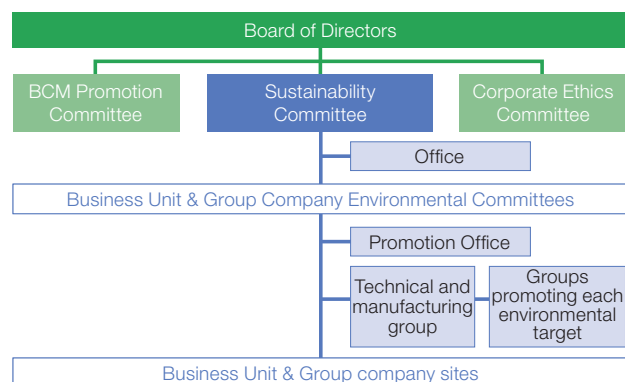
Action		Milestone		Our aspiration	
<div>Backcasting</div>					
Item		2025 Target	2030 Target	2050	
Reduction of GHG emissions	<ul style="list-style-type: none">• Energy-saving activities and shift to high-efficiency equipment• Conversion of the business portfolio• Introduction of renewable energy		Reduce GHG emissions by 40% compared to FY2015 level.	Decarbonized society	<div>DNP Group Environment Vision 2050 DNP targets the realization of a decarbonized society, a recycling-oriented society and a society in harmony with nature by creating new value through Printing and Information (P&I) innovation designed to achieve the emergence of a sustainable society. [A Decarbonized Society through Climate Change Mitigation and Adaptation]<ul style="list-style-type: none">• We aim to achieve effective net-zero greenhouse gas (GHG) emissions from business activities at our own sites.• We will contribute to create a decarbonized society through our products and services.[A Recycling-Oriented Society through the Efficient use of Resources]<ul style="list-style-type: none">• We will provide maximum value through the efficient use and recycling of resources throughout the value chain.[A Society in Harmony with Nature via the Conservation of Biodiversity]<ul style="list-style-type: none">• We aim to minimize the impact on biodiversity throughout</div>
Reduction of environmental impact incurred during transport	<ul style="list-style-type: none">• Introduction of low-carbon-emission vehicles• Expansion of mixed loading and the modal shift	Reduce fuel use for transport per amount of sales by 15% compared to FY2015 level.			
Increase of sales of environmentally conscious products and services	<ul style="list-style-type: none">• Accelerate the development of products that contribute to the environment.• Promotion of the development of easy-to-recycle products	Increase the percentage of super-eco products sales to 10%.		Recycling-oriented society	
Resource recycling	<ul style="list-style-type: none">• Minimization of undesired materials• Promotion of recycling• Minimization of the landfill waste rate	Improve the resource recycling rate by 5% compared to FY2015 level.*1 Maintain zero emissions.			
Reduction of water usage	<ul style="list-style-type: none">• Efficient water use	Reduce water use per amount of sales by 35% compared to FY2015 level.			
Reduction of VOC emissions	<ul style="list-style-type: none">• Maintenance and management of odor reduction equipment	Maintain the FY2015 level.		Society in symbiosis with nature	
Environmental conservation*2	<ul style="list-style-type: none">• Thorough adherence to baselines through trend management	Maintain the level at 70% of the required standard or less.			

*1 Resource recycling rate: The ratio of material/chemical recycling to amount of undesired materials (waste + valuable waste) excluding paper as valuable waste, which is 100%-recycled. Recovery of heat from combustion, recycling of waste plastics into solid fuels, and the recycling of waste oil into fuels, etc. are treated as thermal recovery and excluded from recycling.

*2 Environmental conservation items: Air emissions subject to emissions regulations, water emissions subject to wastewater, as well as the maximum concentration of odors, maximum level of noise, and maximum level of vibration at our site perimeters.

Efforts Related to Climate Change

• **Governance Structure** → Related pages: 10–11
DNP positions addressing climate change and other environmental issues as an important management issue. We have established a committee specializing in sustainability and have been moving forward with initiatives under the management and supervision of the Board of Directors. In April 2022, we reorganized the Sustainability Committee into an organization chaired by the president, aiming to improve the sustainability of the environment, society, and economy and to drive the sustainable growth of DNP. This committee collaborates with the Corporate Ethics Committee and the BCM Promotion Committee to analyze and manage company-wide risks, identify business opportunities and enable them to be reflected in business strategies in its medium- to long-term corporate activities while stressing the importance of ESG (environment, society, governance) issues. Other activities of the Sustainability Committee include the deliberation and decision-making regarding the sustainability-related policies, targets, and plans of the overall Group, as well as supervision of the progress of plans and the status of achievement of targets.



*For details of analysis using the TCFD framework:
DNP Group Integrated Report 2022 (pages 60–63)

• Risk management

The Sustainability Committee identifies environmental risks, including climate change risks, at least once a year in light of business plans from the perspective of stakeholders' interests, degree of impact and possibility of influence, and assesses and manages the identified risks. Risks and opportunities that are regarded as particularly important are discussed by the Sustainability Committee and then reviewed by the Board of Directors. In the review meeting, activities are prioritized and targets are set, and the results of reviews are reflected in the management of the Group.

In addition, Environmental Committees have been set up within the Operations Department and Group companies as organizations overseeing domestic and overseas activities in each business area. These committees carry out activities by setting targets and plans in light of business characteristics. The progress of the activities is managed by the office of the Sustainability Committee on a quarterly basis. This office also summarizes the status of the achievement of the targets of the Group as a whole every six months, reports the status of progress of activities to management and provides feedback to the Operations and Group Company Environmental Committees to improve initiatives.

• Strategy

DNP identifies the risks presented by climate change and considers strategies to address long-term risks before the promotion of its businesses. To do this, we assess and analyze the qualitative and quantitative financial impact of risks and their period of impact using multiple scenarios published by international organizations.* Based on the results of the scenario analysis, we address the projected climate risks flexibly and strategically. We will improve the resilience of our business activities over the medium and long term under all of the scenarios.

[Transition risks]

It is highly likely that the stricter regulation of GHG emissions will result in the ubiquitization of renewable energy, the introduction of emissions trading schemes, the introduction of carbon taxes and other changes which are expected to increase operating costs. In response, we will change our business portfolio in consideration of environmental impact and added value. To achieve net-zero GHG emissions from our business activities at our sites by 2050, a goal in the DNP Group Environmental Vision 2050, we have formulated medium-term targets to be achieved by 2030 and have been pushing forward with energy-saving activities, shifting to high-efficiency equipment using internal carbon prices and introducing renewable energy in a well-planned manner.

We also expect that the demand and the market for low-carbon products and services will expand and businesses will be required more than ever to shift to low-carbon technologies and push forward with the development of these technologies. To respond to these changes, DNP combines the strengths of Printing & Information (P&I) and closely cooperates with outside partners to create value. In "Environment and Energy" which is one of our growth areas, we have set the environment and mobility businesses as focus businesses in our Medium-Term Management Plan from the perspectives of profitability and market growth potential. We project that our businesses will grow in fields such as renewable energy, low-carbon products including battery pouches for lithium-ion batteries, and security solutions for the sharing economy. In addition, we are expanding DNP eco-friendly packaging the GREEN PACKAGING, which provides both environmental consideration and convenience. We are also developing the DNP Life Cycle CO₂ Certification system, which contributes to the decarbonization of entire supply chains by calculating the CO₂ emissions of products and services over their entire life cycle. We are promoting the intensive use of management resources and strategic investments for strengthening these businesses that are our focus.

[Physical risks]

In the short term, we assume the frequency and severity of disasters caused by torrential rains will increase, and this is likely to cause the shutdown of operations, supply chain disruptions, and other events. In the medium to long term, the rise in the average temperature and changes in water supply and demand are expected to result in increased costs, hindered operations and other events. We have established a structure for managing these risks to ensure business continuity. Specifically, for several years we have been implementing disaster prevention measures, such as the elevation of outdoor equipment and measures to prevent water from getting into buildings. We are also implementing initiatives to enhance supply chain management, including the establishment of a multiple-site production system and the diversification of suppliers.

* Scenarios we used: RCP 8.5 scenario based on the fifth report of the Intergovernmental Panel on Climate Change (IPCC), and Net-zero emissions by 2050, the sustainable development scenario by International Energy Agency (IEA)'s World Energy Outlook (WEO)

Efforts Related to Climate Change

Climate change-related risks

1. Risks related to the shift to a decarbonized society

(risks in a scenario in which a rise in average temperature is limited to less than 2°C or 1.5°C)

Type	Risks related to climate		Impact on financial affairs, etc. of DNP					
			Negative	Level of impact	Likelihood	Positive	Level of impact	Likelihood
Policies, laws and regulations	Tightening GHG emissions regulations	Raising emission reduction targets becomes mandatory	Medium term <ul style="list-style-type: none"> Increased capital expenditures to raise energy efficiency Systematic capital expenditures based on internal carbon pricing 	Medium	High	—	—	—
		The introduction of renewable energy becomes mandatory	Medium term <ul style="list-style-type: none"> Increased capital expenditures for the introduction of renewable energy Increased expenses for purchasing Non-Fossil Certificate Estimate for additional expenses as of 2030 due to the tightening of GHG emissions regulations to limit the temperature increase to 1.5 °C level: Approx. 600 million yen/year 	Low	High	Short to medium term <ul style="list-style-type: none"> Growth of sales of products related to solar power generation Growth of sales in environment-related businesses Projection for FY2024: 175 billion yen (FY2020 result: 114.5 billion yen)	Medium	High
		Introduction of an emissions trading system	Medium term <ul style="list-style-type: none"> Increased expenses for purchasing emissions rights Estimated additional expenses as of 2030 due to the tightening of GHG emissions regulations to limit the temperature increase to 1.5 °C level: Approx. 400 to 800 million yen/year 	Low	Medium	Medium term <ul style="list-style-type: none"> Gain on sale of emissions rights due to reduction of emissions 	Low	Medium
		Introduction of a carbon tax	Long term <ul style="list-style-type: none"> Increased operating cost due to imposition of a carbon tax on GHG emissions Estimate for expenses as of 2030, assuming 100 to 120 US dollars/t-CO₂ of carbon tax using the scenario of the International Energy Agency (IEA): Approx. 8.8-10.5 billion yen/year 	High	Low	—	—	—
		Acceleration of the carbon neutrality of the supply chain	Medium term <ul style="list-style-type: none"> Increased demand from major clients, etc. for the reduction of emissions Business contracts impacted Suppliers passing on the prices of raw materials 	Medium - High	High	Medium term <ul style="list-style-type: none"> Secure an advantage by calculating CO₂ emissions from products' entire lifecycle, developing the calculation business 	Medium	High
Technology	The shift to low-carbon technologies	Accelerating technological innovation to achieve carbon neutrality	Short to medium term <ul style="list-style-type: none"> Increased investment in the development of new technologies Loss of markets due to delays in development and decreased profit 	Medium - High	Medium	Medium term <ul style="list-style-type: none"> Increased market share through early development The promotion of development for the use of next-generation fuels such as hydrogen and ammonia Short term <ul style="list-style-type: none"> Increased demand for battery pouches for lithium-ion batteries and mobility materials due to an increase in the use of EVs Growth of sales in mobility-related businesses Projection for FY2024: 100 billion yen (FY2020 result: 39.5 billion yen)	High	High
Market/evaluation	Changes in customer behavior	Reduction in products and services that are not low-carbon or environmentally conscious	Medium term <ul style="list-style-type: none"> Loss of market and decrease in revenue due to a lack of carbon reduction Acceleration of the shift to non-petrochemical products, a negative impression of plastic products penetrates markets Growing demand for the replacement of non-environmentally conscious materials with alternative materials 	High	Medium	Medium term <ul style="list-style-type: none"> The promotion of the development of and the growing market for low-carbon products and services Short term <ul style="list-style-type: none"> Enable the market for recycled materials, biomass materials and paper, etc., to grow as replacements for existing plastic products Secure an advantage by calculating CO₂ emissions from products' entire lifecycle Growth of sales in environment-related businesses Projection for FY2024: 175 billion yen (FY2020 result: 114.5 billion yen)	High	High
	Increase in concerns of stakeholders	Worsening of the corporate image, a decline in stock price and exclusion from investments	Short to medium term <ul style="list-style-type: none"> Loss of market due to a lack of carbon reduction and a decrease in revenue due to a decrease in transactions Outflow of human resources and an increase in hiring costs 	Medium	Medium	Medium term <ul style="list-style-type: none"> Increased information disclosure and improvement of engagement Secure advantages and human resources as a company leading the way in sustainability 	Medium	Medium

Degree of impact We have determined the degree of impact on the interests of stakeholders and the business considering business plans, identified risks related to the environment given their likelihood, and categorized the risks that are predicted to have a long-term effect or a financial impact of 10 billion yen or more as having a high degree of impact. Risks with an impact lasting several years or a financial impact of several hundred million yen were categorized as having a low degree of impact.

Degree of financial impact: High: approx. 10 billion yen Medium: 1 to 10 billion yen Low: less than 1 billion yen

2. Risks caused by the emergence of the physical impact of climate change (risks in a scenario in which the average temperature rises 4°C)

Type	Risks related to climate		Impact on financial affairs, etc. of DNP					
			Negative	Level of impact	Likelihood	Positive	Level of impact	Likelihood
Urgency	Increase in wind and flood damage from heavy rainfall, flooding, etc.	Suspension of operations in the event of a disaster	Short term <ul style="list-style-type: none"> Decreased revenue due to delayed manufacturing Increased cost of disaster control measures Disaster control measures for production facilities and establishments, development of production systems in multiple locations, etc. 	Medium	High	—	—	—
		Disruption of supply chains	Short term <ul style="list-style-type: none"> Decreased revenue due to delayed manufacturing and shipping Increased cost of purchasing raw materials and interruption of supply 	Medium	High	—	—	—
Chronic	Increase in temperature and long-term heat waves	Hindrance to operations through the increased occurrence of heat stroke, etc.	Medium term <ul style="list-style-type: none"> Decreased revenue due to delayed manufacturing 	Medium	High	—	—	—
		Increase in costs due to growing demand for cooling	Medium term <ul style="list-style-type: none"> Increased energy expenses Increased capital expenditures 	Medium	High	—	—	—
	Water-related risks in river basins	Suspension of operations in locations susceptible to flooding such as river basins	Medium term <ul style="list-style-type: none"> Decreased revenue due to delayed manufacturing Increased cost of disaster control measures Disaster control measures for production facilities and establishments, development of production systems in multiple locations, etc. 	Medium	High	—	—	—

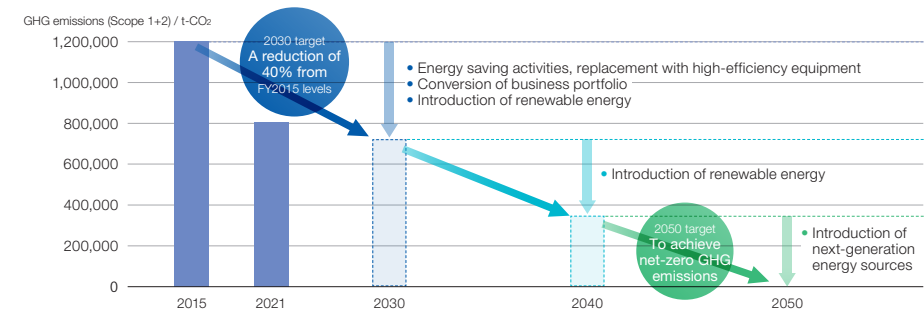
• Targets and Indicators → See related pages: 6, 17, 19, 22-24

DNP has defined the following targets for maximizing opportunities and minimizing risks resulting from climate change.

