

DNP



DNP Group Environmental Report 2023

DNP Group Environmental Report 2023

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Editorial Policy

- The *DNP Group Environmental Report 2023* 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 2023* 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, 2022 to March 31, 2023. 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, 2022 to December 31, 2022.

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 22 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.

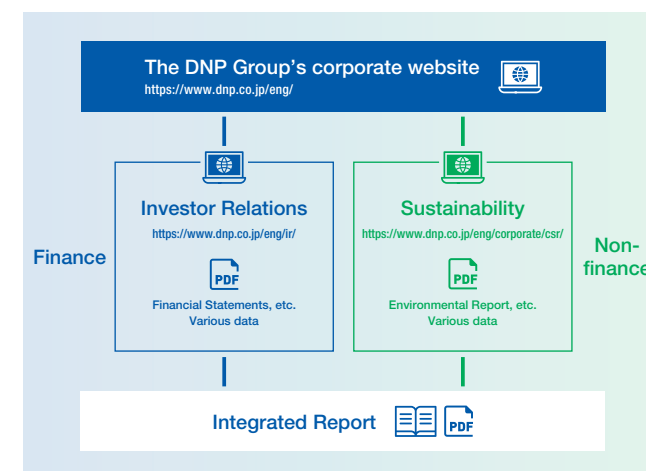
<https://www.dnp.co.jp/eng/corporate/csr/report/>

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

Issued

October 2023 (Next scheduled issue: October 2024)

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 iris japonica blooming in the green space.

Corporate Profile (As of March 31, 2023)

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





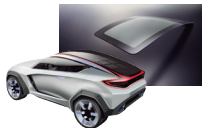


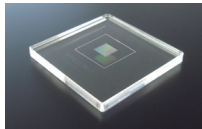


Paid-in Capital: ¥114,464 million

Number of Employees: 36,246 (Consolidated); 10,107 (Non-consolidated)

Financial Data: (FY ended March 2023)
Consolidated Net Sales ¥1,373.2 billion (up 2.2% year-on-year)
Consolidated Operating Income ¥61.2 billion (down 8.3% year-on-year)
Consolidated Ordinary Income ¥83.7 billion (up 3.0% year-on-year)
Net income attributable to shareholders of the parent ¥85.7 billion

Business segments:

Percentage of total sales

Printing	Information Communication Books and magazines, commercial printing, smart cards, network businesses, imaging communication, etc.	52 %	 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.	29 %	 Environmentally conscious packaging	 Curved resin glazing	 Exterior materials for buildings
	Electronics Display components, electronic devices, optical films, etc.	15 %	 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.	4 %	 Beverages		

Message from the President about Environmental Initiatives

President
Yoshinari Kitajima



DNP Group is constantly thinking about coexistence between our business activities and the global environment, and has included “Environmental conservation and realization of a sustainable society” in its Code of Conduct. In 1972, the Group established a department dedicated to environmental issues. Since then, we have been committed to environmental initiatives while staying up to date with domestic and global changes and staying ahead of the times.

In recent years, deep concerns have emerged over the sustainability of the Earth itself. The risks (variable factors) have become increasingly diverse and widespread, and may affect business management, including risks with potential impacts on society and the economy, based on which businesses activities are established. Against this backdrop, we are evaluating environmental, social and economic risks from a long-term perspective and striving to identify the business opportunities in these risks.

In March 2020, we adopted DNP Group Environmental Vision 2050, our vision for what we want to be by 2050 to achieve a sustainable society and accelerated specific activities to build a decarbonized, recycling-oriented society in harmony with nature. In April 2022, the Sustainability Committee was reorganized

into an organization that manages medium- and long-term risks to capitalize on business opportunities and ensure that our business strategy reflects these aspects. The committee is chaired by the president, a senior managing director is its vice-chairperson and the other members of the committee are directors and corporate officers in charge of different divisions of the Company. We will create value and strengthen our management base that supports value creation to intensify our environmental initiatives.

More specifically, to establish a decarbonized society, we are working to reduce greenhouse the gas (GHG) emissions resulting from the business activities at our sites to net zero by 2050. In addition to enhancing our existing energy-saving activities and introducing renewable energy, we are transforming our business portfolio to be low environmental impact and high added value. We are also identifying new environmental themes and pushing forward with the development of low-carbon products and services.

To realize a recycling-oriented society, we are pushing forward with the efficient use of plastics and other resources with the goal of increasing the resource recycling rate, which is the ratio of material recycling and chemical recycling to waste that we discharge. We are also focusing our efforts on the

more sustainable use of plastic products and the development of products which use alternative materials such as biomass and recycled materials.

To establish a society that is in harmony with nature, we are implementing initiatives including the procurement of raw materials in consideration of biodiversity and the creation of green spaces in consideration of local ecosystems. In the procurement of paper, which relies heavily on and greatly affects the ecosystem, 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 FY2022 and future initiatives

DNP is committed to reducing the environmental impact in terms of seven items (see page 17). In FY2022, we achieved our annual targets for all of these items. In particular, our progress in reducing GHG emissions and raising the resource recycling rate has far surpassed the plan.

To achieve the 2030 target for the reduction of GHG emissions early, we will strengthen energy-saving activities and accelerate the introduction of renewable energy. Meanwhile, we will stay committed to the development and provision of products and services that contribute to the reduction of emissions throughout supply chains.

To increase the resource recycling rate, we will advance initiatives such as inter-business cooperation and the development of new recycling technologies so that 65% of all waste, including 50% of plastic waste, can be recycled by 2030.

Harmony between our business activities and the global environment remains a prerequisite as DNP continues to work to create the value that people and society want while reducing environmental impact throughout supply chains.

DNP Group Environmental Policy

The DNP Group's Corporate Philosophy states that it will connect individuals and society and provide new value. All activities to this end must comply with the DNP Group Code of Conduct whose tenets include "environmental conservation and the realization of a sustainable society." 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 activities will be accelerated.

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 set medium-term targets for the achievement of a decarbonized, recycling-oriented society in harmony with nature as set forth in the DNP Group Environmental Vision 2050.

In relation to the GHG emissions reduction targets to be achieved by 2030, following DNP's acquisition of SBT certification for the 2°C standard in 2018, we focused on emissions reduction enabling us to expect that we will achieve the targets before the planned deadline. Accordingly, we revised our targets upward in March 2021, enabling us to receive the well-below 2°C standard designation in April 2021. Our SBT certification has been renewed accordingly.

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

Measures		Medium-term targets		Our aspiration
Backcasting				
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
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
Increasing the resource recycling rate	<ul style="list-style-type: none">• Minimization of undesired materials• Promotion of recycling• Minimization of the landfill waste rate	Improve the resource recycling ratio 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.		Society in symbiosis with nature
Reduction of VOC emissions	<ul style="list-style-type: none">• Maintenance and management of odor reduction equipment	Maintain the FY2015 level.		
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.		

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]

- 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]

- 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]

- We aim to minimize the impact on biodiversity throughout the entire value chain and achieve harmony with regional ecosystems.

*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.

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*2 Environmental conservation items: Air, wastewater, odor, noise and vibration

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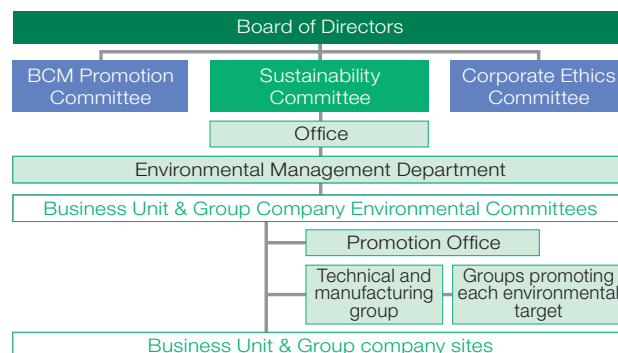
- We aim to minimize the impact on biodiversity throughout the entire value chain and achieve harmony with regional ecosystems.

Efforts Related to Climate Change

• Governance → Related pages: 10–11

DNP regards addressing environmental issues—including climate change—as one of its key management challenges. In April 2022, DNP reorganized the Sustainability Committee headed by the president in order to enhance environmental, social and economic sustainability and further drive DNP's sustainable growth and enhanced functionality. By coordinating with the BCM Promotion Committee, which ensures the safety of employees and maintains production activities in the event of a natural disaster or other emergency, and the Corporate Ethics Committee, which seeks to raise employees' compliance awareness and reduce risks, the Sustainability Committee has established a flexible and robust governance system that covers company-wide risks.

The Sustainability Committee meets regularly, four times a year, and at other times as necessary for the purposes of managing medium to long-term management risks relating to sustainability, identifying business opportunities and reflecting them in management strategies; and delivers reports and makes recommendations to the Board of Directors. The Board of Directors receives reports and recommendations on matters discussed and resolved by the Sustainability Committee, and deliberates and supervises policies and action plans, etc., for responding to risks and opportunities relating to sustainability. Strategies and policies on environmental issues determined by the Committee are addressed by the DNP Group as a whole, in coordination with the Business Unit & Group Company Environmental Committees.



*For details of analysis using the TCFD framework:
DNP Group Integrated Report 2023 (pages 57–60)

• Risk management

DNP engages in integrated risk management to minimize the negative impact of variable factors (risks) and expand business opportunities based on a flexible and resilient governance system.

Environmental, social and economic risks and opportunities are identified, evaluated and managed by the Sustainability Committee at least once a year. We prioritize activities and set targets based on factors such as business plans, financial impact, stakeholder concerns, impact on the environment and society and likelihood of occurrence, and reflect them in our management strategies. For risks with a particularly high level of importance or priority, we select a risk management department and reflect the risks in business strategies and plans after discussions by the Management Committee, with each organizational unit playing a central role in responding to them. For opportunities, we manage priority themes throughout DNP and link them to strategic business development.

• Strategy

DNP utilizes multiple scenarios* published by international institutions to identify risks caused by climate change and consider strategies for addressing risks in its business activities. We use these scenarios to evaluate and analyze qualitative and quantitative financial impact and the periods of time during which we will be affected. Climate change-related risks include transition risks associated with transitioning toward a decarbonized society, such as the tightening of regulations and increased demand for low-carbon technologies (1.5°C scenario) and changes associated with physical impacts resulting from rising temperatures (4°C scenario). Based on the results of its scenario analyses, DNP will respond flexibly and strategically to foreseeable climate risks and increase the resilience of its business activities for all scenarios in the medium to long term.

[Response to transition risks and opportunities]

Transition risks include the likelihood of the increase in the use of renewable energy, the introduction of emissions trading (cap and trade) and the introduction of a carbon tax, etc., due to the tightening of GHG emissions regulations. We expect this to increase operating costs. In response to this, DNP is transforming its business portfolio based on environmental impact and added value. Under the DNP Group Environmental Vision 2050, we are striving to achieve net-zero GHG emissions from business activities at our establishments by 2050. We have set medium-term targets for 2030 and are improving our energy conservation activities, replacing existing equipment with higher-efficiency equipment using internal carbon pricing and systematically introducing renewable energy.

Meanwhile, we expect that demand and market for low-carbon products and services will continue to grow, requiring the accelerated shift to and development of low-carbon technologies. In response to such changes, DNP is working to create value by enhancing its alliances with numerous external partners by leveraging its strengths in P&I (Printing and Information). Specifically, we have set the Mobility and Industrial High-performance Materials businesses as focus businesses under our Medium-term Management Plan, in view of their profitability and market growth potential. In addition to products that contribute to the creation of a decarbonized society, such as clean energy-related materials, components and products such as battery pouches for lithium-ion batteries, we also expect to see business growth in security solutions for the sharing economy. We are also driving sales of environmentally friendly packaging, which offers both environmental conservation and convenience, and rolling out a certified system to calculate life cycle CO₂, which contributes to decarbonization across the entire supply chain by calculating CO₂ emissions throughout the entire lifecycle of our products and services. To strengthen these businesses, we are intensively investing management resources and implementing strategic investments.

[Response to physical risks and opportunities]

Physical risks in the short term are assumed to be frequent and aggravated damage from torrential rains, which may cause suspension of operations and disrupt the supply chain, etc. In the medium and long term, we anticipate an increase in costs and the interruption of operations, etc., caused by a rise in average temperatures and a change in demand for water. In preparation for these risks, we have organized a system for managing business continuity. More specifically, for the past several years, we have been implementing disaster control measures such as raising outdoor facilities and installing water control barriers. We have also been working to enhance our supply chain management by building production systems at multiple plants, diversifying suppliers, etc.

