Strengthening Efforts to Protect the Global Environment

The Nippon Shinyaku Group has made responding to environmental issues a key issue for management. "Strengthening efforts to protect the global environment" is one of our material issues, and we are pursuing business activities that take the global environment, and especially measures for dealing with climate change, into consideration.

Material issues and related SDGs

Strengthening efforts to protect the global environment







Environmental Management

The Nippon Shinyaku Group is aware that it is responsible for the burden it imposes on the environment and has established a Basic Environmental Policy to reduce its environmental impact in all areas of its business activities. As a company that helps people lead healthier, happier lives, our Basic Environmental Policy aims to realize a sustainable society by striving to protect, sustain, and improve the environment through eco-considerate business activities.



WEB ▶ Basic Environmental Policy

https://www.nippon-shinyaku.co.jp/english/sustainability/esg/ environment/environment_manage.php

The 7th Nippon Shinyaku Environmental Targets Plan (FY2023-2025)

Item	Targets
Climate change alleviation	Greenhouse gas emissions (Scope 1, 2) by FY2030 by 42% from the FY2020 benchmark Greenhouse gas emissions (Scope 1, 2) by FY2025 by 21% from the FY2020 benchmark
Water resources management	Reduce water use intensity by 10% from the FY2021 level by FY2025
Waste management	Reduce the final amount of landfilled waste by 75% from the FY2005 level by FY2025 Set the target waste plastic recycling rate for FY2025 at 65% or above Set the target waste recycling rate for FY2025 at 60% or above
Chemical substance management	Promote appropriate management of chemical substances, including those designated in the Pollutant Release and Transfer Register (PRTR) system provided for by the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement, and constantly reduce releases of such substances in the environment
Environmental management	Continue the certification of the environmental management systems (ISO 14001 and KES Step 2) so as to effectively improve environmental performance
Biodiversity	Promote biodiversity conservation activities

Environmental Targets Plan

The Environmental Targets Plan sets specific voluntary targets for the Company to achieve compliance with its Basic Environmental Policy.

The impact of climate change on the global environment is increasing, and the Paris Agreement called for a global reduction in greenhouse gases starting in 2020. Also, targets have been set for sustainable development goals (SDGs), including achieving reductions in climate change and environmental burdens by 2030.

We are fully aware that we are in a position where we too must take action, so we established our 7th Environmental Targets (for FY2023-FY2025) so that we can increase our corporate value based on sustainability management and create a sustainable society through practical efforts to achieve SDGs.

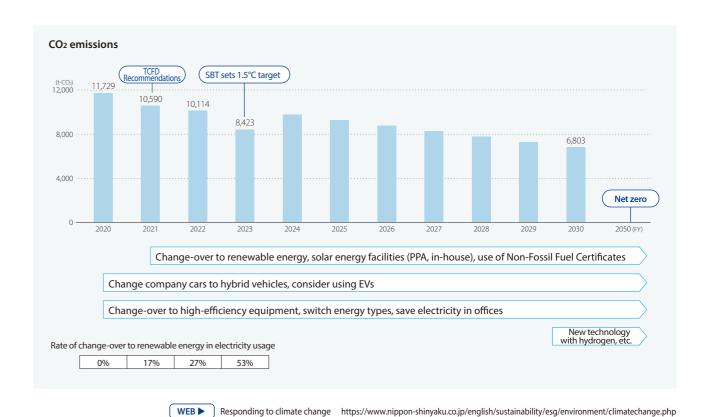
Initiatives to Reduce CO₂ Emissions

Climate change countermeasures are one of the Nippon Shinyaku Group's 5 material issues. Our targets are to reduce CO₂ emissions to zero by FY2050 and to reduce greenhouse gas emissions by 42% by FY2030 from the FY2020 benchmark (Scopes 1 and 2). We are taking steps to reduce our CO₂ emissions, and in January 2024, our target to reduce greenhouse gas emissions was certified as a science-based target by the Science Based Targets initiative (SBTi).

Switching to renewable energy

With the aim of achieving zero emissions by FY2050, the Nippon Shinyaku Group has a target of reducing its CO₂ emissions to 6,803t CO₂ by FY2030 (a 42% reduction from the FY2020 benchmark year).

In April 2021, we began to change the electric power



consumed by our entire head office complex to electric power generated from renewable energy sources, and this changeover project was completed in FY2023. In November 2022, we started switching over to hydroelectric power at our Odawara Central Factory. We also installed solar power generators at our Discovery Research Laboratories in Tsukuba in April 2022 and at our Odawara Central Factory in November 2023. The change-over at our head office went into effect in April 2024.

Through these initiatives, more than 50% of our electricity consumption in FY2023 came from renewable energy sources.

Moreover, we closed down the cogeneration system at our head office complex in FY2023 and have reduced the CO₂ emissions generated from burning city gas.