Maximizing opportunities: Value creation	Under the Medium-Term Management Plan, we will work to expand our focus businesses and contribute to the creation of a decarbonized society through our products and services.
Minimizing risks: Foundation of business activities	We will reduce GHG emissions from business activities at our own sites. Medium-term reduction target: To achieve a reduction of 25% from FY2015 levels by 2030 Long-term environmental vision: To achieve effective net-zero emissions by 2050

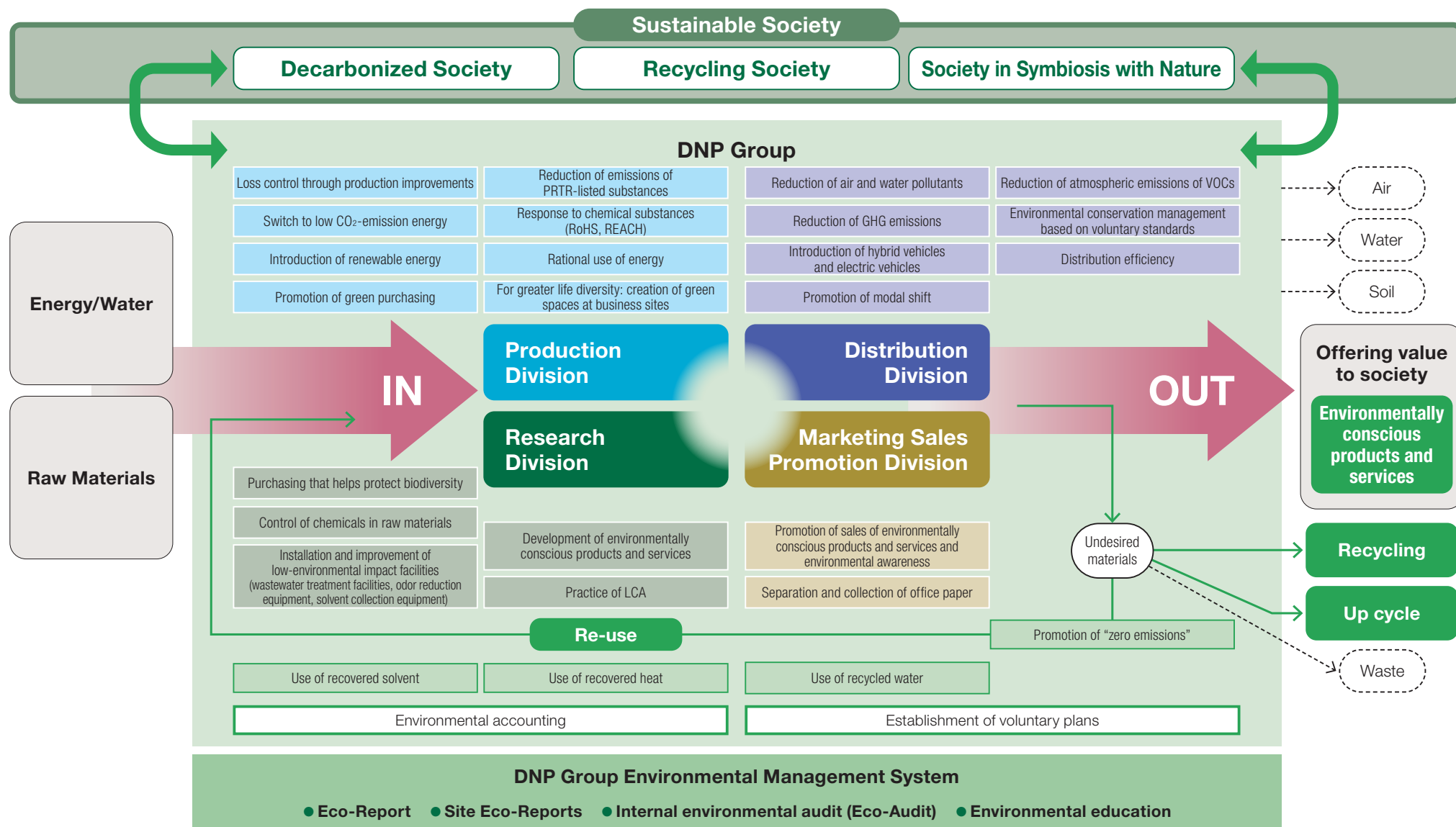
• Roadmap for achieving carbon neutrality by 2050

Toward the realization of a decarbonized society, a target in the DNP Group Environmental Vision 2050, we have drawn a roadmap for the reduction of GHG emissions from the business activities of our own sites to net zero by 2050.



Environment Management Structure

Business and Environmental Activities



Environmental Management Structure

Environmental Management Structure

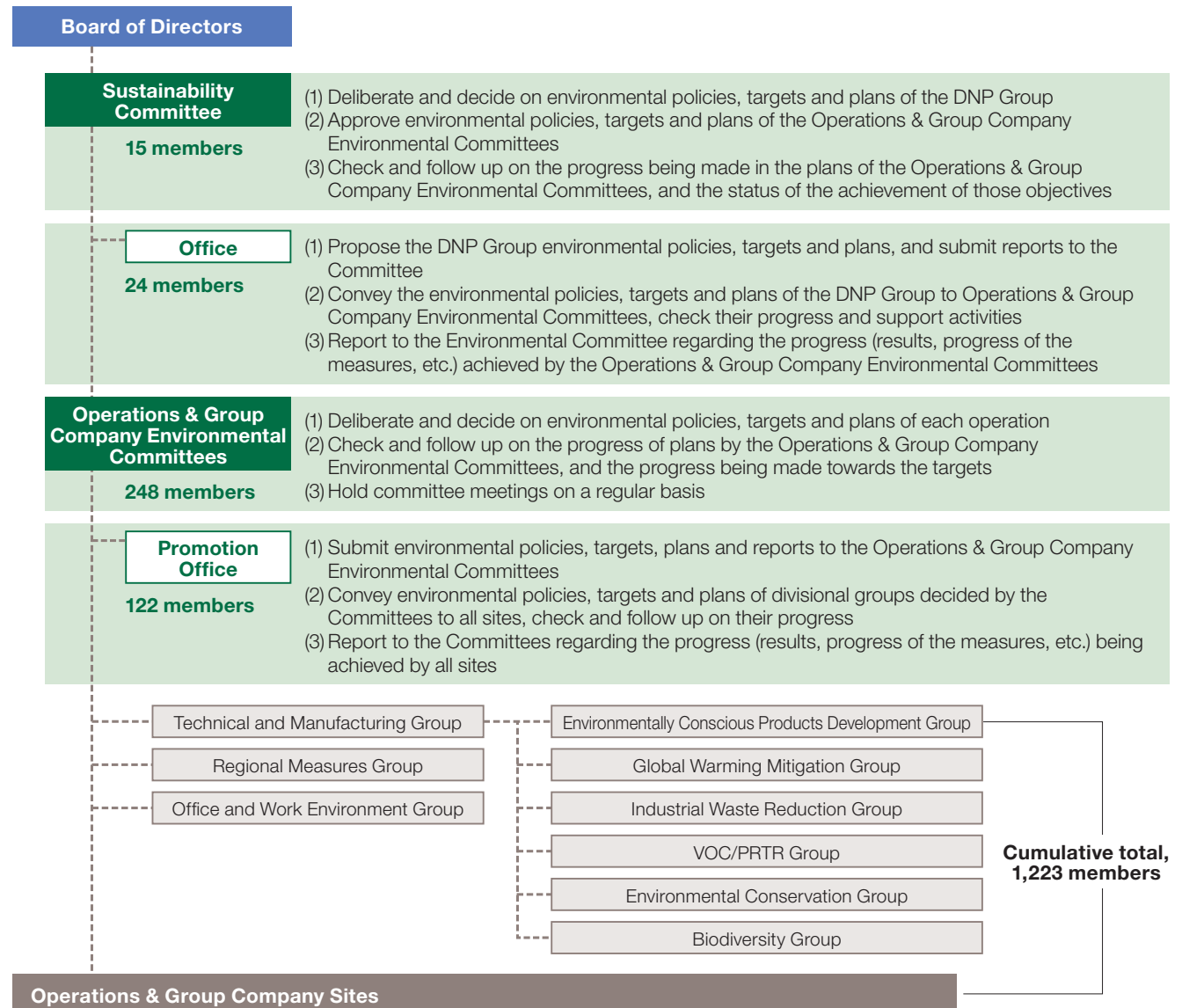
The DNP Group has established the Sustainability Committee to coordinate Group-wide environmental activities and the Operations & Group Company Environmental Committees as a body to promote activities within each business segment. Each committee has its own office or promotion office.

• Sustainability Committee

Chaired by the president and consisting of the directors of the basic organizations at the company's headquarters, this committee manages medium- and long-term risks from the perspective of sustainability, identifies business opportunities and ensures they are reflected in its management strategies. In this process, the committee deliberates and makes decisions regarding the environmental policies, targets, and plans of the entire Group, and it monitors the progress of the plans and the status of the achievement of targets.

• Operations & Group Company Environmental Committees

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



Environmental Management Structure

Environmental Management System

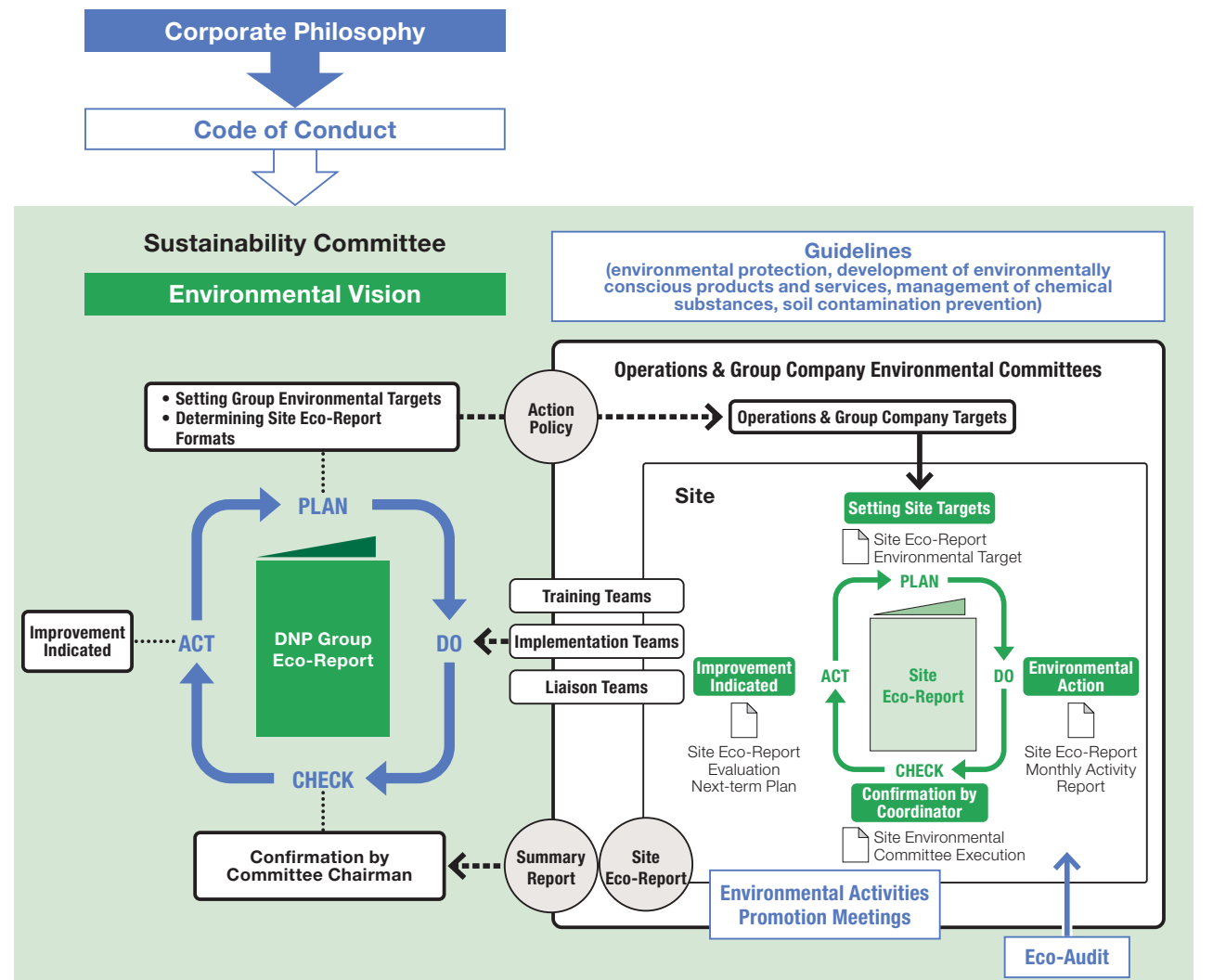
At DNP, we created our own environmental management system (EMS) in 1993, prior to the publication of the ISO 14001 standard. Our EMS uses the twin tools of the DNP Group Eco-Reports and Site Eco-Reports set up by the Sustainability Committee Office as a framework. We also execute the Plan-Do-Check-Act cycle every six months.

The DNP Group 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 Company Environmental Committees and to every business site. The Site Eco-Reports document each site's targets, plans, and status of activities. The Operations & Group Company Environmental Committees use the Site Eco-Reports to gain understanding of the situation at each site and submit a summary report to the officer in charge of the environment.

The Sustainability Committee and the Operations & Group Company Environmental Committees check progress at regularly held environmental activities promotion meetings.

The committees are also reinforcing management by instantly sharing important information via IT.

Outline of the DNP Group Environmental Management System



Environmental Management Structure

Eco-Audit Content and Flow

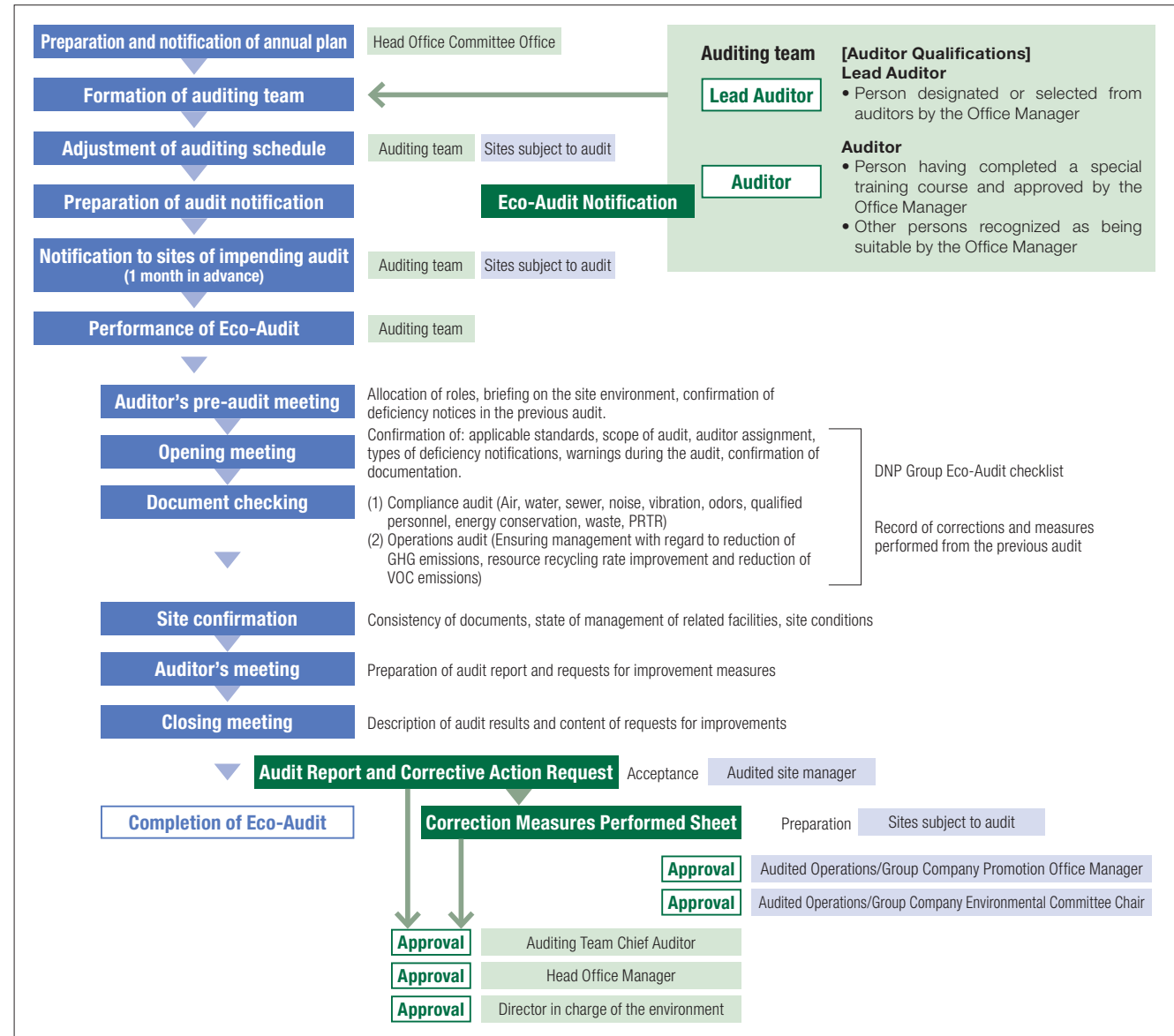
We began implementing “Eco-Audits” in 1996, so as to make our Environmental Management System (EMS) more effective.

Eco-Audits have the following features.

- (1) Auditors are DNP employees with no conflict of interest with the sites being audited and who possess specialized knowledge about products and processes, which produces meaningful and objective results maintaining an independent perspective.
- (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 Sustainability Committee.

* We will endeavor to prevent the spread of COVID-19, examining the optimal work flow, including remote working, and conduct eco-audits as necessary.



Environmental Management Structure

Eco-Audit Performance

Number of sites audited	62 sites
Number of attendees at sites	460 persons
Cumulative auditor numbers	81 persons
Cumulative auditing hours	155 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

Findings determined to be “improvement required” in FY2021 included the omission of the inspection of equipment and facilities. We have confirmed that improvement measures have been taken in all of those cases.