On the other hand, demand for products and services that adapt to the effects of rising temperatures is also expected to increase. For example, we will work to expand our range of products and services utilizing our proprietary converting technologies, such as lighting film, which maintains a comfortable space by efficiently incorporating sunlight into indoor spaces, and a multifunctional insulation box that supports logistics operations at low temperatures and constant temperatures. We will also expand the use of functional films, such as by supplying flexible LED sheet, an LED lighting solution that contributes to improving productivity in growing agricultural products for plant factories, which are less affected by wind and flood damage.

* The scenarios include the Net Zero Emissions by 2050 Scenario based on the International Energy Agency (IEA) World Energy Outlook and the SSP5-8.5 Scenario based on the sixth assessment report of the Intergovernmental Panel on Climate Change (IPCC).

Efforts Related to Climate Change

Climate change-related risks

Type		Risks related to climate		Impact on financial affairs, etc. of DNP								
				Negative		Period of impact	Level of impact	Likelihood	Positive		Period of impact	Level of impact
Transition	Policies, laws and regulations	Tightening GHG emissions regulations	Obligation to rise emission reduction targets	<ul style="list-style-type: none">Increased capital expenditures accompanying efforts to encourage energy saving<ul style="list-style-type: none">Systematic capital expenditures based on internal carbon pricing (ICP)	Medium term	Medium	High	-	-	-	-	
			Mandatory introduction of renewable energy	<ul style="list-style-type: none">Increased capital expenditures for the introduction of renewable energyIncreased expenses for purchasing Non-Fossil Certificate<ul style="list-style-type: none">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/yearIncrease in expenses for purchasing emissions rights<ul style="list-style-type: none">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	Medium term	Low	High	<ul style="list-style-type: none">Growth of sales of products related to solar power generationThe promotion of development for the use of next-generation fuels such as hydrogen and ammonia	Short to medium term	Medium	High	
			Introduction of an emissions trading system	<ul style="list-style-type: none">Increase in expenses for purchasing emissions rights<ul style="list-style-type: none">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	Medium term	Low	Medium	<ul style="list-style-type: none">Gain on sale of emissions rights due to reduction of emissionsAppealing to a proactive corporate stance toward reducing emissions	Medium term	Low	Medium	
			Introduction of a carbon tax	<ul style="list-style-type: none">Increase in operating cost due to imposition of a carbon tax on GHG emissions<ul style="list-style-type: none">Estimate for expenses as of 2030, assuming 140 US dollars/t-CO₂ of carbon tax using the scenario of the International Energy Agency (IEA): Approx. 8.4 billion yen/year	Long term	Medium - High	Low	-	-	-		
			Acceleration of the carbon neutrality of the supply chain	<ul style="list-style-type: none">Increased demand from major clients, etc., for the reduction of emissionsBusiness contracts impactedSuppliers passing on the prices of raw materials	Short to medium term	Medium - High	High	<ul style="list-style-type: none">Secure an advantage by calculating CO₂ emissions from products' entire lifecycle, developing the calculation business	Medium term	Medium	High	
			Toughening of emissions reporting obligations	<ul style="list-style-type: none">Tougher rules on accurate tracking of emissionsIncrease in media for disclosing emissions data	Short term	-	High	-	-	-		
	Technology	Shift to low-carbon technologies	Accelerating technological innovation to achieve carbon neutrality	<ul style="list-style-type: none">Increased investment in the development of new technologiesLoss of markets due to delays in development and decreased profit	Medium term	Medium - High	Medium	<ul style="list-style-type: none">Increased market share through early development of low-carbon productsThe promotion of development for the use of next-generation fuels such as hydrogen and ammoniaIncreased demand due to the widespread popularization of EVs (battery pouches for lithium-ion batteries, mobility-related materials and films for use as coating alternatives, etc.)<ul style="list-style-type: none">Aim for 100 billion yen in overall sales of battery pouches for lithium-ion batteries by 2025Widespread adoption of low-carbon product technologies accompanying growing demand for semiconductors (nanoprint lithography)	Short to medium term	High	High	
				Market/evaluation	Changes in customer behavior	Reduction in products and services that are not low-carbon or environmentally conscious	<ul style="list-style-type: none">Loss of market and decrease in revenue due to a lack of carbon reductionAcceleration of the shift to non-petrochemical products, a negative impression of plastic products penetrates marketsGrowing demand for the replacement of non-environmentally conscious materials with alternative materials	Medium term	High	Medium	<ul style="list-style-type: none">Promotion of the development of and the growing market for low-carbon products and services<ul style="list-style-type: none">Aim for 10% percentage of gross sales from sales of super eco products by FY2025Enable the market for recycled materials, biomass materials and paper, etc., to grow as replacements for existing plastic productsSecure an advantage by calculating CO₂ emissions from products entire lifecycle	Short to medium term
	Market/evaluation	Increase in concerns of stakeholders	Worsening of the corporate image, a decline in stock price and exclusion from investments				<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 transactionsOutflow of human resources and an increase in hiring costs	Short to medium term	Medium	Medium	<ul style="list-style-type: none">Increased information disclosure and improvement of engagementsSecure advantages and human resources as a company leading the way in sustainability	Medium term

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

Type		Risks related to climate		Impact on financial affairs, etc. of DNP								
				Negative			Period of impact	Level of impact	Likelihood	Positive		
Physical impact	Urgency	Increase in wind and flood damage from heavy rainfall, flooding, etc.	Suspension of operations in the event of a disaster	<ul style="list-style-type: none">Decreased revenue due to delayed manufacturingIncreased cost of disaster control measures Disaster control measures for production facilities and bases, development of production systems in multiple locations, etc.	Short term	Medium	High	-	-	-		
			Disruption of supply chains	<ul style="list-style-type: none">Decreased revenue due to delayed manufacturing and shippingIncreased cost of purchasing raw materials and interruption of supply	Short term	Medium	High	-	-	-		
	Chronic	Increase in temperature and long-term heat waves	Hindrance to operations due to average temperature increases	<ul style="list-style-type: none">Decreased revenue due to delayed manufacturing	Medium term	Medium	High	<ul style="list-style-type: none">Increase in demand for products utilizing functional films to control light and temperatureIncrease in demand for products (such as flexible LED sheet) that contribute to the safe and stable supply of food by avoiding external impacts	Short to medium term	Medium	High	
			Increase in costs due to growing demand for cooling	<ul style="list-style-type: none">Increased energy expensesIncreased capital expenditures	Medium term	Medium	High					
		Water-related risks in river basins	Suspension of operations in locations susceptible to flooding such as river basins	<ul style="list-style-type: none">Decreased revenue due to delayed manufacturingIncreased cost of disaster control measures Disaster control measures for production facilities and bases, development of production systems in multiple locations, etc.	Medium term	Medium	High					

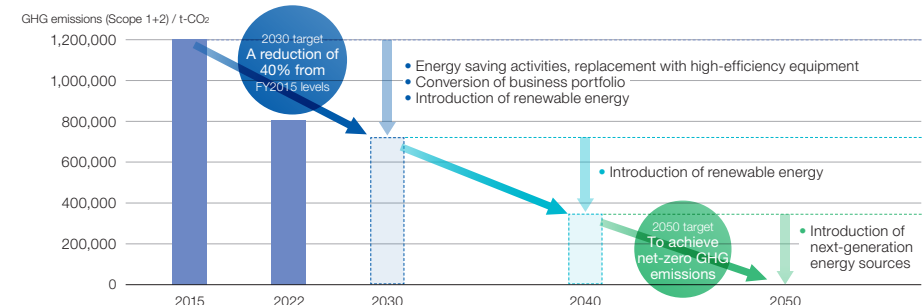
• Targets and Indicators → See related pages: 6, 17, 19, 22-24

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 40% from FY2015 levels by 2030 Long-term environmental vision: To achieve effective net-zero emissions by 2050

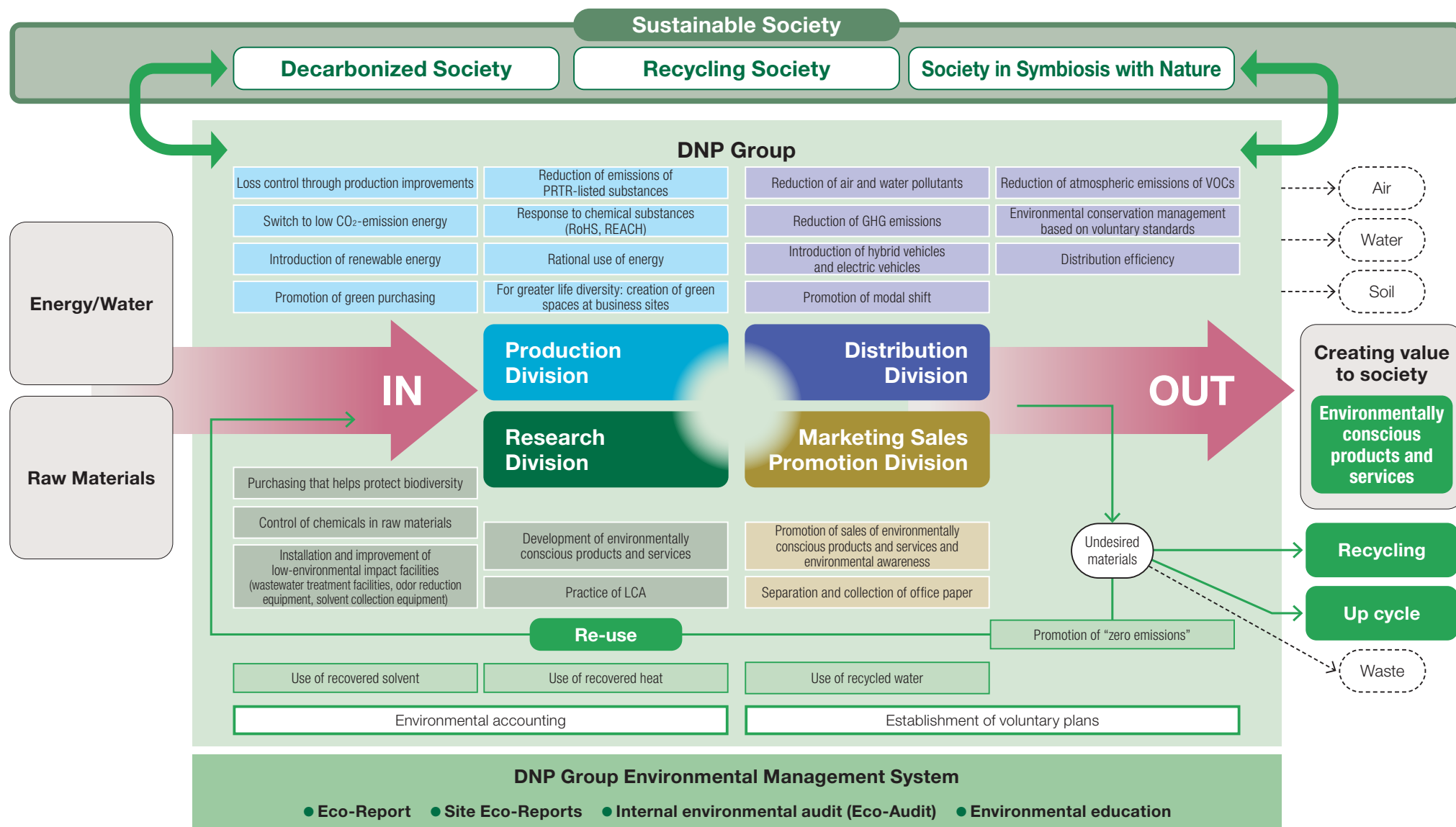
• Roadmap for achieving carbon neutrality by 2050