We will analyze the content of the findings, determine the actions to take, and do a follow-up check in the Eco-Audits to be carried out in FY2022.

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**

- Implementation status of plan
- Achievement of targets

CHECK**Status of progress management of plan**

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

ACT**Status of reviews by term**

- Review of previous term results and reflection in plan

Environmental Management Structure

Environmental Risk Management

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 are even stricter than 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 shutoff 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, such as oil absorbing sheets, 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 FY2021, we also inspected tanks, waste storage sites and areas for storing equipment that handles waste PCBs to prevent soil contamination.

• Storage of harmful substances (PCBs)

A total of 35 units containing PCBs, 16 capacitors and 19 transformers, are currently in storage at seven sites. These units were formerly used in substation facilities at our plants. All of them contain low concentrations of PCBs. They are stored in special containers to prevent leakage and managed under the strictest conditions in designated storage rooms in accordance with applicable laws to ensure there is no loss. We have completed the processing of high-concentration PCBs, excluding those contained in fluorescent lighting ballasts.

• Management of Chemical Substances in Products and Raw Materials

Companies like DNP are being called on to properly ascertain and control the chemical substances contained in raw materials and products in use throughout the supply chain.

DNP has put into operation a management system in accordance with standards issued by JIS and the JAMP Guidelines for the Management of Chemical Substances in Products.

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.

• Status of Legal Compliance

We have not received administrative guidance because of the exceeding the standards etc. during these three years. 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.

Details of Incident (Cause, Improvement Measures, and Measures to Prevent Recurrence)

December 16, 2021 at Tanabe Plant of DNP Technopack Co., Ltd.

Water quality inspection by the government →

We submitted an improvement report because the biological oxygen demand (BOD) exceeded the standard value specified in the ordinance.

A mixture of a reagent used in the manufacturing process is believed to be the cause. We have revised the work procedure to prevent recurrence. In the water quality inspection that was conducted later, it was confirmed that the BOD level is within the standard set by the ordinance.

Environmental Management Structure

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. (DNP organization names are as of June 30, 2022)

ISO 14001 Certification

Site	Date Registered*1	Registration Organization
Okayama Plant, Imaging Communications Operations	Nov. 1997	JIA-QA
Mihara East Plant, Fine Optronics Operations	Jul. 1998	DNV
Okayama Plant, Living Space Operations	Jul. 2000	JIA-QA
D.T. Fine Electronics*2	Feb. 1996	JACO
Sayama Plant No. 1, DNP Technopack	Dec. 2001	SGS
Tokyo Plant, DNP Fine Chemicals	Jan. 2002	JCQA
Ushiku Plant, DNP Data Techno	Mar. 2002	JIA-QA
Tokai Plant, DNP Technopack	Mar. 2002	SGS
Chikugo Plant, DNP Technopack	Jun. 2002	SGS
Sayama Plant, Imaging Communications Operations	Oct. 2002	JIA-QA
Tokyo Plant, Living Space Operations	Jan. 2004	JIA-QA
Kamifukuoka Plant, Fine Optronics Operations	Mar. 2004	AJA
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, DNP Data Techno	Mar. 2005	JIA-QA
Nara Plant, DNP Data Techno	Jun. 2005	JIA-QA
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	Registration Organization
DNP Fine Chemicals Utsunomiya	Mar. 1997	JCQA
Izumizaki Plant, DNP Technopack	Aug. 2008	SGS
Kasaoka Plant, DNP Fine Chemicals	Jan. 2009	JCQA
DNP Imagingcomm Europe B.V.	Mar. 2009	BV
Mihara West Plant, Fine Optronics Operations	May 2009	DNV
Okayama Plant, Fine Optronics Operations	May 2009	DNV
PT DNP Indonesia (Pulogadung/Karawang)	Aug. 2009	AJA
Hokkaido Coca-Cola Bottling	Feb. 2010	LRQA
DNP Imagingcomm America Corporation	Jun. 2013	NSF ISR
Kyoto-Minami Plant, DNP Data Techno	Dec. 2013	JIA-QA
Hagiwara Plant, DNP Tamura Plastic	Aug. 2000	JARI-RB
Iwata Plant, DNP Tamura Plastic	Aug. 2000	JARI-RB
DNP VIETNAM	Apr. 2015	Intertek
DNP HOSO	Sep. 2021	JICQA

Eco Action 21 Certification

Site	Date Registered*1	Registration Organization
Tokyo Head Office, DNP Trading	Jan. 2006	IP SuS

Registration Organization

AJA

Anglo Japanese American Registrars Ltd.

BV

Bureau Veritas

CISQ

Federazione Certificazione Italiana dei Sistemi Qualità Aziendali (Italy)

DNV

Det Norske Veritas AS (Norway)

IP SuS

Institute for Promoting Sustainable Societies

Intertek

Intertek Certification Ltd.

JACO

Japan Audit and Certification Organization for Environment and Quality

JARI-RB

Japan Automobile Research Institute

JCQA

Japan Chemical Quality Assurance Ltd.

JIA-QA

Japan Gas Appliances Inspection Association, QA Center

JICQA

JIC QUALITY ASSURANCE LTD.

LRQA

LRQA Limited

NSF-ISR

NSF International Strategic Registrations

SGS

SGS Japan

*1 Indicates the first registration date.

*2 Kitakami Plant of D.T. Fine Electronics are registered as a part of Toshiba Electronic Devices & Storage Corporation.

Environmental Management Structure

Environmental Education





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





















Type of Training	Course Name/Description	First Held	Eligibility		Time of Year
Education for New Recruits	Environmental Activity Overall (required) Basic environmental knowledge and conservation efforts of the DNP Group	1994	All new recruits	Total Attendance 9,437 persons	When joining the company
Technical Seminar	Environment/Chemicals (optional) Environmental Laws and Regulations Waste Treatment	1999	Technicians	Total Attendance 1,748 persons	Once yearly
In-company seminars	Information of global risks and SDGs, etc.	2015	All DNP Group members		As needed

Environmental Management Activities

Environmental Activity Targets and Results

DNP has prescribed targets with the following categories as priority issues and is undertaking activities in these areas.

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	Medium- and long-term target (The GHG emissions reduction targets are to be achieved by 2030 or 2050. The target year of the other targets is 2025.)	FY2021 results	Evaluation
Reduction of GHG emissions	P 6-8, P 22	To reduce GHG emissions by 40% from the FY2015 levels by FY2030 (SBT) Aiming to achieve effective net-zero greenhouse gas (GHG) emissions by 2050	Emissions in FY2015: 1.201 million tons Emissions in FY2021: 0.801 million tons 	33.3% decrease from that in FY2015 
Reduction of environmental impact incurred during transport	P 23	To reduce fuel use for transport per amount of sales by 1% per annum and 15% compared to FY2015	Per unit in FY2015: 14.2 kl/billion yen Per unit in FY2021: 12.2 kl/billion yen 	14.0% decrease from that in FY2015 
Development and sales of environmentally conscious products and services	P 20	Increase the percentage of super-eco products sales from total sales to 10%	Total sales ratio in FY2021: 10% 	
Resource recycling	P 25	Improve the resource recycling rate* by 5 points compared to FY2015 level *The ratio of material/chemical recycling to waste excluding paper as valuable waste which is 100% recycled	Resource recycling rate in FY2015: 51.7% Resource recycling rate in FY2021: 56.3% 	4.6 points improvement compared to FY2015 
		Maintain zero emissions (Japan)	Landfill waste rate in FY2015: 0.06% Landfill waste rate in FY2021: 0.05% 	Maintain zero emissions (Japan) 
Reduction of water usage	P 27	Reduce water use per amount of sales by 35% compared to FY2015	Per unit in FY2015: 8.55 m³/million yen Per unit in FY2021: 5.79 m³/million yen 	32.3% decrease from that in FY2015 
Reduction of VOC emissions	P 29	To keep the FY2015 level of atmospheric emissions of VOCs (except for methane) (Japan)	Emissions in FY2015: 4,581 tons Emissions in FY2021: 3,682 tons 	19.6% decrease from that in FY2015 
		We plan to reduce atmospheric emissions of VOCs to the greatest extent possible through the introduction of technologies and other measures, and of course by complying with local laws and regulations. (Overseas)	Continue operation of VOC recovery equipment at DNP Indonesia's Karawang Plant	
Environmental conservation	P 14	To keep the maximum concentration of air emissions subject to emissions regulations at 70% of the required standard or less	97% achievement rate of targets for FY2021 (voluntary target)	
		To keep the maximum concentration of water emissions subject to wastewater regulations at 70% of the required standard or less	98% achievement rate of targets for FY2021 (voluntary target)	
		To keep the maximum concentration of odors at our site perimeters at 70% of the required standard or less	100% achievement rate of targets for FY2021 (voluntary target)	
		To keep the maximum level of noise at our site perimeters at 70% of the required standard or less	99% achievement rate of targets for FY2021 (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 FY2021 (voluntary target)	

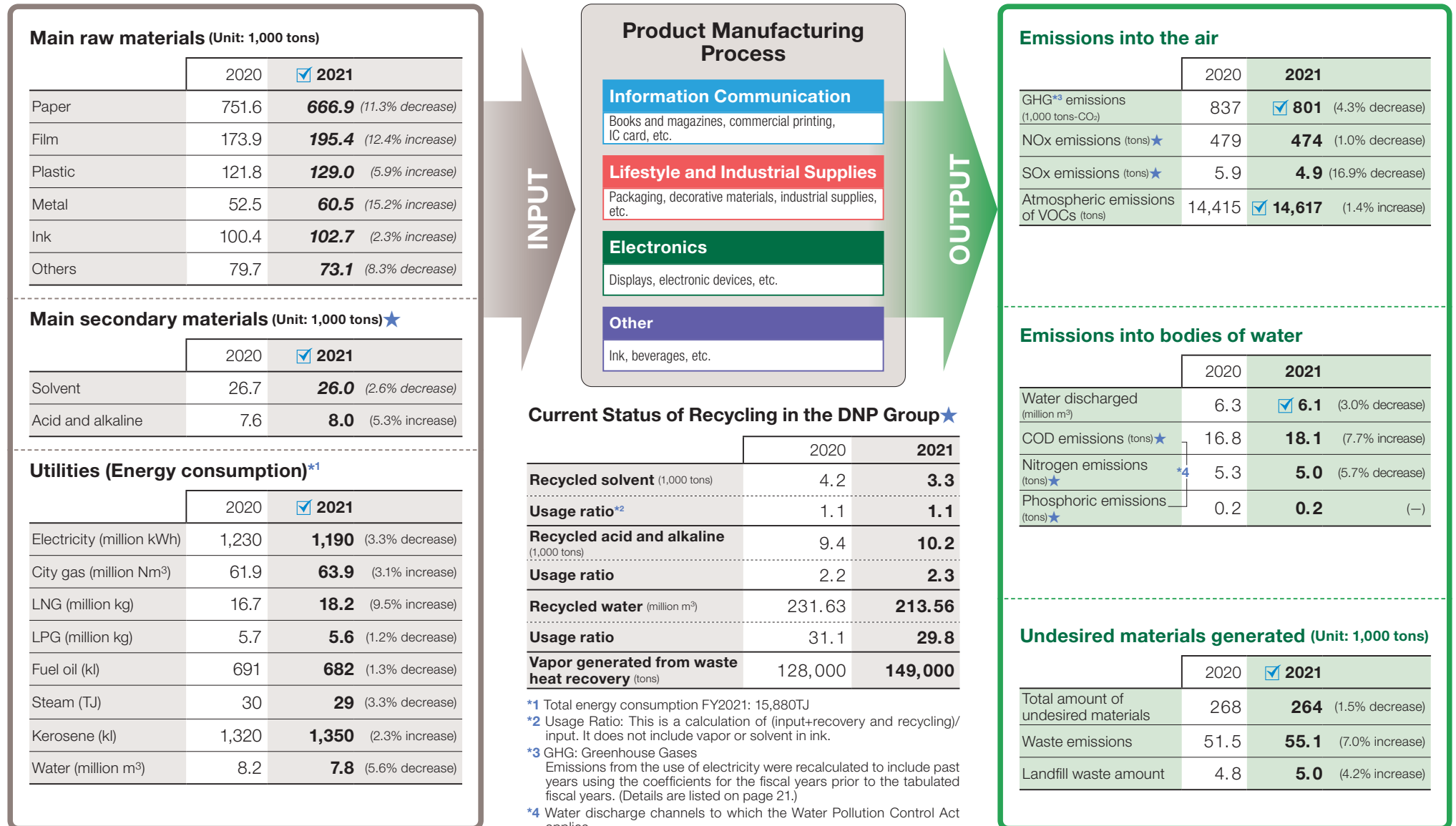
GHG Emissions Reduction Target of the DNP Group Recognized by the Science Based Targets (SBT) Initiative

DNP obtained the approval of the international organization Science Based Targets (SBT) Initiative in July 2018. In April 2021, the revised GHG emissions target was approved to get into alignment with well below the 2°C scenario (WB2°C) of the Paris Agreement. DNP will continue to reduce GHG emissions through the conservation of energy, including the introduction of energy-saving equipment.



Environmental Management Activities

Current Status of Environmental Impact

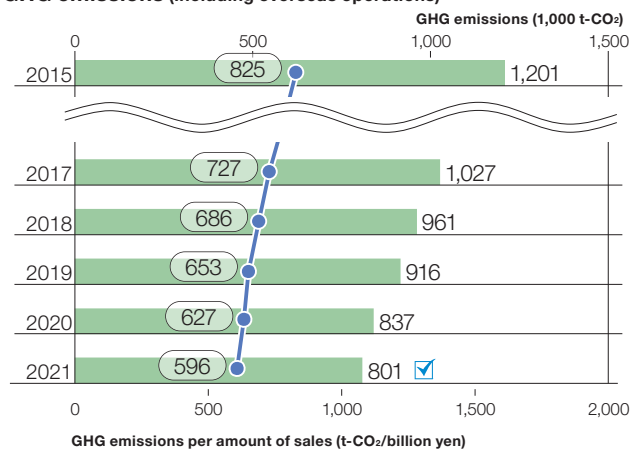


Areas revised in April 2023 are italicized.

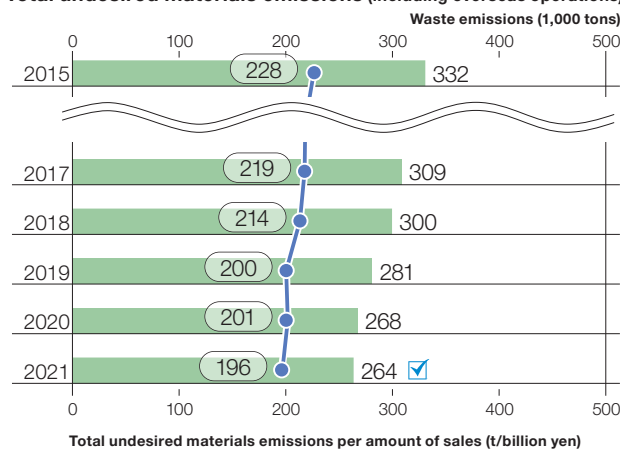
Environmental Management Activities

Environmental Impact and Environmental Efficiency

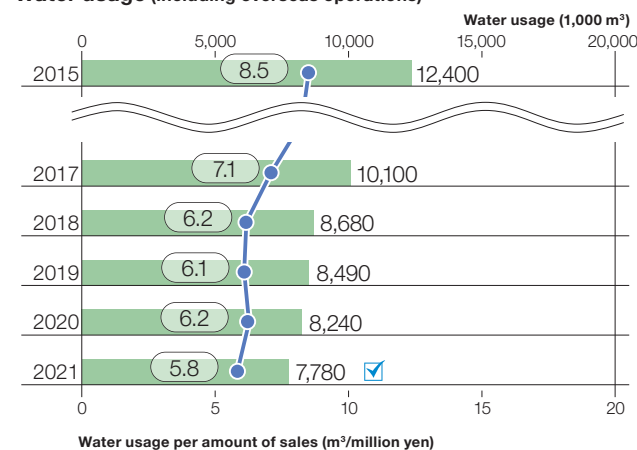
GHG emissions (including overseas operations)



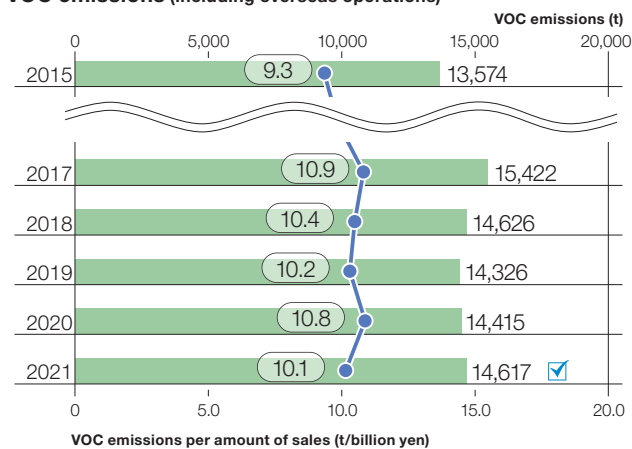
Total undesired materials emissions (including overseas operations)



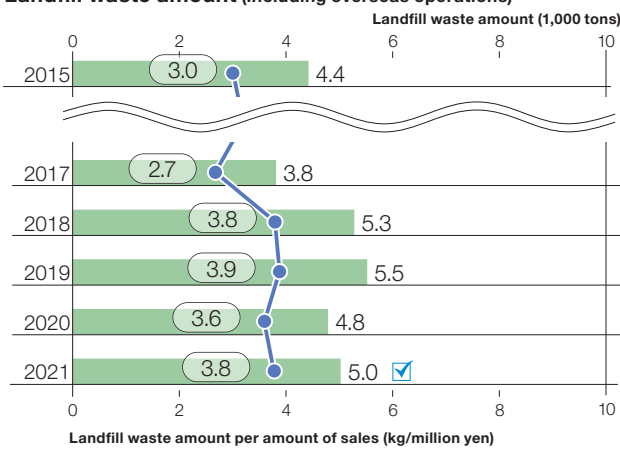
Water usage (including overseas operations)



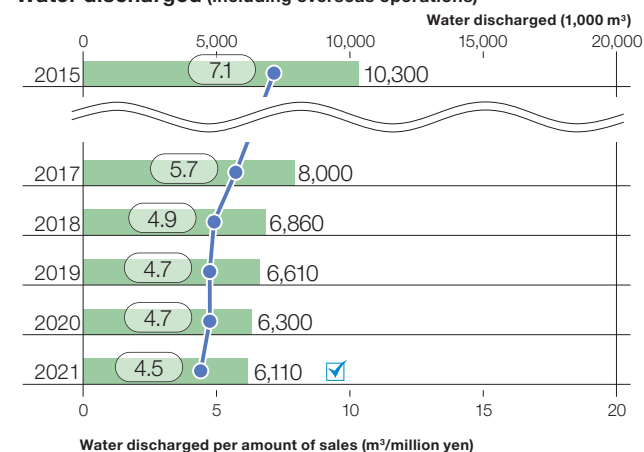
VOC emissions (including overseas operations)



Landfill waste amount (including overseas operations)



Water discharged (including overseas operations)



Environmental Management Activities

Environmentally Conscious Products and Services Development

At DNP, we have created the Environmentally Conscious Products and Services Development Guidelines in order to create environmentally conscious products and services from the design stage, so as to reduce the environmental impact of our products and services throughout their lifecycle.

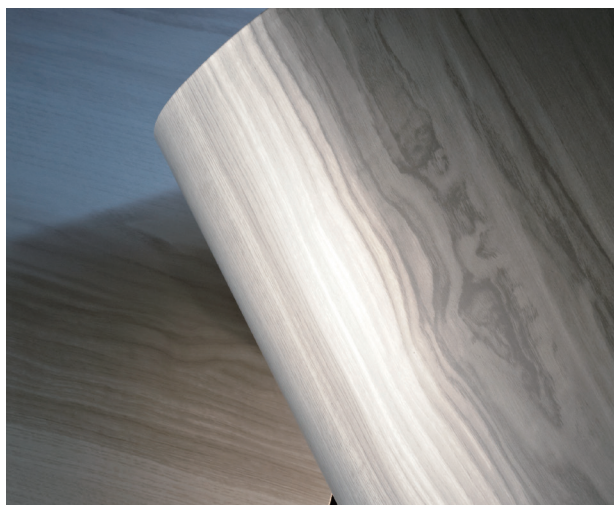
We also use our own evaluation criteria to identify environmentally superior products and services as super-eco products.

• Sales of super-eco products

FY2021 results: ¥134.8 billion

The percentage of super-eco products sales is 10%.

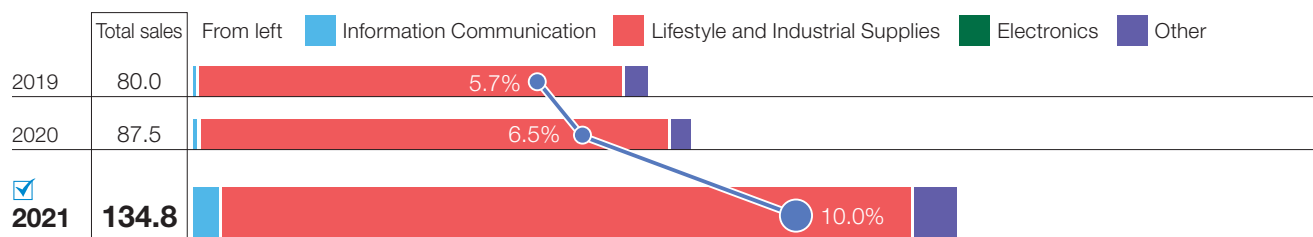
Example super-eco product



Arttec — Aluminum panels for interior and exterior use coated using a baking process

These are high value-added aluminum panels for interior and exterior use, which create a remarkably distinctive atmosphere in various parts of buildings. They are weather-resistant, long-life products made only of aluminum, a highly recyclable material.

Transition of sales of super-eco products (Unit: billion yen)



The ratio of super-eco products sales to total sales

Guidelines for developing environmentally conscious products and services

1 Reduction of environmental pollutants

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

2 Resource and energy conservation, reduction of GHG emissions

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

3 Sustainable use of resources

Utilize natural resources in a sustainable way.

4 Long-term usability

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

5 Reusability

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

6 Recyclability

Consideration is given to recyclability through the use of easily recyclable materials, designs that facilitate separation, disassembly, and sorting of individual materials, and the creation of collection and recycling systems that are easy for purchasers to use.

7 Use of recycled materials, etc.

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

8 Ease of treatment and disposal

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

9 Making environmental burden visible and taking into consideration biodiversity

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

10 Supporting and promoting environmental education and awareness

Helping to create a sustainable society.

Environmental Management Activities

Environmental Label Certification

We have earned environmental labeling certifications such as CoC (Chain of Custody) certification and the Japan Environment Association's Eco Mark. We are working to expand the sale of products and services with these certifications, so that their packaging and advertising can serve as a 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 DNP's biomass plastic packaging material, Biomatech®, a blend with plant-based materials
CoC Certification	
CoC (Chain of Custody) This is a certificate of control throughout each stage of processing and distribution	Acquired for FSC® and PEFC

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

Certification Type	Acquired by*	Licensing Number	Registration Organization	Acquisition Date
CoC: FSC®	Information Innovation Operations	FSC®-C022784	SGSHK-COC-001466	August, 2003
	DNP Trading Co.,Ltd.	FSC®-C020374	SGSHK-COC-001584	December, 2003
	Life Design Operations	FSC®-C009084	SGSHK-COC-002411	December, 2005
	Publishing Innovation Operations	FSC®-C006469	SGSHK-COC-002546	March, 2006
	Living Space Operations	FSC®-C011519	SGSHK-COC-006636	August, 2009
	DNP America, LLC	FSC®-C017302	SCS-COC-002804	October, 2009
	DNP Europa GmbH	FSC®-C101577	SGSCH-COC-007979	August, 2010
	PT. DNP Indonesia	FSC®-C111983	NC-COC-006063	September, 2012
	DNP SP Innovation Co., Ltd.	FSC®-C121224	JIA-COC-200006	May, 2014
CoC: PEFC	DNP imagingcomm Europe B.V.	FSC®-C175372	SKH-COC-000661	March, 2022
	Life Design Operations	PEFC/01-31-01	SGSJP-PCOC-2000	January, 2004
	DNP Trading Co.,Ltd.	PEFC/31-31-77	SGSJP-PCOC-0313	January, 2008
	Publishing Innovation Operations	PEFC/31-31-112	SGSJP-PCOC-1268	March, 2011
	Living Space Operations	—	SGSJP-PCOC-1414	November, 2011

- [FSC®] Forest Stewardship Council®
- [PEFC] Programme for the Endorsement of Forest Certification Schemes

*The company and divisions names are as of June 2022.

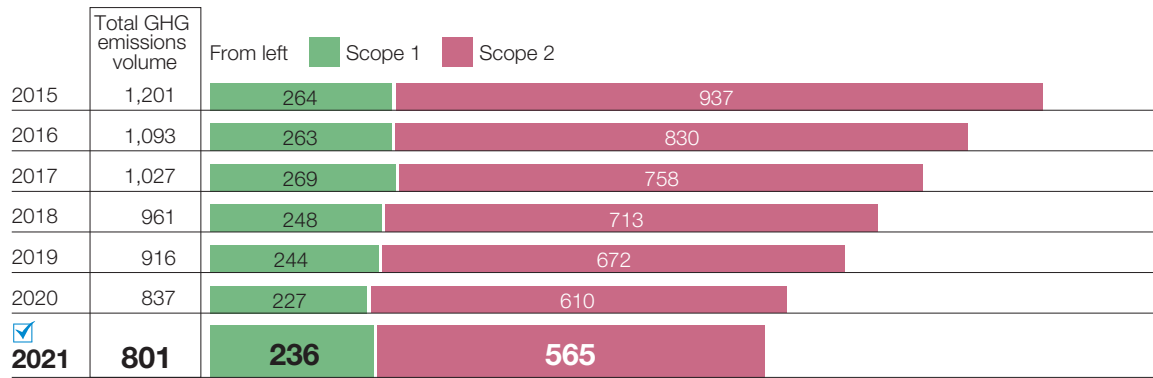
Environmental Management Activities—Achieving a Low-Carbon Society

Reduction of GHG emissions

Important steps that the DNP Group has taken leading to a Decarbonized society include reducing the consumption of forms of energy that generate CO₂ (energy conservation), switching to low CO₂-emission fuels and introducing renewable energy sources. The Group also aims to transform its business portfolio to have high added value and low environmental impact.

• GHG emissions

Scope 1 and Scope 2 GHG emissions FY2021 results: 801 [thousand tons-CO₂]



GHG emissions volume (unit: thousand tons-CO₂) GHG emissions in Japan due to electricity use, fuel use/combustion, burning of waste and atmospheric emissions of HFCs/PFCs/SF₆/NF₃ are calculated based on the Manual for Calculating and Reporting Greenhouse Gas Emissions, Ver.4.3.2 (June 2018). (Excludes some emission sources with extremely low GHG emissions.) For electricity emission factors in FY2021, the emission factor announced by each electric power company (FY 2020 results) is used at manufacturing sites and a common emission factor is used for offices and the Bookstore Group. Overseas, the emission factor for each country is used based on the GHG Protocol. (For FY2015–FY2019 as well, the domestic portion uses the same emission factor used in the fiscal years prior to the tabulated fiscal years.)

*Scope 1 emissions attributable to transportation and distribution carried out by group companies are tabulated as Scope 3 emissions.

• Introduction of renewable energy

Installation of solar power generation systems

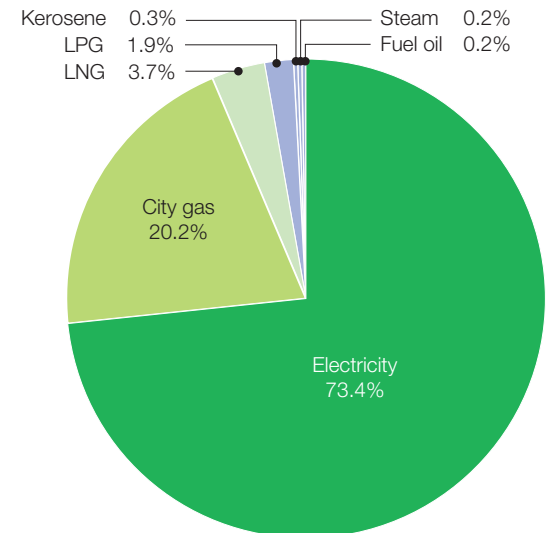
Year of installation	Place of installation	System capacity
2009	Izumizaki Plant, DNP High-performance Materials	30kW
2011	DNP Ichigaya-Kagacho Building No. 2	30kW
	Tanabe Plant, DNP Technopack	30kW
	DNP Ichigaya-Tamachi Building	10kW
2015	DNP Ichigaya-Kagacho Building	36kW
	DNP Ichigaya-Takajocho Building	24kW
	Sayama Plant	6kW
2020	Kashiwa Research Institutes	600kW

The Research and Development Center in Kashiwa, Chiba installed solar power panels in 2020, employing the PPA model. The total amount of power generated by these systems or purchased in FY2021 was 2,740 thousand kWh. 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) and other facilities.

• Domestic GHG emissions volume by category

Unit: tons-CO ₂	
Total GHG emissions volume	699,730
Energy source	677,100
Non-energy source	21,100
Methane	390
N ₂ O	500
HFC	610
PFC	10
SF ₆	20
NF ₃	0

• Domestic fuel composition ☒



*Gasoline and diesel fuel for automobile use are also used (less than 0.1%) in addition to these fuels above.

Environmental Management Activities—Achieving a Low-Carbon Society

Reduction of GHG emissions

• **Transport volume**

We are implementing distribution-related environmental impact reduction measures such as the improvement of the loading ratio, 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.

Domestic manufacturing sites FY2021 results

Cargo transport volume: 289 million ton-kilometers

Amount of fuel used for transport: 16,440 kl
(converted to crude oil)

CO₂ emissions: 43,360 tons

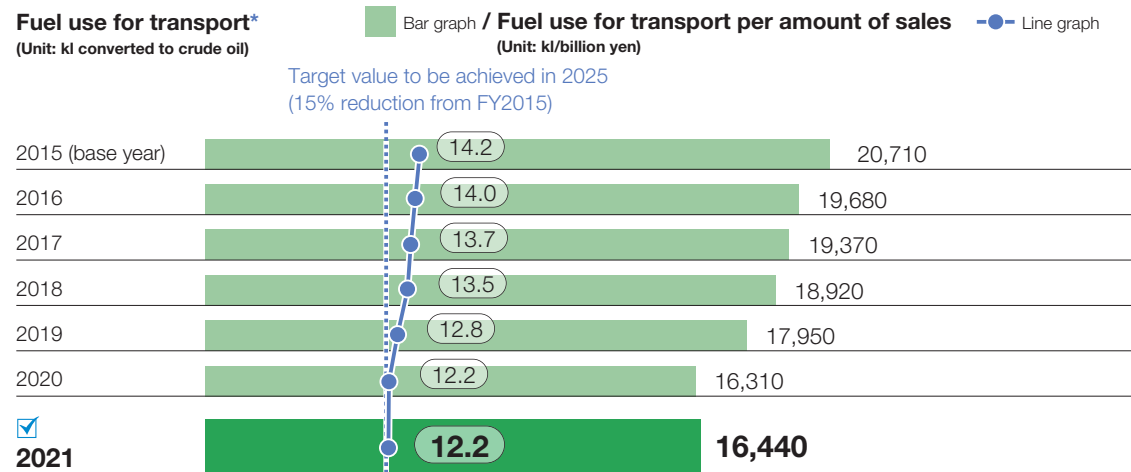
Per-unit fuel use for transport

(amount of fuel used/sales): 12.2 kl/billion yen

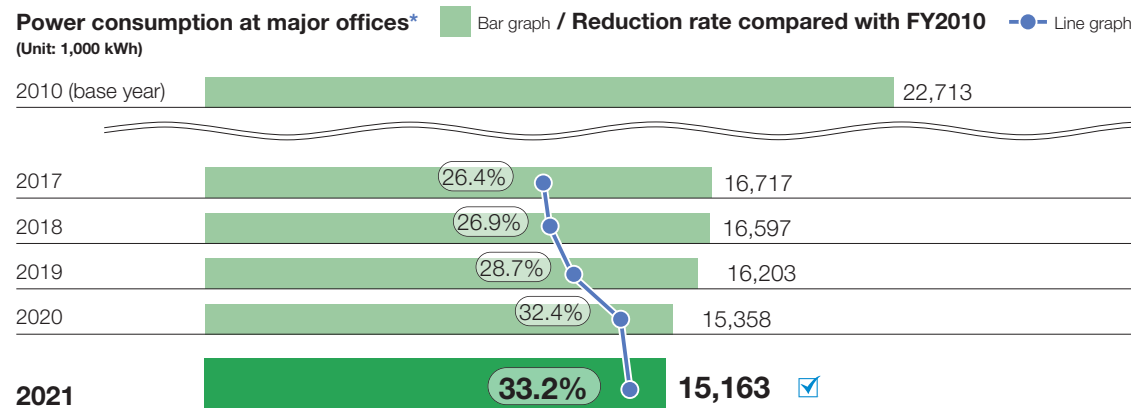
14.0% reduction compared with FY2015

• **Global warming measures for offices**

The DNP Group has been engaged in efforts to reduce CO₂ emissions for offices since FY2005. We established a target of a 20% reduction in power consumed at our offices throughout Japan compared with FY2010. Specific actions that we are implementing include completely revising the number of lighting fixtures and the level of illumination needed, changing the way air conditioners are operated, and increasing the use of LED lighting.