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

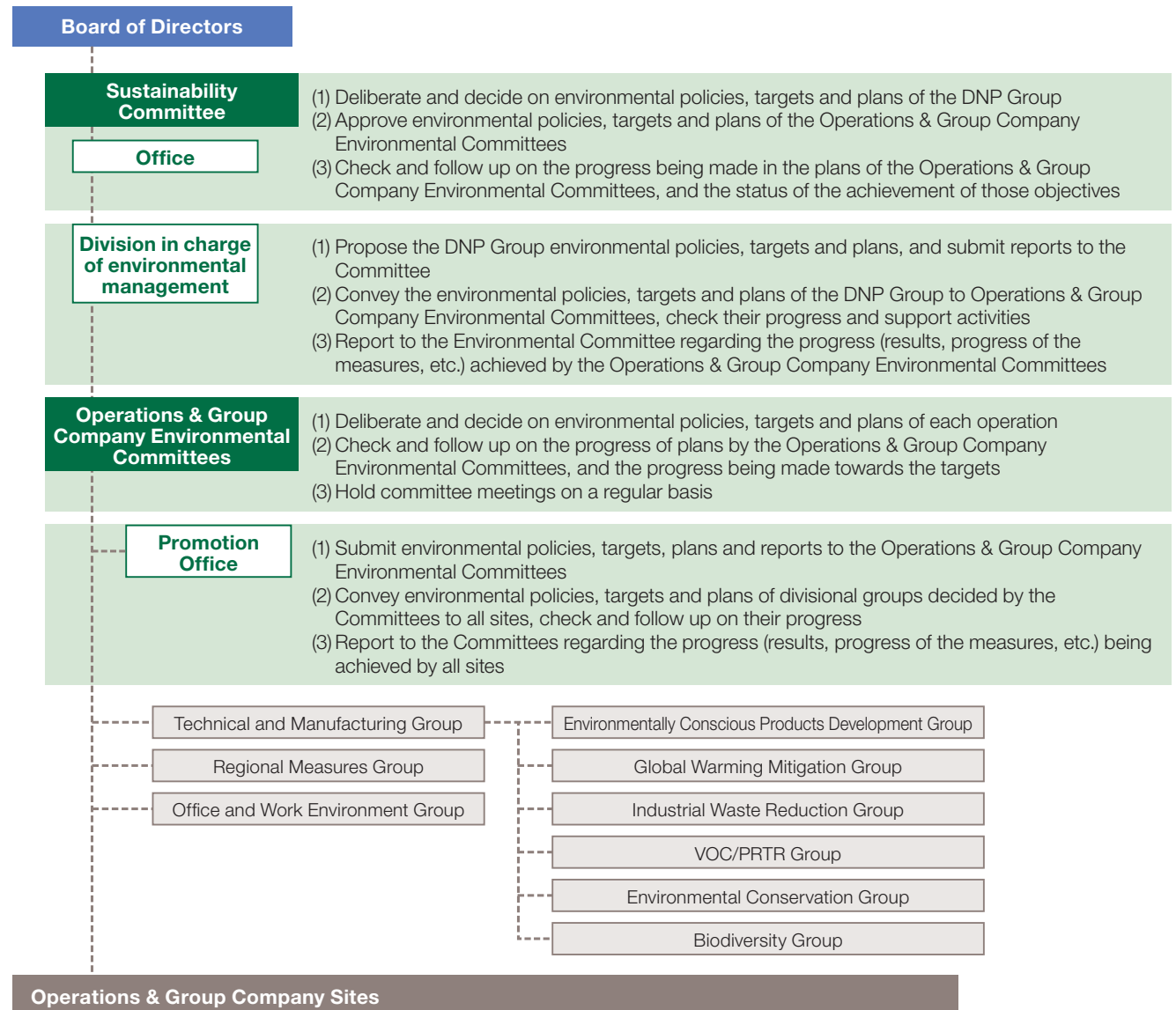
The DNP Group has established a division in charge of environmental management subordinate to the Sustainability Committee to coordinate Group-wide environmental activities. Operations & Group Company Environmental Committees have also been set up to promote activities within each business segment. Each committee has its own office or promotion office.

• Sustainability Committee

Chaired by the president and consisting of the directors and corporate officers in charge of divisions 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

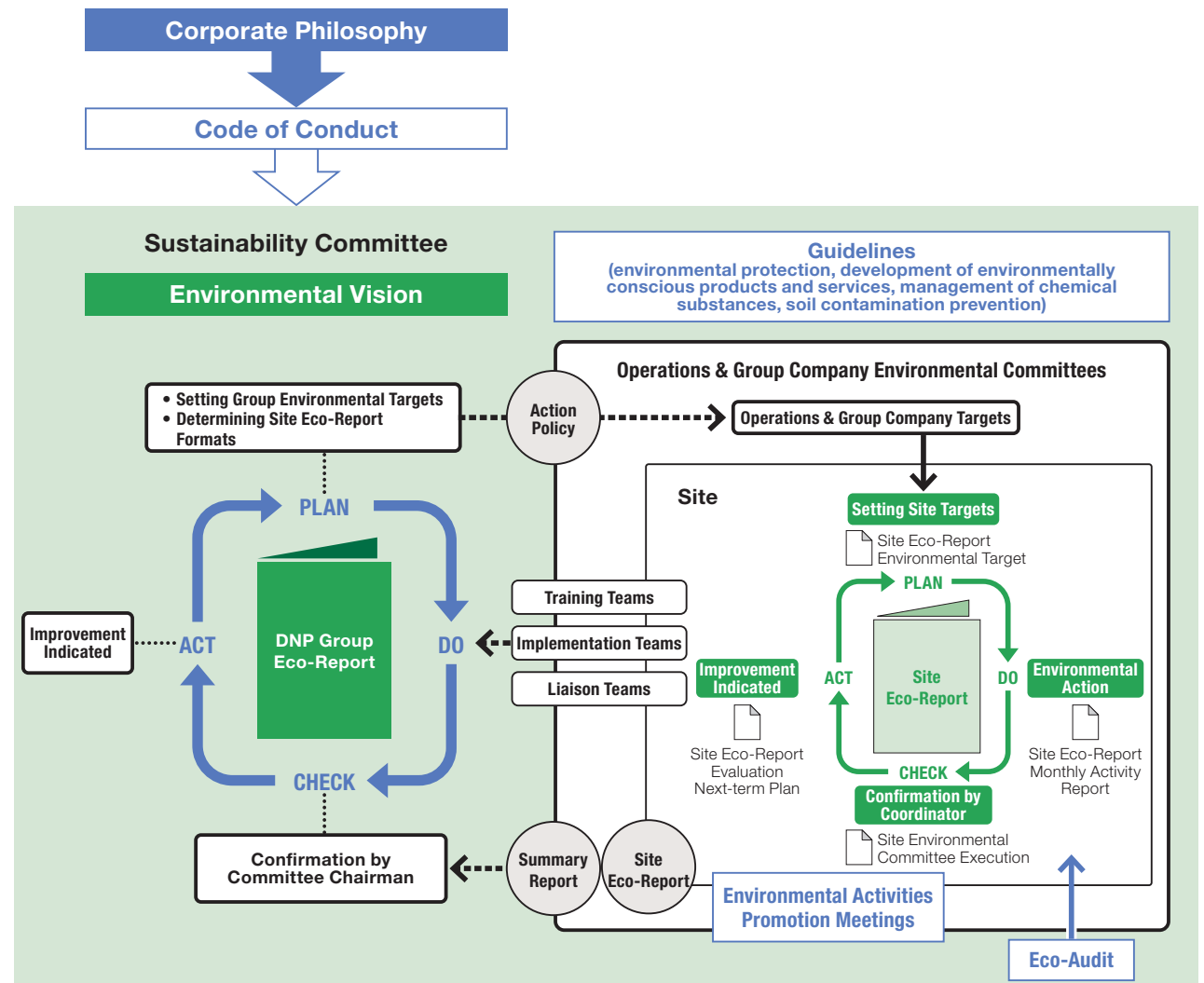
At DNP, we created our own environmental management system (EMS) in 1993, prior to the publication of the ISO 14001 standard. Our EMS uses the twin tools of the DNP Group Eco-Reports and Site Eco-Reports set up by the Sustainability Committee Office as a framework. We also execute the Plan-Do-Check-Act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

The DNP Group Eco-Reports cover changes in applicable laws, our courses of action and how well the DNP Group overall has achieved its targets. The Eco-Reports are shared between the Operations & Group Company Environmental Committees and with 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.

Subordinate to the Sustainability Committee, the division in charge of environmental management regularly holds meetings to promote environmental activities and receive reports from the Operations & Group Company Environmental Committees on progress and other issues.

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

Outline of the DNP Group Environmental Management System



Environmental Management Structure

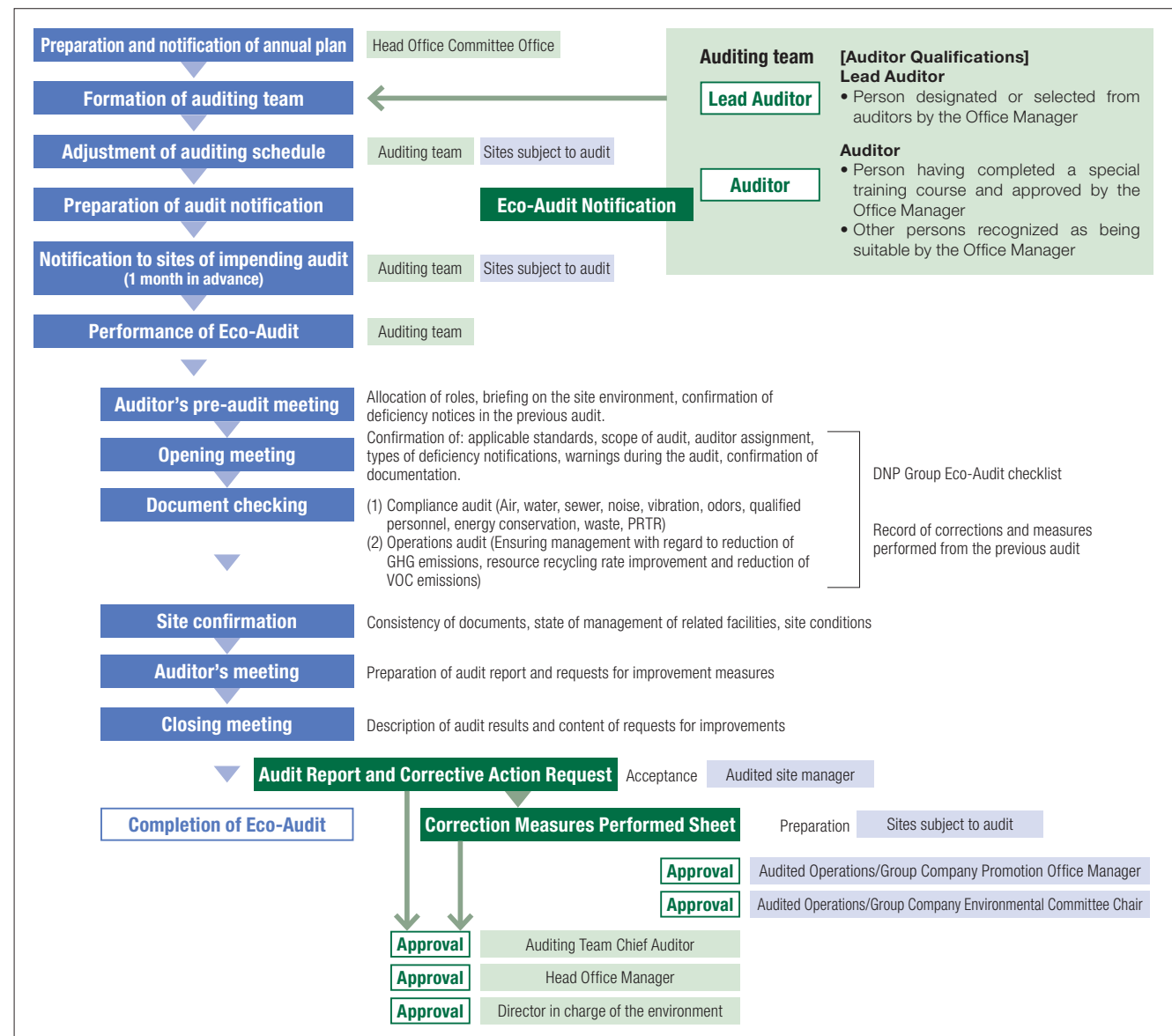
Eco-Audit Content and Flow

We began implementing “Eco-Audits” in 1996, so as to make our Environmental Management System (EMS) more effective. Eco-Audits are conducted by our internal auditor and cover our internal manufacturing sites. The 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	512 persons
Cumulative auditor numbers	92 persons
Cumulative auditing hours	193 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 FY2022 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 FY2023.

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 FY2022, 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)

Currently, six sites use or keep low-concentration PCB devices and they have a total of 28 devices including transformers and capacitors. These devices are carefully kept in specified spaces using dedicated containers in compliance with related laws so that the devices will not be lost and or leak. We will continue to research how the devices are kept and completely dispose of all low-concentration PCB devices by the deadline, the end of March 2027. Research into the high-concentration PCBs that we had possessed and their disposal has already been completed.