*Fuel use during domestic cargo transport



*34 major offices in Japan under continuous operation during the period FY2010–FY2021

Environmental Management Activities—Achieving a Low-Carbon Society

GHG emissions Across the Entire Supply Chain

At DNP, emissions in the raw material procurement phase (Scope 3, Category 1) are approx. 50% of the emissions from the entire supply chain.

We share and discuss initiatives to reduce GHG emissions and other agenda items with suppliers, including holding explanatory seminars and face-to-face meetings and conducting questionnaires. Thus, we work together with suppliers to move ahead with initiatives to reduce emissions from the supply chain.

Unit: 1,000 tons-CO₂

	FY2019	FY2020	FY2021
Scope 1 GHG emissions	244	227	236
Scope 2 GHG emissions	672	610	565
Scope 3 GHG emissions	4,520	4,260	4,240
Emissions from the supply chain	5,430	5,100	5,040

Breakdown of Scope 3 GHG emissions

Category 1	Purchased products and services	2,920	2,720	2,700
Category 2	Capital goods	110	150	92
Category 3	Fuel and energy-related activities that do not fall under Scopes 1 and 2	89	130	140
Category 4	Transportation and distribution (upstream)	160	150	180
Category 5	Waste generated by operations	52	61	29
Category 6	Business travel	9	4	4
Category 7	Employee commute	11	15	17
Category 8	Leased assets (upstream)	—	—	—
Category 9	Transportation and distribution (downstream)	650	570	620
Category 10	Fabrication of sold products	—	—	—
Category 11	Use of sold products	7	7	11
Category 12	End-of-life treatment of sold products	500	450	450
Category 13	Leased assets (downstream)	—	—	—
Category 14	Franchises	—	—	—
Category 15	Investment	7	6	6

Calculation method

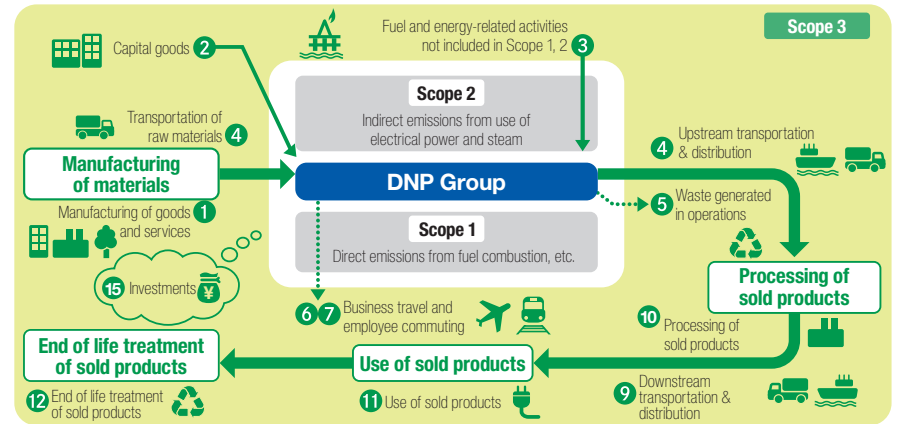
The Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE) formulated and released the “General Guidelines on Supply Chain GHG Emission Accounting, Ver 2.3” the standards of which our calculations are based upon.

- Scope 1 emissions attributable to transportation and distribution carried out by group companies were included under Category 4.
- Category 8 is included in Scope 1 and 2. Category 10 was excluded from the calculation because the component ratio of end products is extremely small.
- For Category 11, only emissions from plastic bottle beverages in Japan were calculated.
- Category 13 and Category 14 are not applicable.

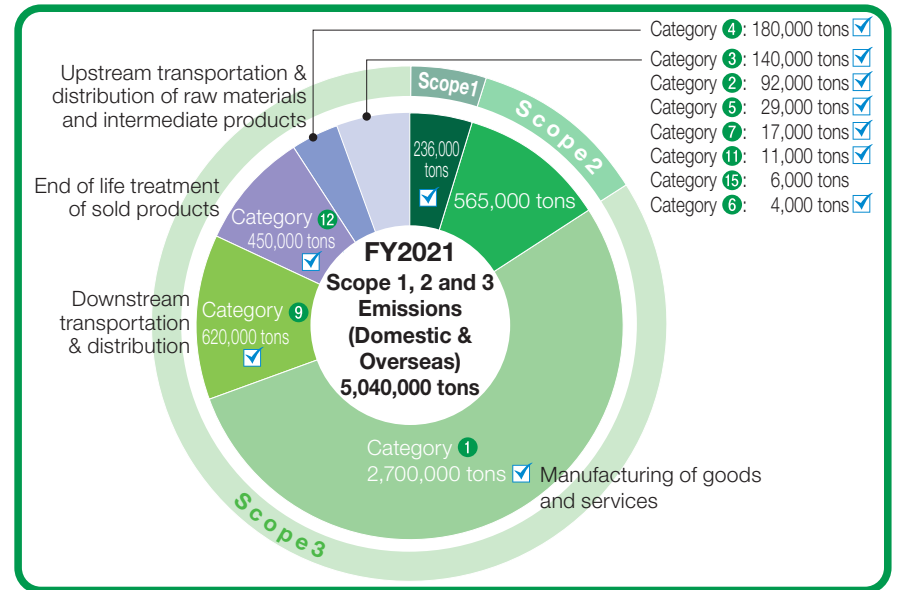
In FY2021, we began to use IDEA Ver. 3.2 as the base for emission intensity and Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables (3EID) for some of the data items.

Scope of calculations

Main DNP business sites in Japan (excluding Hokkaido Coca-Cola Products and the Bookstore Group among others), and key overseas sites (PT DNP Indonesia, DNP Imagingcomm America Corporation, DNP Imagingcomm Asia Sdn. Bhd. and Tien Wah Press (Pte.) Ltd.).



• Scope 3 GHG emissions



Environmental Management Activities—Building a Recycling Society

Resource Recycling

Increasing emissions of plastics and other waste have grown into a serious problem globally. We are seeing a global trend of shifting from one-way economic and social activities to a circular economy, in which resources are used sustainably. At DNP, we are moving forward with the efficient use of resources by working to improve resource productivity, promote the recycling of unwanted materials and take other initiatives, aiming for the realization of a recycling-oriented society, a target we set in the DNP Group Environmental Vision 2050. In FY2021, we revised our medium-term targets and began to use the resource recycling rate as an indicator for the promotion of recycling.

Promoting the Recycling of Undesired Materials (Waste and Valuable Waste)

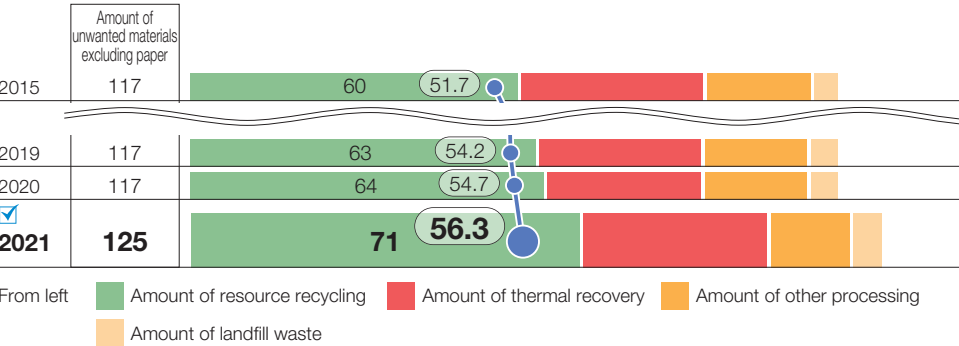
DNP uses plastics as raw materials and emits a substantial volume of waste. In Japan, the largest percentage of this waste goes to thermal recovery.

We therefore promote the recycling of plastic waste in Japan, with the goal of increasing the resource recycling rate. Our specific efforts include: (1) changing product specifications to facilitate resource recycling, such as using a single material (shift to mono-material products); (2) promoting material recycling by segregating waste into more detailed segments, and; (3) collaborating with partner companies to shift to chemical recycling.

*Combustion, recycling into solid fuels, and other processes involving heat recovery are treated as thermal recovery and are therefore not included in recycling (resource recycling).

Amount of undesired materials excluding paper as valuable waste (Unit: 1,000 tons) Bar graph

Resource recycling rate (Unit: %) Line graph



- Resource recycling rate: Amount of resource recycling ÷ Amount of undesired materials excluding paper as valuable waste.
- Amount of resource recycling: Amount of undesired materials excluding paper as valuable waste which have been recycled by means of material recycling or chemical recycling
- Amount of undesired materials excluding paper: Amount of undesired materials (waste + valuable waste) excluding paper as valuable waste, which is 100% recycled, and the amount of sludge subject to on-site intermediate processing
- Amount of thermal recovery: Amount of heat recovered from combustion, waste plastics recycled into solid fuels, waste oil recycled into fuels, etc.

Plastic recycling rate (Japan)

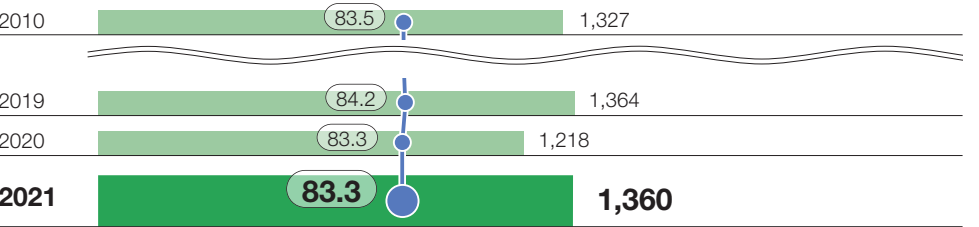
	FY2015	FY2019	FY2020	FY2021
Amount of undesired materials/kt	45	46	45	47
Amount of resource recycling/kt	17	14	14	14
Resource recycling rate	36.9%	31.2%	32.1%	29.2%

Office paper recycling

The business of the DNP Group is closely connected to paper, and we have been separating and collecting paper at our domestic offices for some time. In FY2021, waste paper was collected at 46 offices, primarily large-scale offices, for a recycling rate of 83.3%, exceeding our target of 70%.

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

Used paper collection rate (Unit: %) Line graph



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

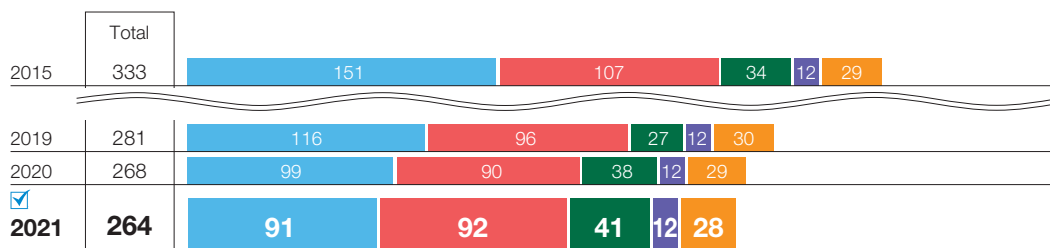
Environmental Management Activities—Building a Recycling Society

Resource Recycling

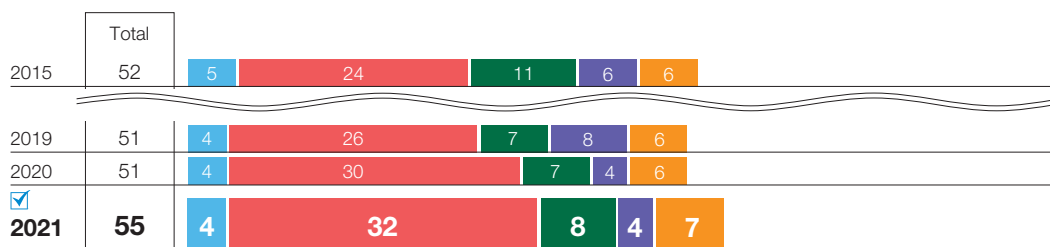
• Resource productivity

We strive to improve resource productivity to control emissions of undesired materials. We endeavor to use the minimum amount of materials for production by minimizing the amount of spare materials between processes in addition to taking measures to improve the efficiency percentage of production processes.

Undesired materials generation (Unit: 1,000 tons)

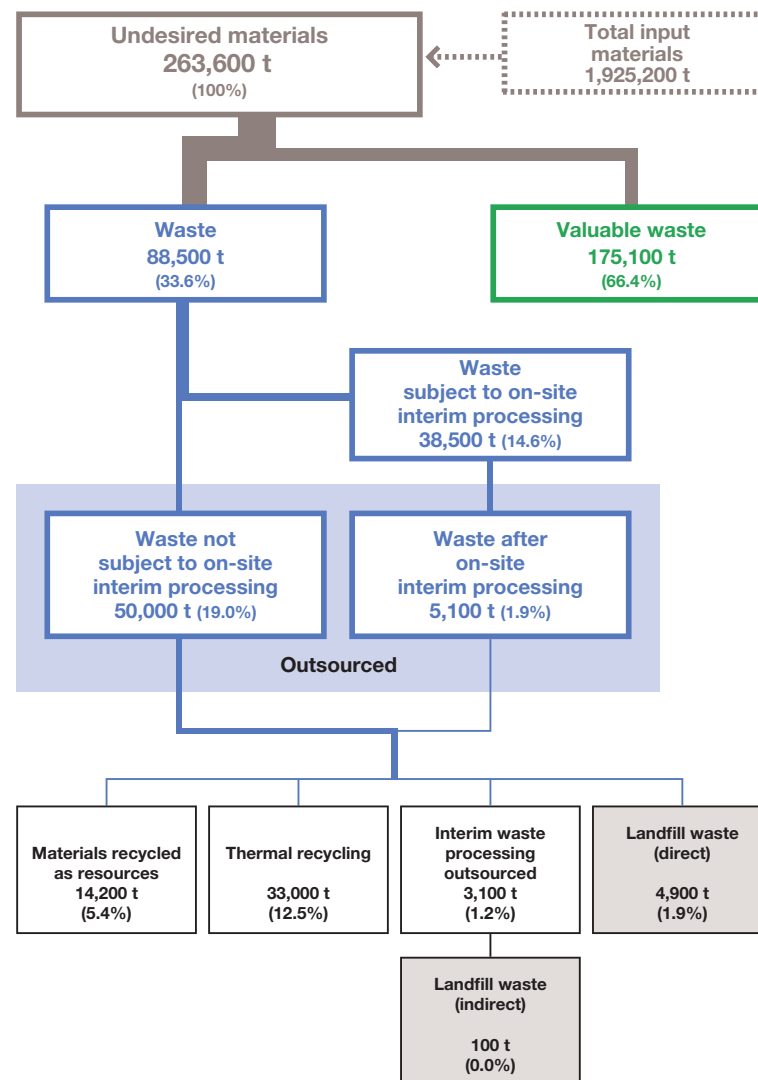


Waste emissions (outsourced) (Unit: 1,000 tons)



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

• Recycling undesired materials



Environmental Management Activities—Building a Recycling Society

Effective Use of Water Resources

The size of the risk to water resources differs by country and region. Therefore, at DNP, we carry out surveys of water risk at our manufacturing sites, including our overseas manufacturing sites. We also implement flooding countermeasures in regions with a high risk of flood damage.

• Reducing volume of water used

The DNP Group strives to reduce its water consumption by conserving water, reducing the amount of water supplied to utility systems and increasing the use of recycled water. In the Electronics and Other segments that require a large amount of water, we are making particular efforts to reduce consumption, such as optimizing the amount of water used in manufacturing processes, refining each process, installing water meters to eliminate loss as well as expanding cascade use of washing water.

Water used FY2021 results: 7,780 [1,000 m³]

We are also making effective use of rainwater in our office buildings and other sites.

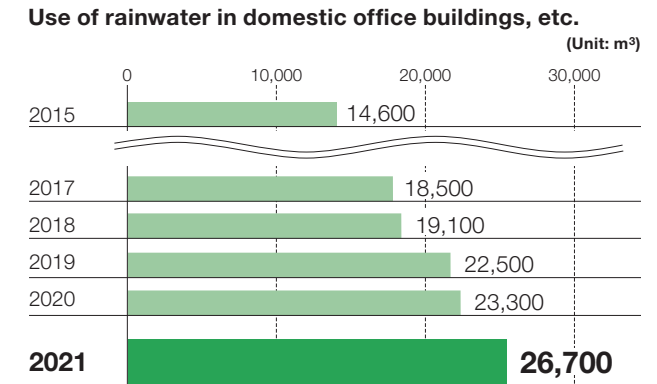
• Use of recycled water

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.