• 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

During the most recent three-year period, we had one incident with a value exceeding the standard. Regarding the incident, we were told by the government to submit an improvement report. This has already been completed. 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, 2023)

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, Production of Flexible Packaging Division, 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
DNP Fine Chemicals Utsunomiya	Mar. 1997	JCQA
Izumizaki Plant, DNP Technopack	Aug. 2008	SGS

Site	Date Registered*1	Registration Organization
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 (Pittsburgh)	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
Tokyo Office, Mobility Division	Jan. 2020	JIA-QA
DNP Imagingcomm Asia Sdn.Bhd.	Jul. 2022	SGS
DNP Imagingcomm America Corporation (Concord)	Jan. 2023	NSF ISR

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	Number of participants			Time of Year
				Total Attendance (persons)	FY2021 (persons/year)	FY2022 (persons/year)	
Education for New Recruits	Environmental Activity Overall (required) Basic environmental knowledge and conservation efforts of the DNP Group	1994	All new recruits	9,710	249	273	When joining the company
Technical Seminar	Environment/Chemicals (optional) Environmental Laws and Regulations Waste Treatment	1999	Employees related to operation	1,843	135	95	Once yearly
In-company seminars	Information of global risks and SDGs, etc.	1993	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.)	FY2022 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 FY2022: 0.763 million tons 	36.5% 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 FY2022: 11.4 kl/billion yen 	19.6% 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 FY2022: 11.9% 	
Increasing the resource recycling rate	P 25-26	Improve the resource recycling ratio* 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 ratio in FY2015: 51.7% Resource recycling ratio in FY2022: 58.0% 	6.3 points improvement compared to FY2015 
		Maintain zero emissions (Japan)	Landfill waste ratio in FY2015: 0.06% Landfill waste ratio in FY2022: 0.03% 	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 FY2022: 5.29 m³/million yen 	38.1% 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 FY2022: 3,644 tons 	20.4% 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	93% achievement ratio of targets for FY2022 (voluntary target)	
		To keep the maximum concentration of water emissions subject to wastewater regulations at 70% of the required standard or less	99% achievement ratio of targets for FY2022 (voluntary target)	
		To keep the maximum concentration of odors at our site perimeters at 70% of the required standard or less	99% achievement ratio of targets for FY2022 (voluntary target)	
		To keep the maximum level of noise at our site perimeters at 70% of the required standard or less	99% achievement ratio of targets for FY2022 (voluntary target)	
		To keep the maximum level of vibration at our site perimeters at 70% of the required standard or less	100% achievement ratio of targets for FY2022 (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, our target was revised upward. This was shown 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

Main raw materials input (Unit: 1,000 tons)

	2021	2022	
Paper	666.9	609.3 (8.6% decrease)	
Film	195.4	185.1 (5.3% decrease)	
Plastic	129.0	123.4 (4.3% decrease)	
Metal	60.5	53.2 (12.1% decrease)	
Ink	102.7	92.8 (9.6% decrease)	
Others	73.1	66.9 (8.5% decrease)	

Main secondary materials input (Unit: 1,000 tons)★

	2021	2022	
Solvent	26.0	24.7 (5.0% decrease)	
Acid and alkaline	8.0	7.4 (7.5% decrease)	

★ Scope limited to within Japan only

Utilities (Energy consumption)*1

	2021	2022	
Electricity (million kWh)	1,190	1,150 (3.4% decrease)	
City gas (million Nm ³)	63.9	56.2 (12.1% decrease)	
LNG (million kg)	18.2	17.4 (4.7% decrease)	
LPG (million kg)	5.6	5.3 (5.9% decrease)	
Fuel oil (kl)	682	585 (14.2% decrease)	
Steam (TJ)	29	32 (10.3% increase)	
Kerosene (kl)	1,350	1,180 (12.6% decrease)	
Water (million m ³)	7.8	7.3 (6.7% decrease)	

*1 Total energy consumption FY2022: 15,040TJ

Product Manufacturing Process

Information Communication

Books and magazines, commercial printing, IC card, etc.

Lifestyle and Industrial Supplies

Packaging, decorative materials, industrial supplies, etc.

Electronics

Displays, electronic devices, etc.

Other

Ink, beverages, etc.

Current Status of Recycling in the DNP Group★

	2021	2022	
Recycled solvent (1,000 tons)	4.2	4.2	
Usage ratio *2	1.1	1.2	
Recycled acid and alkaline (1,000 tons)	10.2	9.3	
Usage ratio	2.3	2.3	
Recycled water (million m ³)	213.56	219.21	
Usage ratio	29.8	32.7	
Vapor generated from waste heat recovery (tons)	149,000	156,000	

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

★ Scope limited to within Japan only

Emissions into the air

	2021	2022	
GHG** emissions (1,000 tons-CO ₂)	801	763 (4.7% decrease)	
NOx emissions (tons)★	474	447 (5.7% decrease)	
SOx emissions (tons)★	4.9	4.7 (4.1% decrease)	
Atmospheric emissions of VOCs (tons)	14,617	13,166 (9.9% decrease)	

*3 GHG: Greenhouse Gases

Emissions from the use of electricity were recalculated to include past years using the coefficients for the fiscal years prior to the tabulated fiscal years. (Details are listed on page 22.)

★ Scope limited to within Japan only

Emissions into bodies of water

	2021	2022	
Water discharged (million m ³)	6.1	5.7 (6.9% decrease)	
COD emissions (tons)★	18.1	17.8 (1.7% decrease)	
Nitrogen emissions (tons)★	5.0	4.7 (6.0% decrease)	
Phosphoric emissions (tons)★	0.2	0.2 (—)	

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

★ Scope limited to within Japan only

Emissions of undesired materials and others (Unit: 1,000 tons)

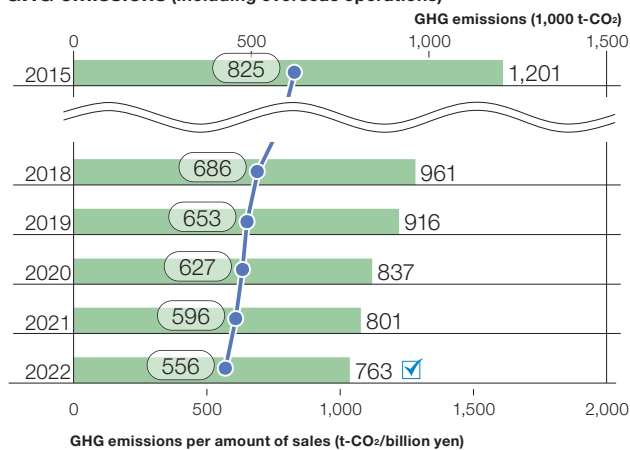
	2021	2022	
Total undesired materials emissions	264	245 (7.2% decrease)	
Total undesired materials emissions (excluding recycled resources)*5	75.8	68.0 (10.3% decrease)	
Waste emissions	55.1	50.5 (8.3% decrease)	
Landfill waste amount	5.0	4.9 (2.0% decrease)	

*5 Total undesired materials emissions excluding waste paper and other undesired materials that are recycled into resources

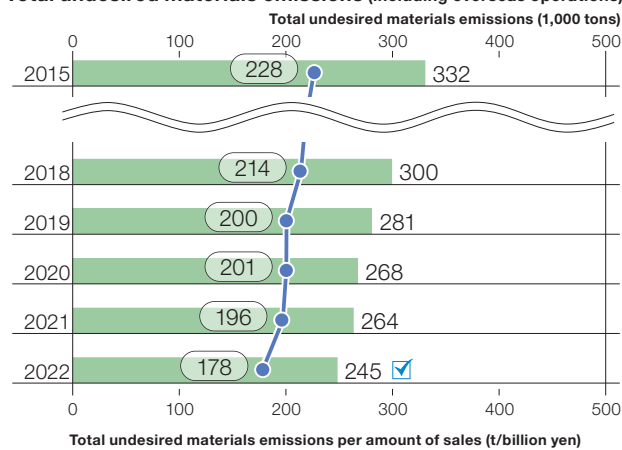
Environmental Management Activities

Environmental Impact and Environmental Efficiency

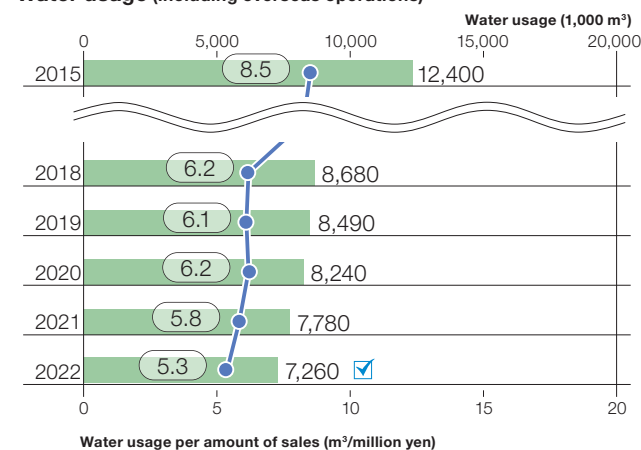
GHG emissions (including overseas operations)



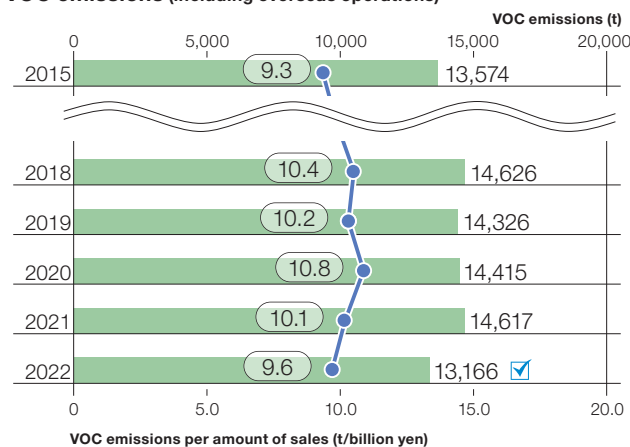
Total undesired materials emissions (including overseas operations)



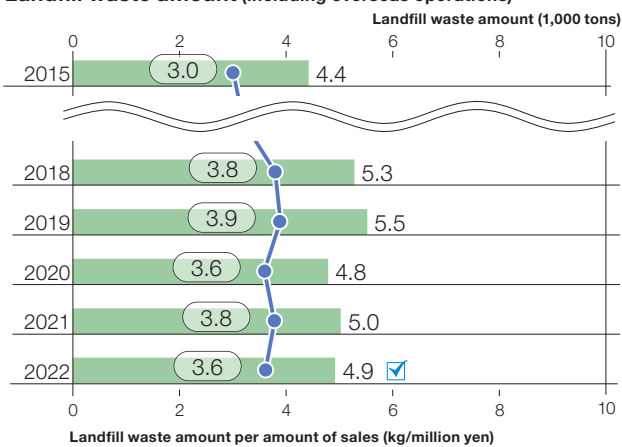
Water usage (including overseas operations)



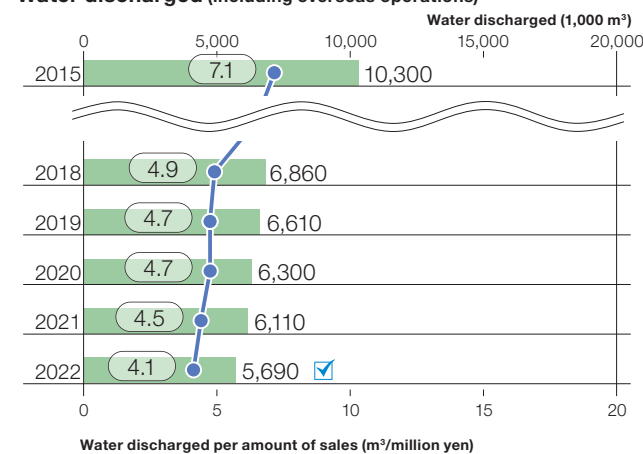
VOC emissions (including overseas operations)



Landfill waste amount (including overseas operations)



Water discharged (including overseas operations)



Environmental Management Activities

Expansion of Environmentally Conscious Products and Services

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

FY2022 results: ¥163.1 billion

The ratio of super-eco products sales to total sales is 11.9%

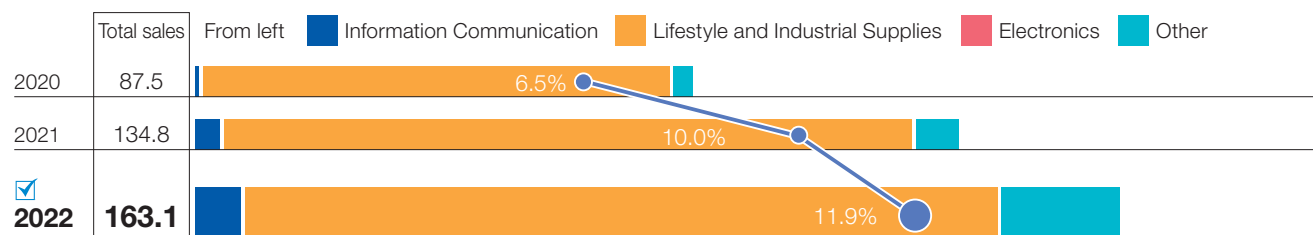
Example super-eco product



DNP mono-materials for packing

For recyclability, packages are made of single materials (mono-materials). The use of our unique converting, film-forming, vapor deposition and other technologies that we have cultivated adds high gas barrier properties and light blocking properties, giving the packages the necessary functionality.