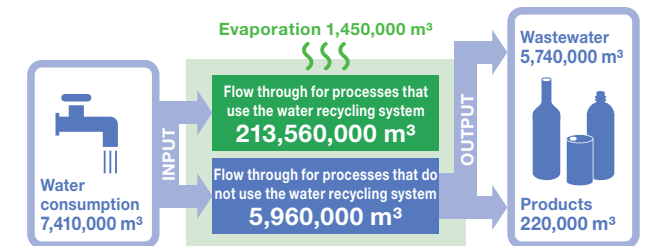
Water use		Unit: 1,000 m³		
Intake source	Area	FY2019	FY2020	FY2021
Surface water (clean water and industrial water)	Japan	4,740	4,340	4,010
	Europe	60	60	60
	North America	70	80	80
	Other Asian countries	440	400	230
	Total	5,310	4,880	4,380
Groundwater	Japan	3,190	3,360	3,400
	Europe	1	1	2
	North America	0	0	0
	Other Asian countries	0	0	0
	Total	3,190	3,360	3,400
River water	Japan	0	0	0
	Europe	0	0	0
	North America	0	0	0
	Other Asian countries	0	0	0
	Total	0	0	0
Seawater	Japan	0	0	0
	Europe	0	0	0
	North America	0	0	0
	Other Asian countries	0	0	0
	Total	0	0	0
Total amount		8,490	8,240	7,780

Wastewater		Unit: 1,000 m³		
Wastewater destination	Area	FY2019	FY2020	FY2021
Public water area	Japan	3,350	2,900	2,690
	Europe	0	0	0
	North America	0	0	0
	Other Asian countries	80	70	50
	Total	3,430	2,970	2,740
Sewerage networks	Japan	2,700	2,870	3,050
	Europe	60	60	60
	North America	70	80	80
	Other Asian countries	360	330	180
	Total	3,190	3,340	3,370
Underground infiltration	Japan	0	0	0
	Europe	0	0	0
	North America	0	0	0
	Other Asian countries	0	0	0
	Total	0	0	0
Total amount		6,610	6,300	6,110

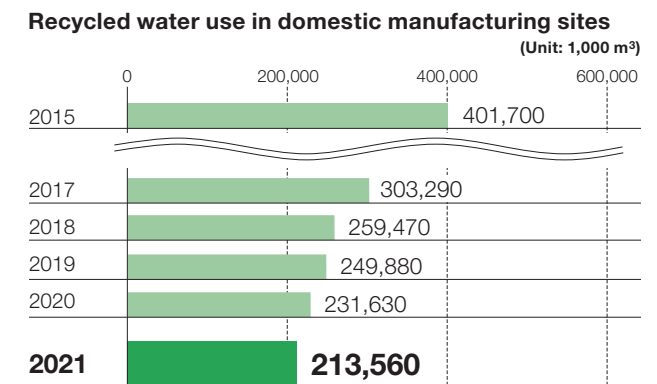
*No discharge to seawater Totals may not match the total of the figures in breakdowns due to rounding.



Water input-output in domestic sites



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



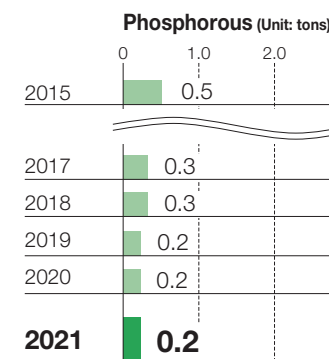
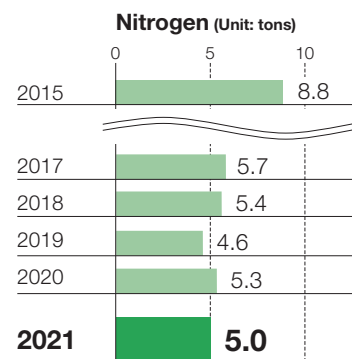
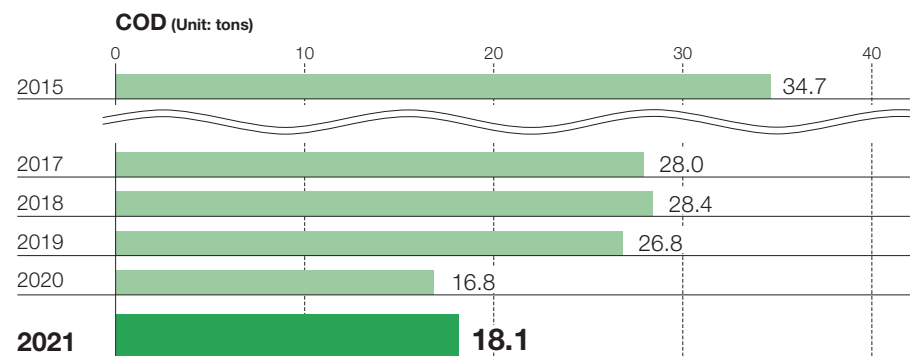
Recycled water: Total volume of water that flows through the heat exchange or cleaning equipment in our closed-cycle system in one year

Environmental Management Activities—For the Reduction of Environmental Pollutants

Reducing Water Pollutants

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 continue to conduct measures, such as changing out the filtration membranes and absorbent materials in wastewater processing equipment, improving wastewater treatment in our kitchens.

Water pollutant emissions



Environmental Management Activities—For the 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 oxides (SOx) and nitrogen oxides (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.

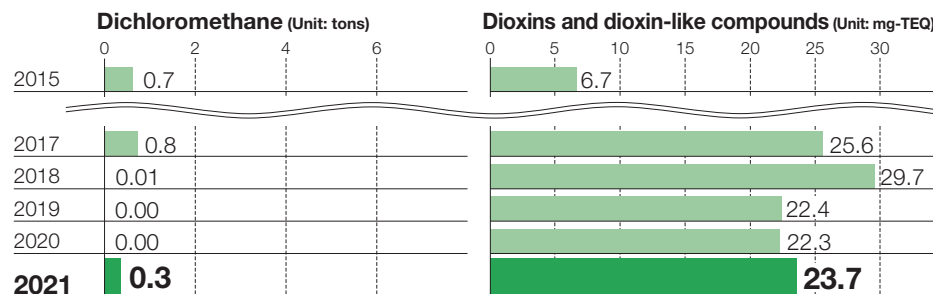
• Reducing VOC emissions

Inks, solvents, adhesives and cleaning solutions used in the printing process contain toluene and other VOCs. 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.

Atmospheric emissions of VOCs (domestic)

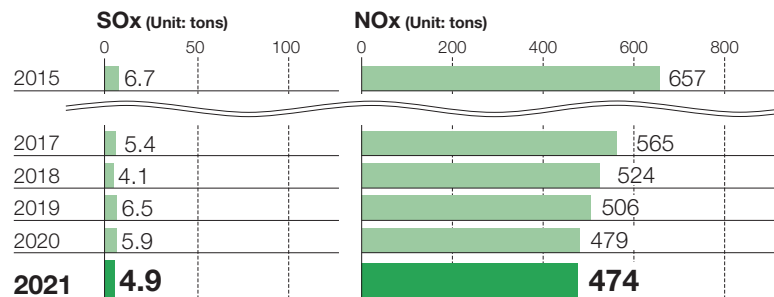
FY2021 results: 3,682 (tons)

Air pollutant emissions



Although dichloromethane was mainly used for washing in the printing process, we have pursued a switchover to substitutes and terminated using dichloromethane for washing in 2013. At present, dichloromethane is used at some sites including our laboratory; however, the discharge concentration is extremely low.

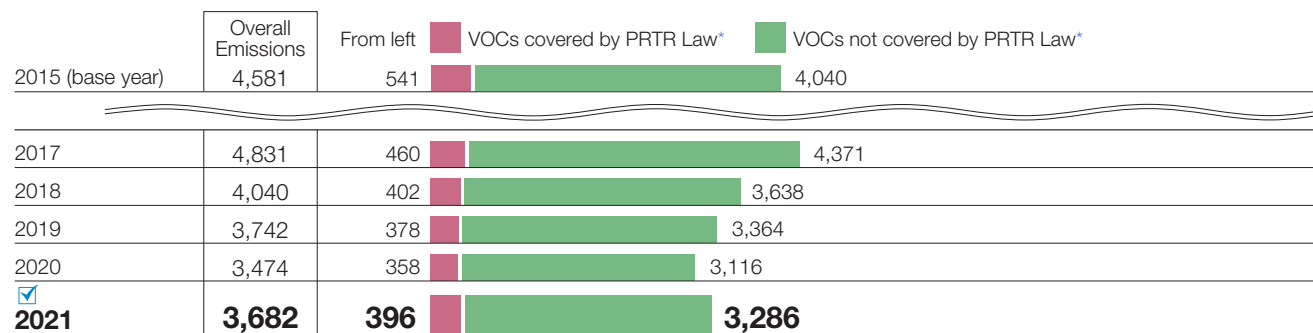
We totally eliminated small furnaces, for which burning control is difficult, and currently have five large-scale furnaces in operation, which are compliant with 2002 regulations.



Sulfur oxide is emitted through burning high-sulfur fuel oil and kerosene.

Nitrogen oxide is emitted when fuel is burned in production processes or when electric power is consumed.

Atmospheric emissions of VOCs (Unit: tons)



*PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Environmental Management Activities—For the Reduction of Environmental Pollutants

Chemical Substances Subject to the PRTR Law

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

Annual amounts of chemical substances handled at each plant above the defined reporting levels set by the PRTR Law are tallied here (amounts listed to 2 significant figures, or to the nearest 0.1 for figures under 1).

Substance	Handled	Consumed	Removed/ consumed	Recycled	To atmosphere	Public waterways	Soil	Sewer	Waste
2-Hydroxyethyl acrylate	4,100	1,800	1,800	–	130	–	–	–	430
Acetonitrile	7,300	–	440	–	73	–	–	–	6,800
2-aminoethanol	43,000	–	–	–	–	–	–	–	43,000
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	9,400	9,400	–	–	–	–	–	–	–
Ethylenediamine	180,000	–	120,000	51,000	2,000	–	–	–	2,200
Ethylenediamine	1,400	680	–	–	–	–	–	–	680
Ferric chloride	4,000,000	860,000	600,000	2,500,000	–	–	–	–	–
Epsilon-caprolactam	5,000	3,700	380	–	52	–	–	–	830
Xylene	180,000	–	120,000	44,000	3,600	–	–	–	19,000
Chromium and chromium (III) compounds	20,000	7,600	–	5,000	–	–	–	1.2	7,500
Hexavalent chromium compounds	8,400	4,300	3,300	–	–	–	–	–	1,200
Inorganic cyanide compounds (except complex salts and cyanate)	4,500	–	400	–	460	–	–	–	3,600
N,N-dimethylformamide	120,000	–	14,000	–	600	–	–	–	110,000
Bromine	3,200	3,200	–	–	–	–	–	–	–
Dioxins and dioxin-like compounds	18	7.0	11	–	24	–	–	–	140
Hexamethylenetetramine	1,500	1,500	–	–	–	–	–	–	–
Water soluble copper salts (except complex salts)	240,000	28,000	19,000	190,000	–	–	–	–	290
Triethylamine	3,700	–	–	–	–	–	–	–	3,700
1,2,4-trimethylbenzene	26,000	–	14,000	11,000	290	–	–	–	–
1,3,5-trimethylbenzene	6,000	–	4,200	1,600	84	–	–	–	100
Toluene	8,600,000	1,500,000	5,300,000	78,000	390,000	–	–	–	1,400,000
Naphthalene	17,000	–	15,000	1,800	85	–	–	–	150
Hexamethylene diacrylate	1,600	1,300	–	–	–	–	–	–	270
Nickel	31,000	20,000	–	11,000	–	–	–	–	–
Nickel compounds	9,400	2,100	–	1,500	–	–	–	–	5,900
Hydrazine	1,500	1,400	–	–	–	–	–	–	76
Biphenyl	1,400	920	–	–	–	–	–	–	450
Hydrogen fluoride and its water soluble salt	1,200	–	1,100	–	–	–	–	–	38
N-hexane	56,000	–	3,300	–	560	–	–	–	52,000
Benzophenone	2,400	2,400	–	–	–	–	–	–	–
Boron compounds	1,400	–	–	–	–	25	–	–	1,300
Polyoxyethylene alkylether*	1,200	1,200	–	–	–	–	–	–	24
Formaldehyde	870	–	–	–	870	–	–	–	–
Manganese and its compounds	3,300	680	–	300	–	–	–	160	2,100
Methacrylic acid	35,000	35,000	–	–	5.2	–	–	–	130
2,3-Epoxypropyl methacrylate	25,000	25,000	–	–	4.1	–	–	–	54
Methacrylic acid n-butyl	3,900	3,900	–	–	–	–	–	–	–
Methyl methacrylate	33,000	33,000	–	–	–	–	–	–	–
Methylenebis(4,1-phenylene) diisocyanate	1,400	1,400	–	–	–	–	–	–	–
Morpholine	73,000	7,100	2,200	–	380	–	–	–	64,000
<input checked="" type="checkbox"/> PRTR-listed substances	13,740,000	2,517,000	6,192,000	2,892,000	395,900	25	–	170	1,740,300

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

Environmental Management Activities—Realizing a Society in Symbiosis with Nature

Biodiversity Conservation

DNP, understands that our business activities impact biodiversity, and we believe that harmonious coexistence with the natural environment is essential for us to continue to grow sustainably as a company. Based on this way of thinking, we formulated the DNP Group Declaration on Biodiversity in March 2010. To realize a society in harmony with nature, we minimize our impact on biodiversity throughout the value chain and work to ensure harmony with regional ecosystems.

We examine our relationship with biodiversity in our business activities, including in product development, the procurement of raw materials, manufacturing, sales, use, and disposal. Our specific initiatives are based on the following important themes: The procurement of raw materials and the creation of greenery areas, both of which depend on ecosystem services and greatly impact biodiversity.

Raw Material Procurement

**• Guidelines for Procurement of Paper for
Printing and Converting**

In August 2012, DNP developed Guidelines for Procurement of Paper for Printing and Covering to maintain sustainable forest resources because in DNP's business activities, the procurement of paper relies heavily on and greatly affects the ecosystem. The guidelines stipulate selection criteria for suppliers and paper. We try to use FSC®-certified paper and ensure the traceability of paper to achieve full conformity with the procurement guidelines.

Creation of greenery areas at business sites

DNP is promoting creation of greenery areas at business sites to establish a connection with the surrounding environment and its creatures. We can prevent the theft of animals and plants, overhunting, and overharvesting in the greenery areas of business sites because entry into them is managed. The greenery areas can contribute significantly to the

preservation of biodiversity with a low risk of supporting the damage caused by invasive species and natural predators. DNP is carrying out community-based biodiversity conservation activities on the premises of our sites, including the preservation of endangered species and the creation of greenery areas in light of regional ecosystems.

Action Taken at Each Business Site

**Hokkaido Coca-Cola Bottling
Forestation at Mt. Shirahata**
Tree planting and nature walks at Mt. Shirahata, the source of water used in our products



**Sapporo Plant,
DNP Technopak**
AMA supporters club

Kamifukuoka Plant, DNP Fine Optronics
Protection of Kohanayasuri on the premises
Protection of the habitat for Kohanayasuri (*Ophioglossum thermale* var. *nipponicum*), which grow naturally on the premises



Kyoto-Minami Plant, DNP Data Techno
Cultivation of plants designated as endangered species by the Kyoto prefectural government
We cultivate no-kanzo (*Hemerocallis fulva* var. *longituba*), iris, and bonaset, which are designated as endangered species by the Kyoto prefectural government. We use a solar-powered rainwater sprinkling system to maintain and manage the plants.



**Kitakami Plant,
DT Fine Electronics**
Protection of rare species on the property

DNP Tohoku
Million-tree project in Miyagi Prefecture

DNP Fine Chemicals Utsunomiya
Elimination of the non-native black locust (*Robinia pseudoacacia*)

**Technology Development Center
Ushiku Plant, DNP Data Techno**
Asaza Project—restoration of the Lake Kasumigaura catchment basin

Technology Development Center
Protection of pine saplings growing naturally on the premises

Research & Development Center
Protection and cultivation of a rare species of fir tree

Kashiwa Plant, DNP Technopak
Afforestation with rare Japanese beech (*Fagus crenata*) trees and Japanese beautyberry (*Callicarpa dichotoma*)

Okayama Plant
Securing a habitat for creatures by creating a Japanese blood grass (*Imperata cylindrica*) grassland

Mihara Plant, DNP Fine Optronics
Protection of the natural habitat of the Ehime ayame (*Iris rossii Baker*)

**Tobata Plant,
DNP High-performance Materials**
Kitakyushu municipal tree-planting project

DNP Shikoku
Shinmachi River Protection Project

Nagoya Area
Trimming reeds in the Shonai River

Nara Plant, DNP Data Techno
Cultivation of a plant designated as an endangered species by the Nara prefectural government
We grow bonaset, which is designated as an endangered species by the Nara Prefectural Government. The leaves of the plant are dried and used for sachets.



**Kawasaki Plant,
DT Fine Electronics**
Raising of Tama River wildlife

Sagami Yoki
Protection and cultivation of the medaka Japanese rice fish (*Oryzias latipes*) in the Sakawa River system

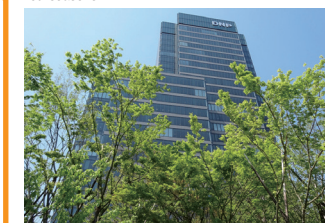
DNP Media Support
Cultivation of mizu-aoi, a rare species
Cultivation of mizu-aoi (*Monochoria korsakowii*), which is designated as an endangered species by the Osaka prefectural government and which previously thrived around the site as a native species



Yokohama Plant, DNP Technopak
Cultivation of No-kanzo (*Hemerocallis fulva* var. *longituba*) on the property
Certified supporter of the Master Plan for the Tsurumi River Basin

**Ichigaya-no-Mori
(The Ichigaya forest)
in Ichigaya, Tokyo**

Continue planning the Ichigaya-no-Mori (The Ichigaya forest) in this part of Tokyo where we are located
Aim: a rich landscape to feel nature and the four seasons



Environmental Activities Data

Environmental Accounting

As an environmental management tool and as a tool for communicating with society, the DNP Group calculates and publicizes its environment-related costs in accordance with the Ministry of the Environment’s *Environmental Accounting Guidelines* (2005 Edition). The scope of calculation covers DNP and its consolidated subsidiaries (more specifically, manufacturing sites, development centers, office buildings and sales offices of manufacturing companies and a distribution company in Japan).

Category	Investment (million yen)		Expense (million yen)		Details of major efforts	Page(s) on which data is listed
	FY2020	FY2021	FY2020	FY2021		
(1) Business area costs						
1) Pollution prevention costs	1,059	200	1,116	1,201	VOC collection and disposal equipment, wastewater treatment facility	18, 28-30
2) Global environmental conservation costs	463	595	308	449	Conversion to inverters, waste heat recovery, switching to energy-saving lighting	18-19, 22-24
3) Resource circulation costs	164	71	1,709	1,992	Furnace improvements, separation recycling, zero emissions (conversion to RPF/cement ingredients), resource recycling	18-19, 25
(Total business area costs)	1,687	866	3,133	3,643		
(2) Up/downstream costs	0	0	127	132	Container and packaging recycling expense burden, recycling system development	20-21
(3) Administration costs	0	0	2,527	2,549	ISO 14001 inspection and registration costs, environmental education costs, environmental report composition costs	10-13, 15-16, 21
(4) R&D costs	0	0	3,464	3,587	Research and development into environmentally conscious products and services and production methods	17, 20
(5) Social activities costs	0	0	13	14	Environmental conservation of areas outside plant compounds, biodiversity conservation, support for activities of environmental conservation groups	31
(6) Environmental remediation	0	0	409	4	Monitoring	14
Total	1,687	866	9,672	9,929		

● Environmental conservation costs to total costs ratio

Category	Consolidated total costs (million yen)	Costs (million yen)	Ratio
Investment of current period (FY2021)	50,600	866	1.71%
R&D cost of current period (FY2021)	33,417	3,587	10.74%

Environmental Activities Data

Environmental Accounting

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

Category of environmental conservation benefit	Category of indicator showing benefit	Indicator values			Remarks	Page(s) on which data is listed
		FY2020	FY2021	Difference		

1) Benefit arising from supplied resources

Total energy input volume	Energy consumption (TJ)	16,100	15,880	-220		17-19, 22-24
	Unit consumption per sales for the above (TJ/billion yen)	12.1	11.8	-0.3	Energy consumed per billion yen of domestic production	17-19, 22-24
Input volume of water	Water usage (1,000 m³)	8,240	7,780	-460		17-19, 27
	Unit consumption per sales for the above (1,000 m³/billion yen)	6.2	5.8	-0.4	Water usage per billion yen of domestic production	17-19, 27
Input volume of main raw materials	Supplied amount (1,000 tons)	1,280	1,940	660		18, 25
	Amount of undesired materials generated/supplied (%)	20.9	13.6	-7.3	Ratio of undesired materials to main raw materials	18, 25

2) Environmental conservation benefit related to waste or environmental impact originating from business activities

Emissions to the air	SOx emissions (tons)	5.9	4.9	-1.0		18, 29
	NOx emissions (tons)	479	474	-5		18, 29
	Environmental pollutant emissions volume (tons)	14,415	14,617	202	VOC emissions	17-19, 29
Water quality	COD discharge (tons)	16.8	18.1	1.3		18, 28
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	0.0	0.0	0.0		30
Waste emission volume	Generated undesired materials (1,000 tons)	268	264	-4	Including undesired materials other than main raw materials	18, 25
	Discharged waste (1,000 tons)	51.5	55.1	3.6		18-19, 25
	Unit consumption per sales for the above (tons/billion yen)	38.6	41.0	2.4	Discharged waste per billion yen of sales	18-19, 25
	Recycle rate (%)	98.3	99.7	1.4	By category: paper (100%), waste plastics (99.1%), metals (100%)	25-26
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	1,457	1,457	0	Total for 28 substances reported	30
Volume of GHG emission	GHG emissions (1,000 t-CO₂)	837	801	-36		17-19, 22
	Unit consumption per sales for the above (tons/billion yen)	630	600	-30	CO₂ emissions per billion yen of sales	17-19, 22

Environmental Activities Data

Environmental Accounting

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

Category of environmental conservation benefit	Category of indicator showing benefit	Indicator values			Remarks	Page(s) on which data is listed
		FY2020	FY2021	Difference		
Benefit related to goods produced by business activities						
CO ₂ emissions after product shipment	CO ₂ emissions (1,000 t-CO ₂)	1,069	1,069	0	Total of part of Category 4, Categories 9, 10, 11 and 12 of Scope 3	20, 24
	CO ₂ emissions / domestic sales (1,000 t-CO ₂ /billion yen)	0.80	0.80	0.00	CO ₂ emissions per billion yen of domestic sales	20, 24

(3) Other environmental conservation benefit

Category of indicator showing benefit	FY2020	FY2021	Difference	Remarks	Page(s) on which data is listed
Benefit related to the environmental impact of transportation					
Energy usage amount during shipment of goods (kl)	16,310	16,440	130	Energy consumption converted to crude oil during transport as a cargo owner	23
Energy usage amount during transport / gross sales (kl/billion yen)	12.2	12.2	0.0	Emissions per billion yen of sales	23

Economic benefits of environmental conservation activities	Amount (million yen)			Remarks	Page(s) on which data is listed
	FY2020	FY2021	Difference		
(1) Increased sales 1) Economic benefit of R&D costs					
Sales of environmentally conscious products and services	87,500	134,800	47,300		17, 20
(2) Increased income 2) Benefit of resource recycling costs					
Income from recycling undesired materials	2,088	2,040	−48	Sale price of waste plastics and waste oil	25

Environmental Activities Data

Results of Efforts

FY1972	Establishes the Environment Department within the head office to promote pollution prevention measures and communication with local residents
FY1990	Makes new efforts to deal with global environmental issues by establishing the Eco-Plan Promotion Office within the Environment Department
FY1992	Establishes the DNP Group Corporate Pledge and Code of Conduct for DNP Group Employees Establishes the Eco-Plan Promotion Targets, the 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 towards comprehensive environmental issues, including product liability
FY1995	DNP wins the International Trade and Industry Minister's Prize in the 4th Grand Prize for the Global Environment Award. (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 Environmental Agency, the Ministry of 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 ISO 14001 certification
FY1998	Mihara Plant, Display Components Operations acquires ISO 14001 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
FY2001	DNP Tokai and Sayama Plant, DNP Technopack acquire ISO 14001 certification
FY2002	DNP Tokai acquires FSC®-COC certification
FY2003	Environmental Report Division receives the 6th Environmental Report Grand Prize for superior reporting 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 7th Environmental Report Prize awarded for excellence Eco-Report System implemented at overseas sites
FY2005	8th Environmental Report Prize / Sustainability Report Prize awarded for excellence
FY2007	PRTR 2007 Awards PRTR Honorable Mention (Tsuruse Plant) DNP Gotanda Building wins the Green Grand Prize in the Shinagawa-ku Green Award System
FY2009	Kanto Bureau of Economy, Trade and Industry Energy Management In Business Superiority Award (received by Akabane Plant, Commercial Printing Operations)
FY2010	DNP IMS Odawara receives the Kanagawa Prefecture Environmental Conservation (Air, Water, Soil) Award Revision of DNP Group Environmental Targets The DNP Emergent Evolution Forest Hakone Training Center 2 acquires Green Key certification

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

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 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 Volume of GHG emissions are announced according to Scope 3 standards
FY2013	Targets for reduction of water usage are set Green Procurement Guidelines for Chemical Substances are set and management of chemical substances in products is strengthened
FY2014	Climate change prevention targets for FY2030 are set DNP is selected by CDP's Forest Program as sector leader in the Industrials & Autos sector DNP wins a Prize of Excellence (Judge's Prize) at the 18th Environmental Communication Awards
FY2015	DNP Group environmental targets are revised CDP places DNP on its "A List" DNP wins a Prize of Excellence (Judge's Prize) at the 19th Environmental Communication Awards
FY2016	DNP wins 26th Grand Prize for the Global Environment Award, Japan Business Federation Chairman's Prize DNP wins a Prize of Excellence (Judge's Prize) at the 20th Environmental Communication Awards DNP wins Biodiversity Action Award Japan 2016
FY2017	Hokkaido Coca-Cola Bottling wins a Special Review Panel Award in the 19th Japan Water Awards Ichigaya-no-Mori (The Ichigaya forest) certified by the ABINC
FY2018	DNP's GHG reduction targets approved by the SBT (Science Based Targets) Initiative Ichigaya-no-Mori (The Ichigaya forest) certified by the SEGES DNP wins a Prize of Excellence (Judge's Prize) at the 22nd Environmental Communication Awards DNP wins 28th Grand Prize for the Global Environment Award, Grand Prize
FY2019	DNP endorses recommendations of Task Force on Climate related Financial Disclosures (TCFD). DNP is included in CDP's CDP Supplier Engagement leaderboard. Ichigaya-no-Mori (The Ichigaya forest) wins Award of Excellence in 2nd ABINC Awards. DNP formulates DNP Group Environmental Vision 2050.
FY2020	DNP is included in CDP's CDP Supplier Engagement leaderboard. DNP wins a Prize of Excellence (Judge's Prize) at the 24th Environmental Communication Awards Ichigaya-no-Mori (The Ichigaya forest) renewed the certifications of SEGES and ABINC
FY2021	Selected as an Environmentally Sustainable Company in the Environmentally Sustainable Companies category of the 3rd ESG Finance Awards Japan On the CDP Supplier Engagement Rating Leaderboard

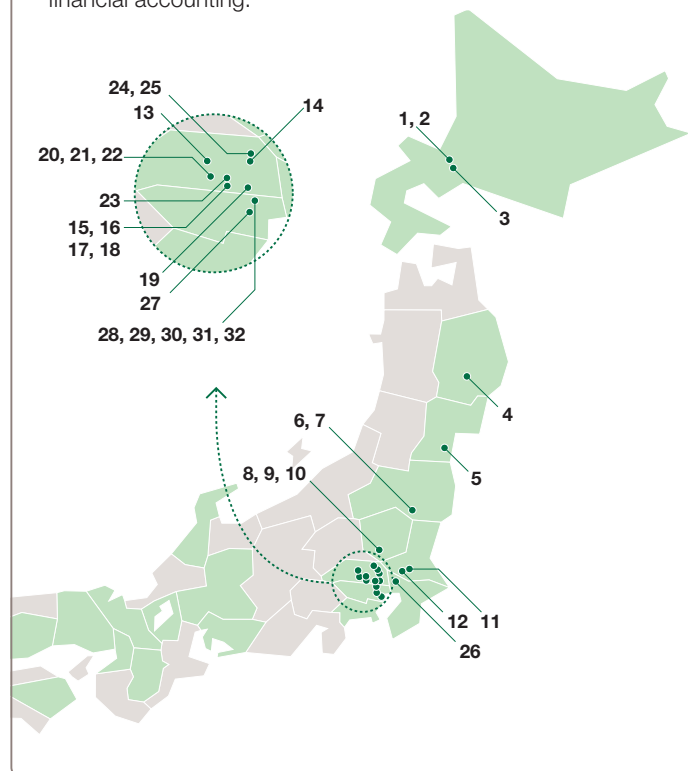
Environmental Activities Data

Manufacturing Sites with Required Business Performance Data Disclosure

Domestic Manufacturing Sites with Required Business Performance Data Disclosure (1)

Organizations and the names used for them are current as of March 31, 2022.

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	

Location	No.	Business segment	Site	Work content
Hokkaido	1	●	Sapporo Plant, DNP Graphica Sapporo Plant, DNP Data Techno	Printing / bookbinding
	2	▲	Sapporo Plant, DNP Technopack	Manufacturing of packaging
	3	□	Sapporo Plant, Hokkaido Coca-Cola Products	Manufacturing of beverages
Iwate	4	■	Kitakami Plant, D.T. Fine Electronics	Manufacturing of electronic precision parts
Miyagi	5	●	Sendai Plant, DNP Graphica	Plate-making / printing / bookbinding
Fukushima	6	▲	Izumizaki Plant, DNP Technopack	Manufacturing of packaging
	7	▲	Izumizaki Plant, DNP High-performance Materials	Manufacturing of solar cell filler
Tochigi	8	●	Utsunomiya Plant, DNP Graphica	Printing / bookbinding
	9	▲	Utsunomiya Plant, DNP Technopack	Manufacturing of packaging
	10	□	DNP Fine Chemicals Utsunomiya	Manufacturing of photographic materials and pharmaceuticals
Ibaraki	11	●	Ushiku Plant, DNP Data Techno	Manufacturing of various types of smart cards
	12	□	Tsukuba Techno Center, DNP Engineering	Manufacturing of printing machines and machine tools
Saitama	13	●	Higashimatsuyama Plant, Oguchi Book Binding & Printing	Bookbinding
	14	●	Shiraoka Plant, DNP Book Factory	Printing / bookbinding
	15	●	Tsuruse Plant, Publishing Innovation Operations	Plate-making / printing plate / printing / bookbinding
	16	▲	Tokyo Plant, DNP Living Space	Plate-making / printing plate / printing / processing
	17	▲	Tsuruse Plant, DNP High-performance Materials	Manufacturing of lithium ion battery outer cover materials
	18	●	Miyoshi Plant, Oguchi Book Binding & Printing	Bookbinding
	19	●	Warabi Plant, DNP Data Techno	Plate-making / printing / processing
	20	▲	Sayama Plant No. 1, DNP Technopack	Manufacturing of packaging
	21	▲	Sayama Plant No. 2, DNP Technopack	Manufacturing of packaging
	22	●	Sayama Plant, DNP Imagingcomm	Manufacturing of thermal transfer carbon ribbons and dye-sublimation transfer materials
	23	■	Kamifukuoka Plant, DNP Fine Optronics	Manufacturing of electronic precision parts
	24	●	Kuki Plant, Publishing Innovation Operations	Printing plate / printing / bookbinding
	25	▲	Kuki Plant, DNP High-performance Materials	Manufacturing of solar cell filler
	26	▲	Kashiwa Plant, DNP Technopack	Manufacturing of packaging
	27	●	Enoki-cho Plant, DNP Graphica	Plate-making / printing / bookbinding
Tokyo	28	●	Kamiya Plant, DNP SP Innovation	Manufacturing of all types of advertising items
	29	●	Kamiya Plant, DNP Book Factory	Bookbinding
	30	□	DNP Logistics	Packaging / shipping
	31	▲	DNP Hoso	Processing filling and packaging
	32	●	Kamiya Plant, DNP Data Techno	Printing / bookbinding / processing

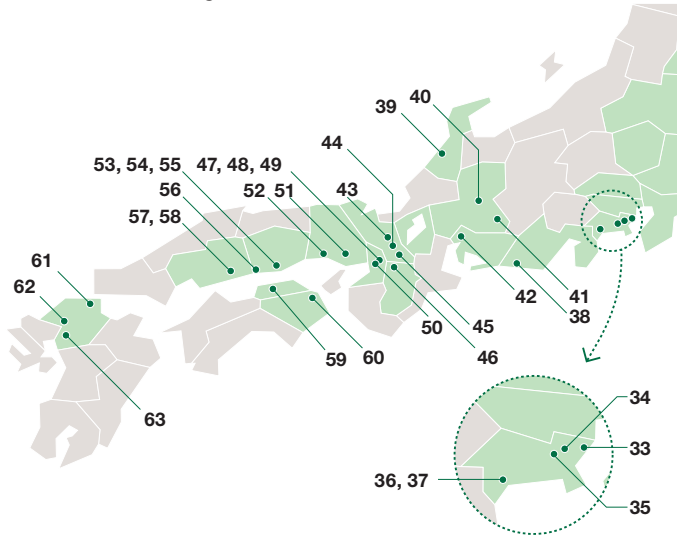
Environmental Activities Data

Manufacturing Sites with Required Business Performance Data Disclosure

Domestic Manufacturing Sites with Required Business Performance Data Disclosure (2)

Organizations and the names used for them are current as of March 31, 2022.