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

CoC Certification

Certification Type	Acquired by*	Licensing Number	Registration Organization	Acquisition Date
CoC: FSC®	Information Innovations 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
	DNP imagingcomm Europe B.V.	FSC®-C175372	SKH-COC-000661	March, 2022
CoC: PEFC	Imaging Communications Operations	FSC®-C182001	SGSHK-COC-350726	September, 2022
	Life Design Operations	PEFC/01-31-01	SGSJP-PEFC-COC-2000	January, 2004
	DNP Trading Co.,Ltd.	PEFC/31-31-77	SGSJP-PEFC-COC-0313	January, 2008
	Living Space Operations	PEFC/31-32-1544	SGSJP-PEFC-COC-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 2023.

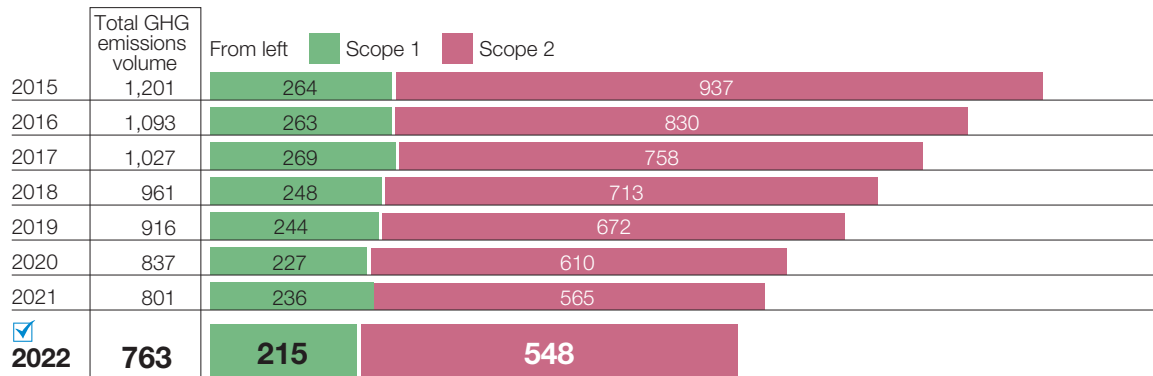
Environmental Management Activities—Achieving a Low-Carbon Society

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 FY2022 results: 763 [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.4.8 (April 1, 2022). (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–FY2021 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
2012	Technology Development Center	11kW
2015	DNP Ichigaya-Kagacho Building	36kW
	DNP Ichigaya-Takajocho Building	24kW
	Sayama Plant	6kW
2020	Kashiwa Research Institutes	600kW

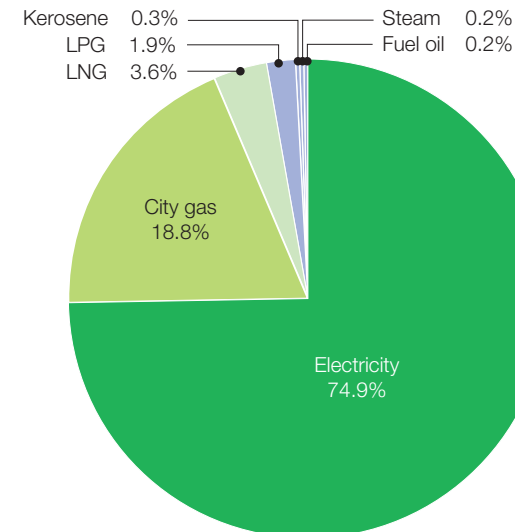
The total amount of power generated or purchased in FY2022 was 2,994 thousand kWh. We also currently purchase 1.80 million kWh of Renewable Energy Certificates annually to cover part of the power consumption used by manufacturing processes within the Group (for printing, bookbinding and processing) and other facilities.

In FY2023, DNP Technopack Kyotanabe Plant, DNP Indonesia Karawang Factory and other facilities will introduce renewable energy on an on-site PPA basis while Hokkaido Coca-Cola Products Sapporo Factory is scheduled to introduce it on an off-site PPA basis.

• Domestic GHG emissions volume by category

Unit: tons-CO ₂	
Total GHG emissions volume	664,300
Energy source	641,120
Non-energy source	20,000
Methane	350
N ₂ O	470
HFC	2,350
PFC	10
SF ₆	0
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 FY2022 results

Cargo transport volume: 275 million ton-kilometers

Amount of fuel used for transport: 15,710 kl

(converted to crude oil)

CO₂ emissions: 41,470 tons

Per-unit fuel use for transport

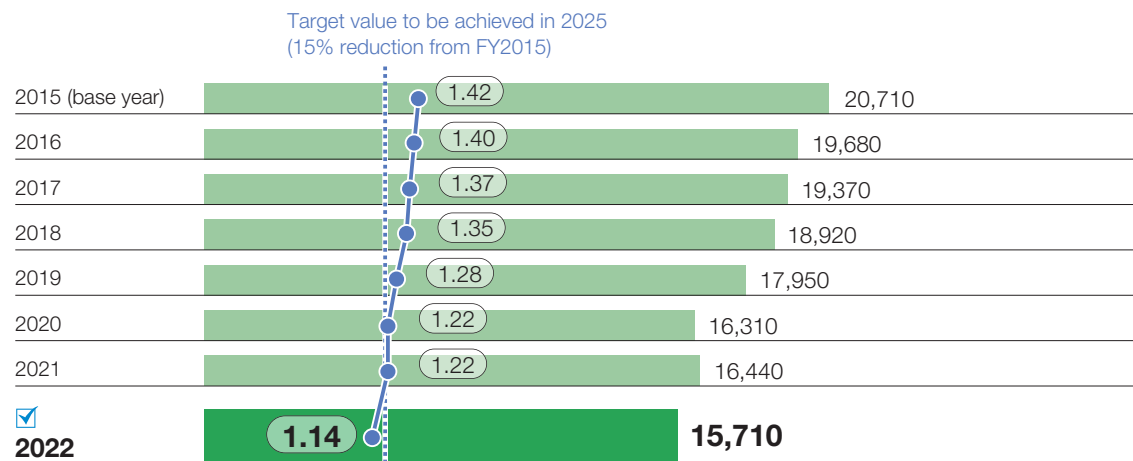
(amount of fuel used/sales): 11.4 kl/billion yen

19.0% reduction compared with FY2015

• **Global warming measures for offices**

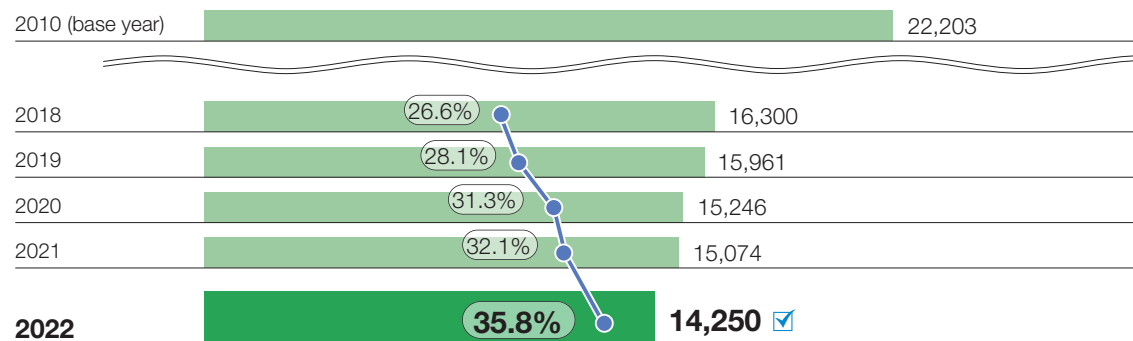
The DNP Group has been engaged in efforts to reduce CO₂ emissions for offices since FY2005. We established a target of a 20% reduction in power consumed at our offices throughout Japan compared with FY2010. Specific actions that we are implementing include completely revising the number of lighting fixtures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

Fuel use for transport* (Unit: kl converted to crude oil) Bar graph
Fuel use for transport per amount of sales (Unit: kl/billion yen) Line graph



*Fuel use during domestic cargo transport

Power consumption at major offices* (Unit: 1,000 kWh) Bar graph
Reduction ratio compared with FY2010 Line graph



*31 major offices in Japan under continuous operation during the period FY2010–FY2022

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

	FY2020	FY2021	FY2022
Scope 1 GHG emissions	227	236	215
Scope 2 GHG emissions	610	565	548
Scope 3 GHG emissions	4,260	4,240	4,370
Emissions from the supply chain	5,100	5,040	5,130

Breakdown of Scope 3 GHG emissions

Category 1	Purchased products and services	2,720	2,700	2,750
Category 2	Capital goods	150	92	160
Category 3	Fuel and energy-related activities that do not fall under Scopes 1 and 2	130	140	130
Category 4	Transportation and distribution (upstream)	150	180	170
Category 5	Waste generated by operations	61	29	27
Category 6	Business travel	4	4	8
Category 7	Employee commute	15	17	24
Category 8	Leased assets (upstream)	—	—	—
Category 9	Transportation and distribution (downstream)	570	620	620
Category 10	Fabrication of sold products	—	—	—
Category 11	Use of sold products	7	11	12
Category 12	End-of-life treatment of sold products	450	450	460
Category 13	Leased assets (downstream)	—	—	—
Category 14	Franchises	—	—	—
Category 15	Investment	6	6	4

Calculation method

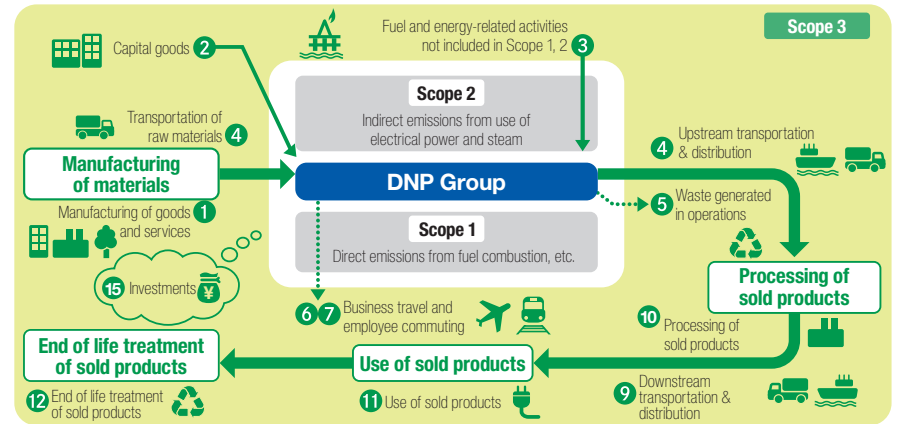
The Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment (MOE) formulated and released the “General Guidelines on Supply Chain GHG Emission Accounting, Ver 3.3” the standards of which our calculations are based upon.

- 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.

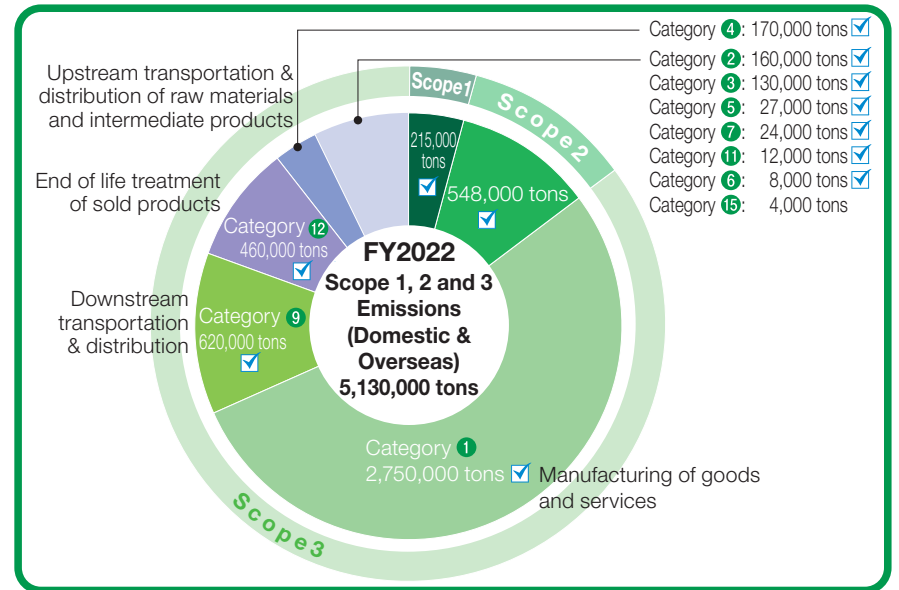
Since FY2021, the figures have been calculated using IDEA emission intensity. (IDEA Ver.3.3 was used for FY2022)

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, and DNP Imagingcomm Asia Sdn. Bhd.).