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	



Location		No.	Business segment	Site	Work content
Kanagawa	Kawasaki	33	■	Kawasaki Plant, D.T. Fine Electronics	Manufacturing of electronic precision parts
	Tsuzuki-ku, Yokohama	34	▲	Yokohama Plant, DNP Technopack	Manufacturing of packaging
	Midori-ku, Yokohama	35	□	Tokyo Plant, DNP Fine Chemicals	Manufacturing of chemicals, etc.
	Odawara	36	▲	Sagami Yoki	Manufacturing of laminated tubes
	Aikawa, Aiko	37	▲	Tokyo Plant, DNP Ellio	Printing and processing metal sheets
Shizuoka	Iwata	38	▲	Iwata Plant, DNP Tamura Plastic	Manufacturing of car supplies and various types of plastic products
Ishikawa	Hakusan	39	□	Hokuriku Techno Center, DNP Engineering	Manufacturing of printing machines and machine tools
Gifu	Gero	40	▲	Hagiwara Plant, DNP Tamura Plastic	Manufacturing of car supplies and various types of plastic products
	Nakatsugawa	41	▲	Tokai Plant, DNP Technopack	Manufacturing of packaging
Aichi	Moriyama-ku, Nagoya	42	●	Nagoya Plant, DNP Graphica	Plate-making / printing / bookbinding
Kyoto	Ukyo-ku, Kyoto	43	▲	Kyoto Plant, DNP Technopack	Manufacturing of packaging
	Minami-ku, Kyoto	44	●	Kyoto Plant, DNP Data Techno	Manufacturing of various types of smart cards
	Kyotanabe	45	▲	Tanabe Plant, DNP Technopack	Manufacturing of packaging
Nara	Kawanishi, Shiki	46	●	Nara Plant, DNP Data Techno	Manufacturing of various types of smart cards
Osaka	Neyagawa	47	▲	Neyagawa Plant, DNP Technopack	Manufacturing of packaging
		48	▲	Osaka Plant, DNP Ellio	Printing and processing metal sheets
		49	●	Neyagawa Plant, DNP SP Innovation	Manufacturing of all types of advertising items
	Kadoma	50	●	DNP Media Support	Manufacturing of magnetic cards
Hyogo	Ono	51	●	Ono Plant, DNP Graphica	Printing plate / printing / bookbinding
	Himeji	52	■	DNP Precision Devices Himeji	Manufacturing of electronic precision parts
Okayama	Okayama	53	●	Okayama Plant, DNP Imagingcomm	Manufacturing of dye-sublimation transfer materials
		54	▲	Okayama Plant, DNP Living Space	Plate-making / printing plate / printing / processing
		55	■	Okayama Plant, DNP Fine Optronics	Manufacturing of electronic parts
	Kasaoka	56	□	Kasaoka Plant, DNP Fine Chemicals	Manufacturing of chemicals, etc.
Hiroshima	Mihara	57	■	Mihara East Plant, DNP Fine Optronics	Manufacturing of electronic precision parts
		58	■	Mihara West Plant, DNP Fine Optronics	Manufacturing of electronic parts
Kagawa	Sakaide	59	▲	Sagami Yoki	Manufacturing of laminated tubes / filling
Tokushima	Tokushima	60	□	DNP Shikoku	Plate-making / printing / manufacturing of packaging
Fukuoka	Tobata-ku, Kitakyushu	61	▲	Tobata Plant, DNP High-performance Materials	Manufacturing of solar cell filler
	Minami-ku, Fukuoka	62	●	Fukuoka Plant, DNP Graphica Fukuoka Plant, DNP Data Techno	Plate-making / printing / bookbinding
	Chikugo	63	▲	Chikugo Plant, DNP Technopack	Manufacturing of packaging

Environmental Activities Data

Manufacturing Sites with Required Business Performance Data Disclosure





Overseas Manufacturing Sites with Required Business Performance Data Disclosure**Business segments**

	Information Communication
	Lifestyle and Industrial Supplies
	Electronics

Country	City	No	Business segment	Site	Work content
Italy	Agrate Brianza	①		DNP Photomask Europe S.p.A.	Manufacturing of photomasks
Denmark	Karlsunde	②		DNP Denmark A/S	Manufacturing of projection television screens
Netherlands	Amsterdam	③		DNP Imagingcomm Europe B.V.	Manufacturing of thermal transfer ribbon
USA	Concord, NC	④		DNP Imagingcomm America Corporation	Manufacturing of thermal transfer ribbon
	Pittsburgh, PA	⑤		DNP Imagingcomm America Corporation	Manufacturing of thermal transfer ribbon
Malaysia	Johor Bahru	⑥		DNP Imagingcomm Asia Sdn. Bhd.	Manufacturing of thermal transfer ribbon
Indonesia	Pulo Gadung	⑦		PT DNP Indonesia	Manufacturing of packaging
	Karawang	⑧		PT DNP Indonesia	Manufacturing of packaging
Vietnam	Binh Duong Province	⑨		DNP Vietnam Co., Ltd.	Manufacturing of packaging

①,②,④-⑥ April 2021–March 2022 totals ③,⑦-⑨ January 2021–December 2022 totals

Independent Review Report Comments by an Independent Institution

<div><div></div><div><h2>LRQA Independent Assurance Statement</h2><h3>Relating to DNP Group's Environmental Data within DNP Group Environmental Report 2022 for the fiscal year 2021</h3><p>This Assurance Statement has been prepared for Dai Nippon Printing Co., Ltd.'s in accordance with our contract.</p><p>Terms of engagement</p><p>LRQA Limited ("LRQA") was commissioned by Dai Nippon Printing Co., Ltd. ("the Company") to provide independent assurance on DNP Group's environmental data and information ("the report") within DNP Group Environmental Report 2022 for the fiscal year 2021, that is, 1 April 2021 to 31 March 2022¹, against the assurance criteria below to a limited level of assurance and professional judgement of the verifier using ISAE3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information and ISO14064-3:2019 Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions for GHG emissions.</p><p>Our assurance engagement covered the operations and activities relating the Company and its consolidated subsidiary in Japan and overseas^{2,3,4} and specifically the following requirements:</p><ul style="list-style-type: none">Verifying conformance with the Company's reporting methodologies;Evaluating the accuracy and reliability of data for the selected environmental indicators listed Appendix 1;^{5,6}<p>Our assurance engagement excluded the data and information of the Company's suppliers, contractors and any third-parties mentioned in the report.</p><p>LRQA's responsibility is only to the Company. LRQA disclaims any liability or responsibility to others as explained in the end footnote. The Company's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of the Company.</p><p>LRQA's Opinion</p><p>Based on LRQA's approach nothing has come to our attention that would cause us to believe that the Company has not, in all material respects:</p><ul style="list-style-type: none">Complied with the Company's reporting methodologiesDisclosed accurate and reliable environmental data<p>The opinion expressed is formed on the basis of a limited level of assurance⁷ and at the materiality of the professional judgement of the verifier.</p><p><small>¹ The reporting period for some overseas manufacturing subsidiaries are 1 January 2021 to 31 December 2021. ² The scope is covered Dai Nippon Printing Co., Ltd. and its 23 Manufacturing companies and 1 logistics company. ³ The scope is covered non-manufacturing sites of Dai Nippon Printing Co., Ltd. and domestic subsidiaries (including 3 Development base, office-building, and business offices etc.) ⁴ Overseas 9 manufacturing subsidiaries (DNP Photomask Europe S.p.A., DNP Denmark A/S, DNP Imagingcomm Europe B.V., DNP Imagingcomm America Corporation (Cincinnati), DNP Imagingcomm America Corporation (Pittsburgh), DNP Imagingcomm Asia Sdn. Bhd., PT DNP Indonesia (Karawang), PT DNP Indonesia (Pulogadung), DNP Vietnam Co., Ltd.) ⁵ LRQA undertook a limited assurance engagement of the environmental data marked with "✓" within DNP Group Environmental Report 2022. And see Appendix 1 for detailed information on the data covered by this Independent Assurance Statement. ⁶ When the breakdown data for each department is listed in DNP Group Environmental Report 2022, the data is also assured. ⁷ The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.</small></p><p>Page 1 of 3</p></div></div>	<div><div></div><div><p>LRQA's approach</p><p>LRQA's assurance engagements are carried out in accordance with ISAE3000 (Revised) and ISO14064-3:2019 for GHG emissions. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:</p><ul style="list-style-type: none">Auditing the Company's data management systems to confirm that there were no significant errors, omissions or misstatements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification.Interviewing with those key people responsible for compiling the data and drafting the report.Sampling datasets and traced activity data back to aggregated levels;Verifying the historical environmental data and records for the fiscal year 2021; andVisiting Tokyo Plant of DNP Living Space Co., Ltd. to confirm the data collection processes, record management practices.By implementing the Company's "No Visitor" Policy due to the global infection spread of COVID-19, conducting the remote verification to Izumizaki Plant of DNP Technopack Co., Ltd. for confirming the effectiveness of its data management systems via emails and Microsoft Teams.<p>Observations</p><p>It is recommended the Company will continue to maintain the high-level data management systems and discover further improvement opportunities proactively to ensure accurate aggregation and calculation of environmental data.</p><p>LRQA's standards, competence and independence</p><p>LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition and ISO/IEC 17021-1 Conformity assessment - Requirements for bodies providing audit and certification of management systems - Part1: Requirements that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.</p><p>LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.</p><p>LRQA is the certification body of ISO9001 and ISO14001 for the DNP Elio Co., Ltd. which is the consolidated subsidiary of the Company and as such does not compromise our independence or impartiality.</p><p>Signed  Dated: 22 March 2023</p><p>Kazuyori Yukinaka LRQA Lead Verifier On behalf of LRQA Limited 10th Floor, Queen's Tower A, 2-3-1 Minatomirai, Nishi-ku, Yokohama, JAPAN LRQA reference: YKA00000845</p><p><small>LRQA, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as "LRQA". LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract. The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages. This Assurance Statement is only valid when published with the report to which it refers. It may only be reproduced in its entirety. Copyright © LRQA, 2022.</small></p><p>Page 2 of 3</p></div></div>	<div><div></div><div><p>Appendix 1: The Scope of Work</p><p>LRQA undertook a limited assurance engagement of the environmental data listed below within the Environmental Report 2022. (The number of pages on the left side of this table below is the page published in the Environmental Report 2022.)</p><table><tr><td>P.17</td><td>GHG emissions⁸</td></tr><tr><td></td><td>Fuel use for transport per amount of sales</td></tr><tr><td></td><td>Emissions of VOCs (except for methane)</td></tr><tr><td></td><td>Resource recycling rate</td></tr><tr><td></td><td>Landfill waste rate</td></tr><tr><td></td><td>Water use per amount of sales (includes overseas location)</td></tr><tr><td></td><td>Percentage of super-eco products sales</td></tr><tr><td>P.18-19</td><td>Main raw materials consumption (Paper, Film, Plastic, Metal, Ink, and Others)</td></tr><tr><td></td><td>Solvent use⁹</td></tr><tr><td></td><td>Acid and alkaline use⁹</td></tr><tr><td></td><td>Energy consumption (Electricity, City gas, LNG, LPG, Fuel oil, Steam, and Kerosene)</td></tr><tr><td></td><td>Water use</td></tr><tr><td></td><td>GHG emissions^{8,10}</td></tr><tr><td></td><td>Atmospheric emissions of VOCs</td></tr><tr><td></td><td>Water discharged</td></tr><tr><td></td><td>Undesired materials</td></tr><tr><td></td><td>Waste emissions</td></tr><tr><td></td><td>Landfill waste amount</td></tr><tr><td>P.20</td><td>Sales of super-eco products (including the breakdown of the sales amount of the department)</td></tr><tr><td></td><td>Percentage of super-eco products sales</td></tr><tr><td>P.22</td><td>Scope 1 and Scope 2 GHG emissions^{8,10} (including the breakdown of Scope 1 and Scope 2 (Market-based))</td></tr><tr><td></td><td>Domestic fuel composition</td></tr><tr><td>P.23</td><td>Fuel use for transport</td></tr><tr><td></td><td>Fuel use for transport per amount of sales</td></tr><tr><td></td><td>Power consumption at major offices</td></tr><tr><td>P.24</td><td>Scope1, Scope2, Scope 3 GHG emissions^{8,10} (Categories 1,2,3,4,5,6,7,9,11, and 12)</td></tr><tr><td>P.25-26</td><td>Undesired materials (including the breakdown data for each department)</td></tr><tr><td></td><td>Waste emissions (including the breakdown data for each department)</td></tr><tr><td></td><td>Amount of resource recycling, Amount of waste (waste + valuable waste) excluding paper valuable waste, Resource recycling rate,</td></tr><tr><td>P.27</td><td>Water use</td></tr><tr><td>P.29</td><td>Atmospheric emissions of VOCs (includes the breakdown of PRTR and non-PRTR VOCs)</td></tr><tr><td>P.30</td><td>Chemical Substances Subject to the PRTR Law (includes the breakdown of Release and Transfer amount)</td></tr></table><p>Verification period</p><ul style="list-style-type: none">Fiscal year 2021 (1 April 2021 to 31 March 2022)Some overseas plants collect and aggregate the environmental data in the calendar year 2021 (1 January 2021 to 31 December 2021).<p><small>⁸ GHG quantification is subject to inherent uncertainty. ⁹ The scope is covered Dai Nippon Printing Co., Ltd. and its domestic consolidated subsidiaries. ¹⁰ Regarding Scope3 GHG emissions, the scope is covered major domestic sites (excluding Hokkaido Coca-Cola Products and the subsidiaries book stores etc.) and major overseas sites (PT DNP Indonesia, DNP Imagingcomm America Corporation, and DNP Imagingcomm Asia Sdn Bhd. GHG emissions from the Company's own logistics transportation should be partially categorized as Scope 1, but due to difficulties in separating it out, all GHG emissions are calculated as Category 4 of Scope 3.</small></p><p>Page 3 of 3</p></div></div>	P.17	GHG emissions ⁸		Fuel use for transport per amount of sales		Emissions of VOCs (except for methane)		Resource recycling rate		Landfill waste rate		Water use per amount of sales (includes overseas location)		Percentage of super-eco products sales	P.18-19	Main raw materials consumption (Paper, Film, Plastic, Metal, Ink, and Others)		Solvent use ⁹		Acid and alkaline use ⁹		Energy consumption (Electricity, City gas, LNG, LPG, Fuel oil, Steam, and Kerosene)		Water use		GHG emissions ^{8,10}		Atmospheric emissions of VOCs		Water discharged		Undesired materials		Waste emissions		Landfill waste amount	P.20	Sales of super-eco products (including the breakdown of the sales amount of the department)		Percentage of super-eco products sales	P.22	Scope 1 and Scope 2 GHG emissions ^{8,10} (including the breakdown of Scope 1 and Scope 2 (Market-based))		Domestic fuel composition	P.23	Fuel use for transport		Fuel use for transport per amount of sales		Power consumption at major offices	P.24	Scope1, Scope2, Scope 3 GHG emissions ^{8,10} (Categories 1,2,3,4,5,6,7,9,11, and 12)	P.25-26	Undesired materials (including the breakdown data for each department)		Waste emissions (including the breakdown data for each department)		Amount of resource recycling, Amount of waste (waste + valuable waste) excluding paper valuable waste, Resource recycling rate,	P.27	Water use	P.29	Atmospheric emissions of VOCs (includes the breakdown of PRTR and non-PRTR VOCs)	P.30	Chemical Substances Subject to the PRTR Law (includes the breakdown of Release and Transfer amount)
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P.29	Atmospheric emissions of VOCs (includes the breakdown of PRTR and non-PRTR VOCs)																																																																	
P.30	Chemical Substances Subject to the PRTR Law (includes the breakdown of Release and Transfer amount)																																																																	

[April 2023] Independent Review Report Comments by an Independent Institution has been updated to reflect the data correction on p. 18.

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The logo for Dai Nippon Printing Co., Ltd. (DNP) is displayed in a bold, blue, sans-serif font. The letters 'DNP' are closely spaced and have a clean, modern appearance.