• Scope 3 GHG emissions



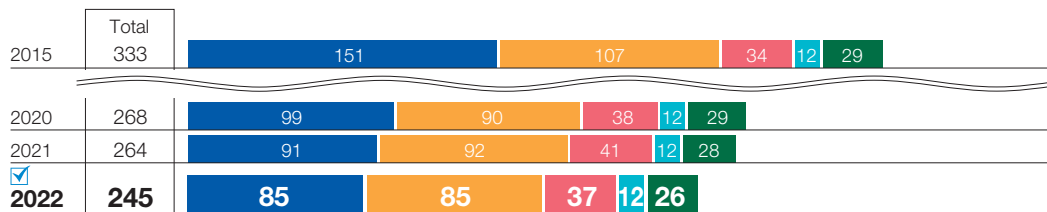
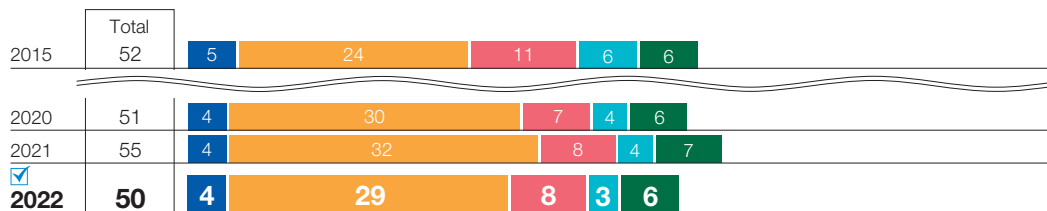
Environmental Management Activities—Building a Recycling Society

Resource Recycling

DNP Group Environmental Vision 2050 states the DNP Group will work to realize a recycling-oriented society (efficient use of resources) in pursuit of the shift from economic activities characterized by mass production, mass consumption and mass disposal to a circular economy that sustainably uses resources. To this end, we are striving to minimize total undesired materials emissions and the landfill waste rate. Additionally, from FY2021, we have encouraged recycling excluding thermal recovery using resource recycling rates as an indicator. We are pushing forward with the efficient use of resources in this way.

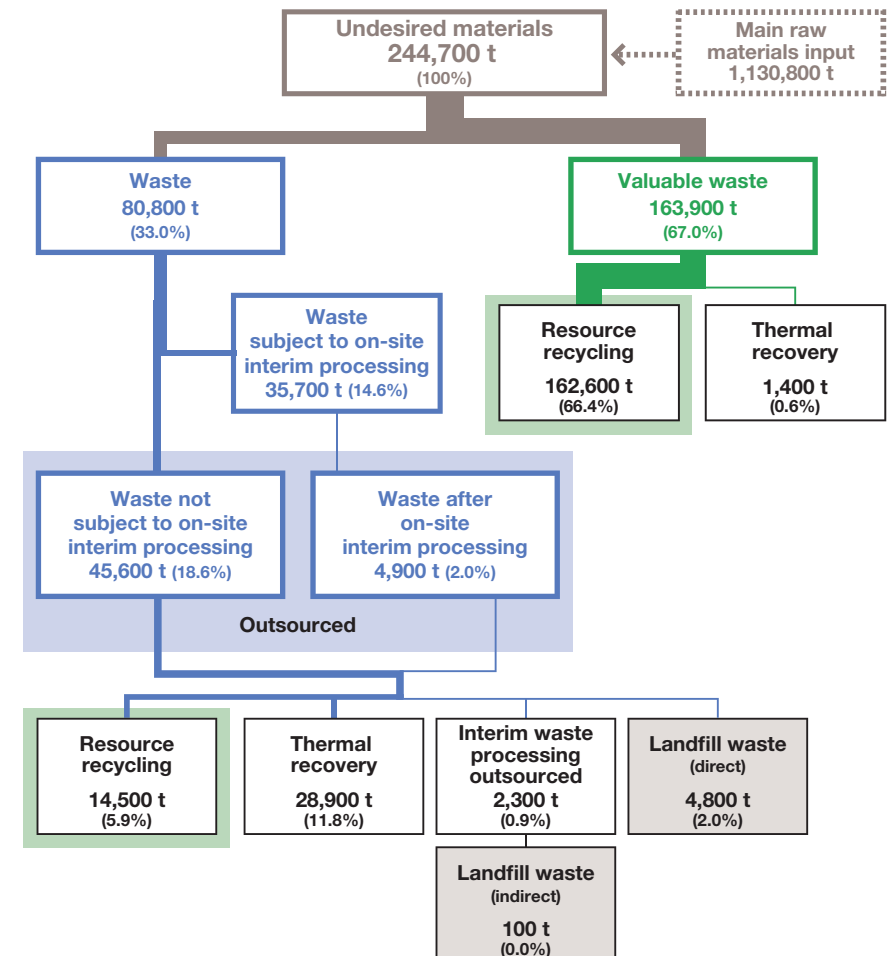
- **Minimizing total undesired materials emissions**

We engage in yield improvement activities in production processes to control undesired materials (waste and valuable waste) emissions from our Sites. We try to limit our use of materials in production activities to the smallest amount necessary.

Undesired materials emissions (Unit: 1,000 tons)**Waste emissions (outsourced)** (Unit: 1,000 tons)

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

- **Undesired materials processing flow**



*Percentages are rounded, so they may not add up to the total.

Environmental Management Activities—Building a Recycling Society

Resource Recycling

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

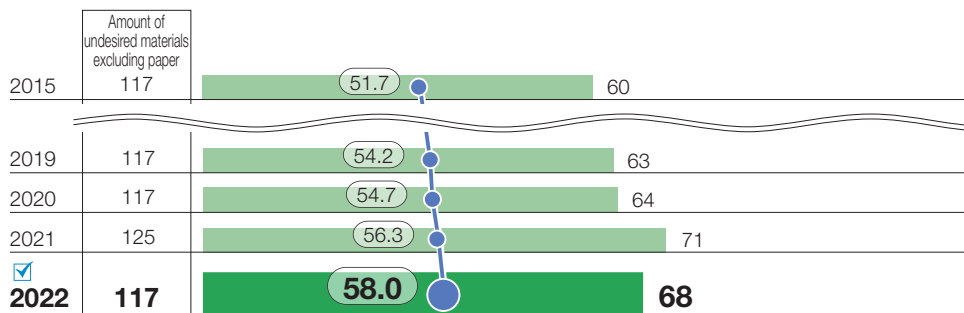
Many different initiatives are under way to increase the resource recycling rate of undesired materials (waste and valuable waste) emissions from our sites. In particular, we focus on plastics which are a large proportion of waste and engage in initiatives such as: (1) changing product specifications to facilitate resource recycling, such as using a single material (shift to mono-material products); (2) promoting material recycling by separating waste into more detailed segments, and; (3) collaborating with partner companies to shift to chemical recycling.

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

Undesired materials overall

Amount of resource recycling (Unit: 1,000 tons) ■ Bar graph

Resource recycling ratio (Unit: %) —●— Line graph



• **Resource recycling rate:** Amount of resource recycling/Amount of undesired materials excluding paper as valuable waste × 100

• **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

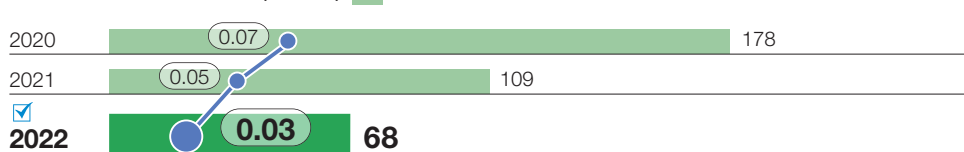
• **Amount of undesired materials excluding paper:** Amount of undesired materials (waste + valuable waste) excluding paper as valuable waste, which is 100% recycled, and the amount of sludge subject to on-site intermediate processing

• Minimizing the landfill waste rate (in Japan)

In Japan, we are working to minimize the landfill waste rate with zero emissions as a goal. Zero emissions is the initiative of reducing the amount of landfill waste divided by the total amount of undesired materials emissions to 0.5% or less.

Landfill waste ratio (in Japan)

Amount of landfill waste (Unit: tons) ■ Bar graph / **Landfill waste ratio (Unit: %)** —●— Line graph

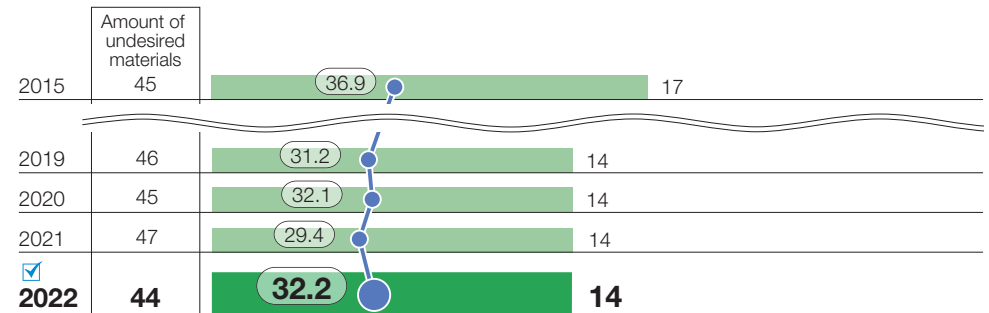


Landfill waste rate: Amount of landfill waste (direct and indirect)/total undesired materials emissions × 100

Plastic (in Japan)

Amount of resource recycling (Unit: 1,000 tons) ■ Bar graph

Resource recycling ratio (Unit: %) —●— Line graph

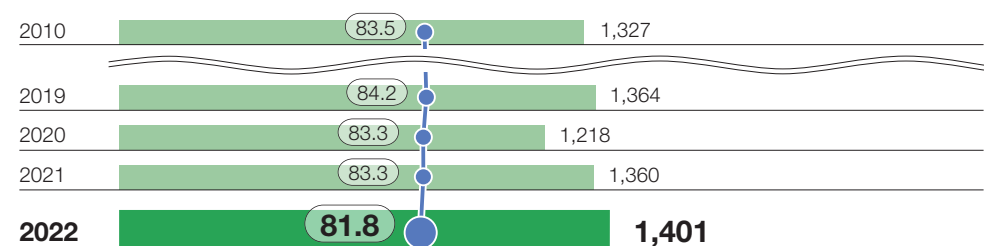


• Office paper recycling (in Japan)

The business of the DNP Group is closely connected to paper, and we have been separating and collecting paper at our domestic offices. In FY2022, waste paper was collected at 45 offices, primarily large-scale offices, for a recycling rate of 81.8%, exceeding our target of 70%.

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

Used paper collection ratio (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

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.

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

FY2022 results

Water used: 7,260 [1,000 m³]

**Unit water consumption per sales:
5.29 (m³/million yen)**

• 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	FY2020	FY2021	FY2022
Surface water (clean water and industrial water)	Japan	4,340	4,010	3,680
	Europe	60	60	60
	North America	80	80	70
	Other Asian countries	400	230	210
	Total	4,880	4,380	4,020
Groundwater	Japan	3,360	3,400	3,240
	Europe	1	2	1
	North America	0	0	0
	Other Asian countries	0	0	0
	Total	3,360	3,400	3,240
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		8,240	7,780	7,260

Wastewater

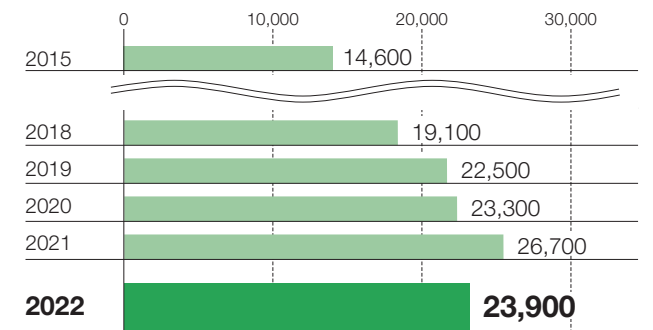
Unit: 1,000 m³

Wastewater destination	Area	FY2020	FY2021	FY2022
Public water area	Japan	2,900	2,690	2,440
	Europe	0	0	0
	North America	0	0	0
	Other Asian countries	70	50	50
	Total	2,970	2,740	2,490
Sewerage networks	Japan	2,870	3,050	2,910
	Europe	60	60	60
	North America	80	80	70
	Other Asian countries	330	180	160
	Total	3,340	3,370	3,200
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		6,300	6,110	5,690

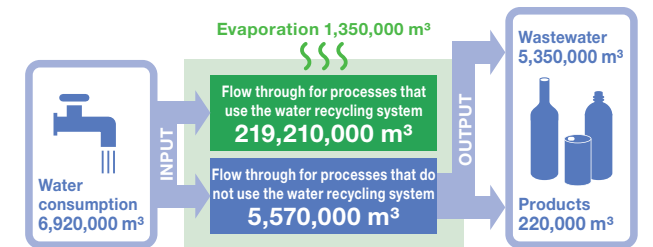
*No discharge to seawater Totals may not match the total of the figures in breakdowns due to rounding.

Use of rainwater in domestic office buildings, etc.

(Unit: m³)



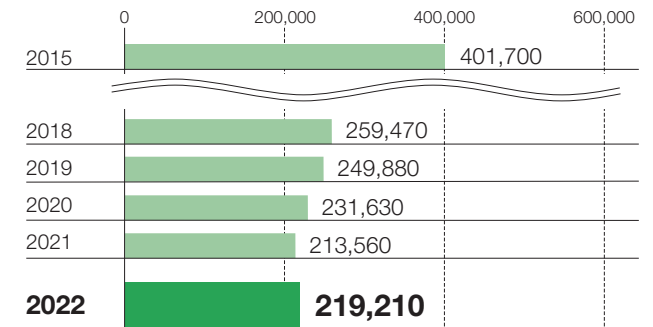
Water input-output in domestic sites



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

Recycled water use in domestic manufacturing sites

(Unit: 1,000 m³)



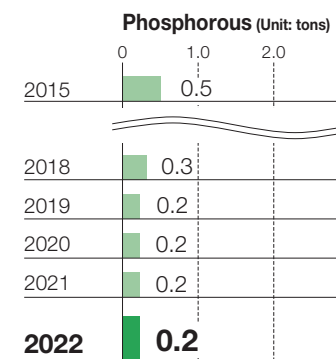
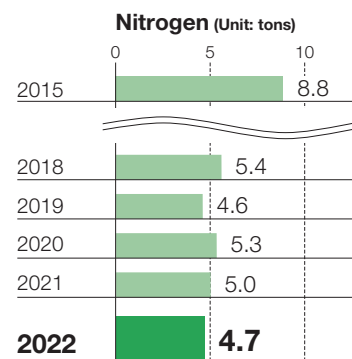
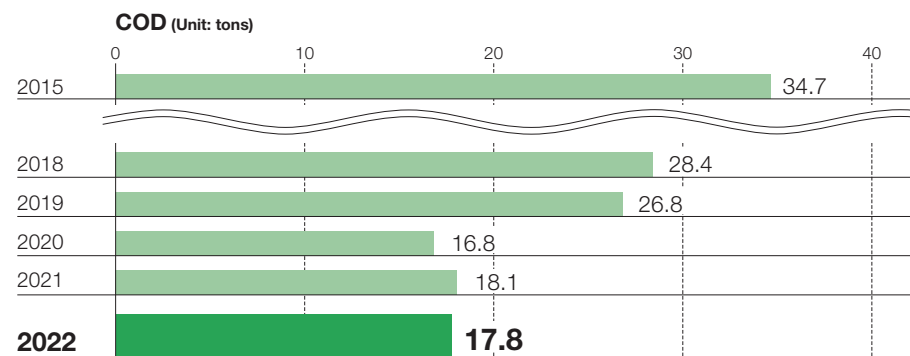
Recycled water: Total volume of water that flows through the heat exchange or cleaning equipment in our closed-cycle system in one year

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. For day-to-day management, 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.

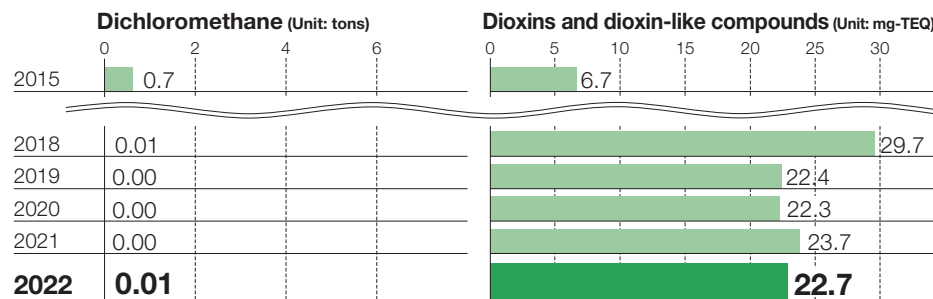
• Reducing VOC emissions

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 solvent recovery.

Atmospheric emissions of VOCs (domestic)

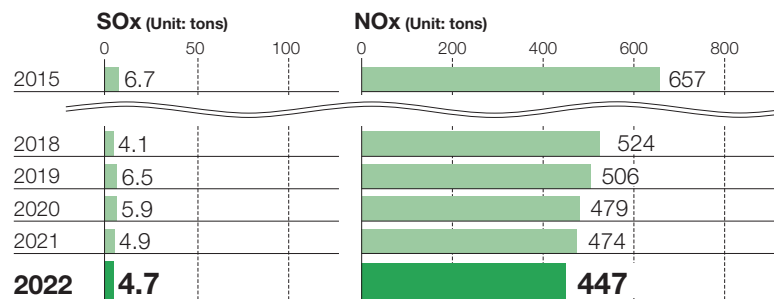
FY2022 results: 3,644 (tons)

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.

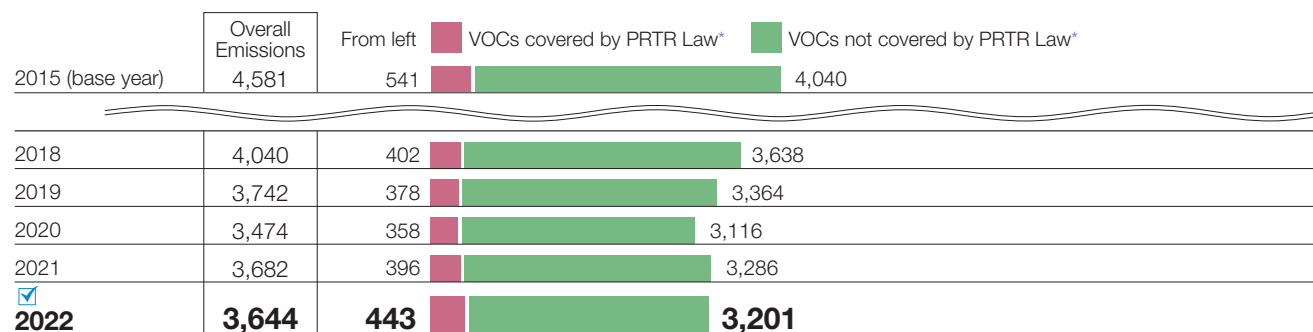
We totally eliminated small furnaces, for which burning control is difficult, and currently have five large-scale furnaces in operation, which are compliant with 2002 regulations.



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	7,200	3,700	2,600	–	190	–	–	–	730
Acrylonitrile	1,100	640	–	–	–	–	–	–	420
Acetonitrile	4,800	–	290	–	48	–	–	–	4,500
2-aminoethanol	46,000	–	–	–	–	–	–	–	46,000
Antimony and its compounds	1,200	960	–	–	–	–	–	–	230
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4,100	4,100	–	–	–	–	–	–	–
Ethylbenzene	180,000	–	120,000	47,000	2,000	–	–	–	8,400
Ethylenediamine	1,900	940	–	–	–	–	–	–	940
Ferric chloride	3,800,000	1,000,000	620,000	2,200,000	–	–	–	–	–
Epsilon-caprolactam	4,400	3,700	–	–	6.0	–	–	–	720
Xylene	170,000	–	110,000	41,000	3,000	–	–	–	11,000
Chromium and chromium (III) compounds	16,000	5,500	–	4,800	–	–	–	–	5,300
Hexavalent chromium compounds	6,000	4,000	1,900	–	–	–	–	–	86
Inorganic cyanide compounds (except complex salts and cyanate)	3,800	–	380	–	460	–	–	–	3,000
N,N-dimethylformamide	150,000	–	10,000	4,200	760	–	–	–	140,000
Bromine	4,400	4,400	–	–	–	–	–	–	–
Dioxins and dioxin-like compounds	–	–	–	–	23	–	–	–	120
Thiourea	1,300	–	1,300	–	–	–	–	–	–
1,3,5,7-Tetraazatricyclo [3.3.1.1(3,7)] decan	1,100	1,100	–	–	–	–	–	–	–
Water soluble copper salts (except complex salts)	180,000	27,000	20,000	140,000	–	–	–	–	450
Triethylamine	3,700	–	–	–	–	–	–	–	3,700
1,2,4-trimethylbenzene	24,000	–	14,000	9,100	290	–	–	–	–
1,3,5-trimethylbenzene	5,200	–	3,700	1,400	86	–	–	–	76
Toluene	8,100,000	1,400,000	4,700,000	150,000	430,000	–	–	–	1,400,000
Naphthalene	16,000	–	14,000	1,900	83	–	–	–	130
Hexamethylene diacrylate	1,400	1,200	–	–	–	–	–	–	190
Nickel	21,000	13,000	–	8,700	–	–	–	–	–
Nickel compounds	7,800	1,500	–	3,400	–	–	–	–	2,800
Hydrazine	1,400	1,300	–	–	–	–	–	–	69
N-hexane	38,000	–	2,300	–	380	–	–	–	35,000
1,2,4-Benzenetricarboxylic acid 1,2-anhydride	1,500	1,200	–	–	4.0	–	–	–	220
Benzophenone	2,100	2,100	–	–	–	–	–	–	–
Boron compounds	1,800	–	–	–	–	33	–	–	1,800
Polyoxyethylene alkylether*	1,100	1,000	–	–	–	–	–	–	38
Formaldehyde	790	–	–	–	790	–	–	–	–
Manganese and its compounds	3,100	470	–	210	–	–	–	220	2,200
Methacrylic acid	24,000	24,000	–	–	–	–	–	–	–
2,3-Epoxypropyl methacrylate	24,000	24,000	–	–	–	–	–	–	–
Methacrylic acid n-butyl	4,700	4,700	–	–	–	–	–	–	–
Methyl methacrylate	25,000	25,000	19	–	3.2	–	–	–	13
Methylenebis(4,1-phenylene) diisocyanate	1,100	1,100	–	–	–	–	–	–	–
Morpholine	41,000	3,900	1,300	–	220	–	–	–	35,000
<input checked="" type="checkbox"/> PRTR-listed substances	12,970,000	2,557,000	5,633,000	2,597,000	443,000	30	–	220	1,742,600

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

Environmental Management Activities—Realizing a Society in Symbiosis with Nature

Biodiversity Conservation

To realize a society in harmony with nature, DNP minimizes its impact on biodiversity throughout the value chain and works to ensure harmony with regional ecosystems. We examine our relationship with biodiversity in our business activities and push forward with specific initiatives based on important themes such as the procurement of raw materials and the creation of greenery areas on the premises of offices.

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.



DNP is selected harmony with nature site certification-equivalent “30by30* Alliance for Biodiversity”

DNP is redeveloping the Ichigaya district in Tokyo, home to its head office, as a center for new value creation. We are growing “Ichigaya-no-Mori” (The Ichigaya forest), a greenery area replicating while imaging the wooded area of Musashino which once spread there. By creating a new forest in an urban area as part of this city planning project, we aim to achieve both the development of a business base and contribution to the

environment. The Ichigaya-no-Mori site has also been selected as “harmony with nature site certification-equivalent” under a demonstration project by the 30by30 Alliance for Biodiversity, which is run by Japan's Ministry of the Environment (MOE). Together with the growth of the highly diverse Ichigaya-no-Mori site, DNP will continue working to create new value originating in the Ichigaya district.

*30by30: A global goal adopted at the 15th Conference of the Parties to the United Nations Biodiversity Conference (COP15) to protect and conserve at least 30% of land and sea areas in a healthy state by 2030

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 Technopack AMA supporters club

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 boneset, 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

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



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 Technopack Afforestation with rare Japanese beech (*Fagus crenata*) trees and Japanese beautyberry (*Callicarpa dichotoma*)

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



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

Nara Plant, DNP Data Techno Cultivation of a plant designated as an endangered species by the Nara prefectural government

We grow boneset, which is designated as an endangered species by the Nara Prefectural Government. The leaves of the plant are dried and used for sachets.



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



Nagoya Area Trimming reeds in the Shonai River

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

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

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
	FY2021	FY2022	FY2021	FY2022		
(1) Business area costs						
1) Pollution prevention costs	200	414	1,201	1,078	VOC collection and disposal equipment, wastewater treatment facility	18, 28-30
2) Global environmental conservation costs	595	1,920	449	467	Switching to energy-saving facilities and lighting	18, 19, 22-24
3) Resource circulation costs	71	141	1,992	1,762	Furnace improvements, separation recycling, zero emissions (conversion to RPF/cement ingredients), resource recycling	18, 19, 25
(Total business area costs)	866	2,475	3,643	3,308		
(2) Up/downstream costs	0	0	132	153	Container and packaging recycling expense burden, recycling system development	20, 21
(3) Administration costs	0	0	2,549	2,525	ISO 14001 inspection and registration costs, environmental education costs, environmental report composition costs	10-13, 15, 16, 21
(4) R&D costs	0	0	3,587	4,176	Research and development into environmentally conscious products and services and production methods	17, 20
(5) Social activities costs	0	0	14	12	Environmental conservation of areas outside plant compounds, biodiversity conservation, support for activities of environmental conservation groups	31
(6) Environmental remediation	0	0	4	0	Monitoring	14
Total	866	2,475	9,929	10,173		

● **Environmental conservation costs to total costs ratio**

Category	Consolidated total costs (million yen)	Costs (million yen)	Ratio
Investment of current period (FY2022)	78,000	2,475	3.17%
R&D cost of current period (FY2022)	32,480	4,176	12.86%

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
		FY2021	FY2022	Difference		
1) Benefit arising from supplied resources						
Total energy input volume	Energy consumption (TJ)	15,880	15,040	−840		17-19, 22-24
	Unit consumption per sales for the above (TJ/billion yen)	11.8	11.0	−0.8	Energy consumed per billion yen of domestic production	17-19, 22-24
Input volume of water	Water usage (1,000 m³)	7,780	7,260	−520		17-19, 27
	Unit consumption per sales for the above (1,000 m³/billion yen)	5.8	5.3	−0.5	Water usage per billion yen of domestic production	17-19, 27
Input volume of main raw materials	Supplied amount (1,000 tons)	1,228	1,131	−97		18, 25
	Amount of undesired materials generated/supplied (%)	21.5	21.7	0.2	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)★	4.9	4.7	-0.2		18, 29
	NOx emissions (tons)★	474	447	-27		18, 29
	Environmental pollutant emissions volume (tons)	14,617	13,166	-1,451	VOC emissions	17-19, 29
Water quality	COD discharge (tons)★	18.1	17.8	-0.3		18, 28
	Emissions of environmental pollutants (PRTR-listed substances) (tons)	0.0	0.0	0.0	None of the substances falls within the scope of reporting	30
Waste emission volume	Generated undesired materials (1,000 tons)	264	245	-19	Including undesired materials other than main raw materials	18, 25
	Discharged waste (1,000 tons)	55.1	50.5	-4.6		18, 19, 25
	Unit consumption per sales for the above (tons/billion yen)	41.0	36.8	-4.2	Discharged waste per billion yen of sales	19
	Recycle ratio (%)★	99.7	100.0	0.3	By category: paper (100%), waste plastics (99.1%), metals (100%)	26
	Emissions of environmental pollutants (PRTR-listed substances) (tons)★	1,457	1,743	286	Total for 28 substances reported	30
Volume of GHG emission	GHG emissions (1,000 t-CO₂)	801	763	-38		17-19, 22
	Unit consumption per sales for the above (tons/billion yen)	600	560	-40	CO₂ emissions per billion yen of sales	17-19, 22

★ Domestic only

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
		FY2021	FY2022	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	1,087	18	Total of part of Category 4, Categories 9, 10, 11 and 12 of Scope 3	22, 24
	CO ₂ emissions / domestic sales (1,000 t-CO ₂ /billion yen)	0.80	0.79	−0.01	CO ₂ emissions per billion yen of domestic sales	22, 24

(3) Other environmental conservation benefit

Category of indicator showing benefit	FY2021	FY2022	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)★	16,440	15,710	-730	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	11.4	-0.8	Emissions per billion yen of sales	23

Economic benefits of environmental conservation activities	Amount (million yen)			Remarks	Page(s) on which data is listed
	FY2021	FY2022	Difference		
(1) Increased sales 1) Economic benefit of R&D costs					
Sales of environmentally conscious products and services	134,800	163,100	28,300		17, 20
(2) Increased income 2) Benefit of resource recycling costs					
Income from recycling undesired materials★	2,040	2,055	15	Sale price of waste plastics and waste oil	26

★ Domestic only

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 24nd 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
FY2022	DNP is certified as an A-listed company, the highest CDP rating in climate change, and is included in the CDP Supplier Engagement Rating Leaderboard. For the second consecutive year, DNP has been selected as an Environmentally Sustainable Company in the Environmentally Sustainable Companies category of the 4th ESG Finance Awards Japan.

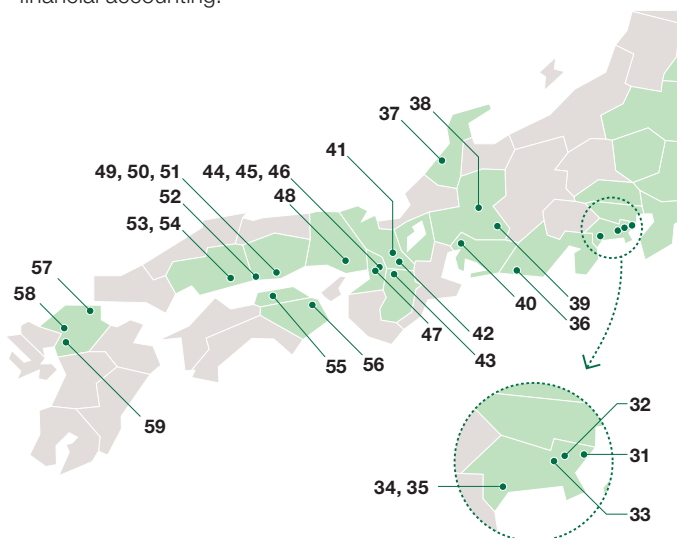
Environmental Activities Data

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, 2023.

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	31	■	Kawasaki Plant, D.T. Fine Electronics	Manufacturing of electronic precision parts
	Tsuzuki-ku, Yokohama	32	▲	Yokohama Plant, DNP Technopack	Manufacturing of packaging
	Midori-ku, Yokohama	33	□	Tokyo Plant, DNP Fine Chemicals	Manufacturing of chemicals, etc.
	Odawara	34	▲	Odawara Plant, Sagami Yoki	Manufacturing of laminated tubes
	Aikawa, Aiko	35	▲	Tokyo Plant, DNP Ellio	Printing and processing metal sheets
Shizuoka	Iwata	36	▲	Iwata Plant, DNP Tamura Plastic	Manufacturing of car supplies and various types of plastic products
Ishikawa	Hakusan	37	□	Hokuriku Techno Center, DNP Engineering	Manufacturing of printing machines and machine tools
Gifu	Gero	38	▲	Hagiwara Plant, DNP Tamura Plastic	Manufacturing of car supplies and various types of plastic products
	Nakatsugawa	39	▲	Tokai Plant, DNP Technopack	Manufacturing of packaging
Aichi	Moriyama-ku, Nagoya	40	●	Nagoya Plant, DNP Graphica	Plate-making / printing / bookbinding
Kyoto	Minami-ku, Kyoto	41	●	Kyoto Plant, DNP Data Techno	Manufacturing of various types of smart cards
	Kyotanabe	42	▲	Kyotanabe Plant, DNP Technopack	Manufacturing of packaging
Nara	Kawanishi, Shiki	43	●	Nara Plant, DNP Data Techno	Manufacturing of various types of smart cards
Osaka	Neyagawa	44	▲	Neyagawa Plant, DNP Technopack	Manufacturing of packaging
		45	▲	Osaka Plant, DNP Ellio	Printing and processing metal sheets
		46	●	Neyagawa Plant, DNP SP Innovation	Manufacturing of all types of advertising items
	Kadoma	47	●	DNP Media Support	Manufacturing of magnetic cards
Hyogo	Ono	48	●	Ono Plant, DNP Graphica	Printing plate / printing / bookbinding
Okayama	Okayama	49	●	Okayama Plant, DNP Imagingcomm	Manufacturing of dye-sublimation transfer materials
		50	▲	Okayama Plant, DNP Living Space	Plate-making / printing plate / printing / processing
		51	■	Okayama Plant, DNP Fine Optronics	Manufacturing of electronic parts
	Kasaoka	52	□	Kasaoka Plant, DNP Fine Chemicals	Manufacturing of chemicals, etc.
Hiroshima	Mihara	53	■	Mihara East Plant, DNP Fine Optronics	Manufacturing of electronic precision parts
		54	■	Mihara West Plant, DNP Fine Optronics	Manufacturing of electronic parts
Kagawa	Sakaide	55	▲	Sakaide Plant, Sagami Yoki	Manufacturing of laminated tubes / filling
Tokushima	Tokushima	56	□	DNP Shikoku	Plate-making / printing / manufacturing of packaging
Fukuoka	Tobata-ku, Kitakyushu	57	▲	Tobata Plant, DNP High-performance Materials	Manufacturing of solar cell filler
	Minami-ku, Fukuoka	58	●	Fukuoka Plant, DNP Graphica Fukuoka Plant, DNP Data Techno	Plate-making / printing / bookbinding
	Chikugo	59	▲	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 2022–March 2023 totals ③, ⑦–⑨ January 2022–December 2022 totals

Independent Review Report Comments by an Independent Institution



LRQA Independent Assurance Statement Relating to DNP Group's Environmental Data within DNP Group Environmental Report 2023 for the fiscal year 2022

This Assurance Statement has been prepared for Dai Nippon Printing Co., Ltd.'s in accordance with our contract.

Terms of engagement

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 2023 for the fiscal year 2022, that is, 1 April 2022 to 31 March 2023¹, 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.

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:

- 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}

Our assurance engagement excluded the data and information of the Company's suppliers, contractors and any third-parties mentioned in the report.

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.

LRQA's Opinion

LRQA's approach nothing has come to our attention that would cause us to believe that the Company has not, in all material respects:

- Complied with the Company's reporting methodologies
- Disclosed accurate and reliable environmental data

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.

¹ The reporting period for some overseas manufacturing subsidiaries are 1 January 2022 to 31 December 2022.

² The scope is covered Dai Nippon Printing Co., Ltd. and its 22 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 2023. And see Appendix 1 for detailed information on the data covered by this Independent Assurance Statement.

⁶ When breakdown data for each department is listed in DNP Group Environmental Report 2023, 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.



LRQA's approach

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:

- 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 2022; and
- Visiting Mihara-nishi Plant of DNP Fine Optonics Co., Ltd. and Sayama Plant of DNP Technopack Co., Ltd. to confirm the data collection processes, record management practices.

Observations

It is expected the company to actively seek opportunities for further improvement through the information from sites and other means to ensure efficient and accurate aggregation and calculation of environmental data.

LRQA's standards, competence and independence

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 - Part 2: 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.

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.

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.

Signed

Dated: 4 July 2023

Ichiro Ueno
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

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Appendix 1: The Scope of Work

LRQA undertook a limited assurance engagement of the environmental data listed below within the Environmental Report 2023. (The number of pages on the left side of this table below is the page published in the Environmental Report 2023.)

P.17	GHG emissions ^a
	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
	Acid and alkaline use
	Energy consumption (Electricity, City gas, LNG, LPG, Fuel oil, Steam, and Kerosene)
	Water use
	GHG emissions ^{a,b}
	Atmospheric emissions of VOCs
	Water discharged
	Total amount of 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 ^{a,b} (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 ^{a,b,c} (Categories 1,2,3,4,5,6,7,9,11, and 12)
P.25-26	Amount of resource recycling, Amount of waste (waste + valuable waste) excluding paper valuable waste, Resource recycling rate,
	Landfill waste amount, Landfill waste rate (domestic)
	Non valuable emissions
	Waste emissions
P.27	Water used, Water discharged
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)

Verification period

- Fiscal year 2022 (1 April 2022 to 31 March 2023)
- Some overseas plants collect and aggregate the environmental data in the calendar year 2022 (1 January 2022 to 31 December 2022).

^a GHG quantification is subject to inherent uncertainty.

^b 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.

Dai Nippon Printing Co., Ltd.

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

Tel: +81-3-3266-2111

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

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