Introducing hybrid company-owned vehicles and other internal initiatives

By introducing hybrid vehicles for our sales activities and also encouraging employees to use public transportation systems while in urban centers, we are promoting measures to better respond to climate change and raising employee awareness.

Nippon Shinyaku's company cars were entirely replaced by hybrid vehicles over a four-year period starting FY2020, except in heavy snowfall areas.

We are reducing energy consumption through equipment improvement, promoting energy conservation following the guidelines for electricity conservation and energy saving, and educating employees on the importance and necessity of environmental preservation through in-house educational programs.

Supplier engagement

We are partnering with our suppliers to reduce CO₂ emissions in the supply chain.



WEB ▶ CO₂ emissions / Ratio of hybrid company cars https://www.nippon-shinyaku.co.jp/english/sustainability/esg/environment/climatechange.php#anchor02

Received third-party verification

To improve the reliability of our environmental information, we received a verification opinion from a third party, SOCOTEC Certification Japan Co., Ltd., based on Criteria of Verification (ISO14064- 3:2019 and the SOCOTEC Certification Japan Co., Ltd. verification protocol). The scope of the verification covered Scopes 1 and 2, energy consumption, and Scope 3, Category 1.



WEB Independent Third-Party Verification Statement https://www.nippon-shinyaku.co.jp/english/sustainability/esg/ environment/climatechange.php#anchor05

Strengthening Efforts to Protect the Global Environment

Disclosure Based on the TCFD Recommendations

In December 2021, Nippon Shinyaku declared its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).* In addition to working to address already identified risks from the perspective of risk management, the Company has also conducted scenario analysis of climaterelated risks and opportunities in the framework of the TCFD recommendations. We will also continue devising specific measures to address identified risks and opportunities and are taking steps to improve our related information disclosures.

 $\hbox{^*TCFD: Abbreviation for the Task Force on Climate-related Financial Disclosures. Established in}\\$ 2015 by the Financial Stability Board (FSB) to develop recommendations for more effective climate-related disclosures to be made by companies to investors, lenders, and insurance

Governance

In our efforts to be more proactive in promoting sustainability, the Nippon Shinyaku Group's Sustainability Committee, which meets twice a year and is chaired by our President, is discussing, reviewing, and making decisions regarding the key issues concerning sustainability for the entire Group. The Committee assesses and supervises climate change countermeasures, which have been identified as a material issues. The Sustainability Committee also meets twice a year to review the details and progress of our sustainability-promotion activities.

The Environment Committee, which meets quarterly and is chaired by the Director who serves as the Head of Business Management and Sustainability, is responsible for dealing with climate-related issues. This Committee, which is charged with executing the Group's Basic Environment Policy as determined by the Board of Directors, formulates environmental preservation policies, promotes environmental preservation and other initiatives, and checks on the progress of environmental preservation activities, including our annual reduction in CO₂ emissions. Also, the results of the Environment Committee and Sustainability Committee's investigations are reported at least once a year to the Board of Directors, which reviews them and provides oversight.

Risk management

The Nippon Shinyaku Group has put in place Basic Risk Management Rules, with the Director who is the Head of Personnel, General Affairs, Risk Management, Compliance & Digital Transformation acting as the Risk Management Officer, and a department dedicated to overseeing risk management. We have identified various possible risks, including risks related to climate change.

Specifically, we divide possible risks in our business activities

into six major categories—governance, strategies and plans, business infrastructure, business operations, supply chain, and disclosure and reporting—and then further divide these categories into subcategories. For example, we have a separate specific risk category for "CSR planning and environmental preservation initiatives (such as for greenhouse gases)," and we use a risk matrix with the two axes of impact on the Company and likelihood of occurrence to rate this risk according to its level of importance—high, medium, or low. Each relevant department has devised measures to prevent the actualization of these risks and has created risk management sheets for each risk in order to be able to respond appropriately to any realized risk.

Furthermore, every year, we formulate action plans for addressing the risks designated as very important for the entire Group or each department and enhance measures to prevent their actualization. The results of these activities are reported to the Risk & Compliance Committee and then to the Board of Directors at the end of each fiscal year in order to fine-tune our efforts in subsequent years.

Indicators and targets

As an indicator for managing the risks and opportunities of climate change, Nippon Shinyaku has established aspirational targets based on the science-based targets (SBTs) for reducing greenhouse gas emissions as proposed in the Paris Agreement. Taking FY2020 as the benchmark year, we are targeting a 42% reduction in our volume of greenhouse gas emissions by FY2030 (Scopes 1 and 2). Also, for greenhouse gas emissions in the supply chain (Scope 3, Category 1), we are targeting a 25% reduction in greenhouse gas emissions by FY2030 from the FY2020 benchmark. Our targets for reducing greenhouse gas emissions were certified as science-based targets by the SBTi in January 2024.

SBT certification Greenhouse gas reduction target

Scopes 1+2	Reduce greenhouse gas emissions by 42% by FY2030 (from the FY2020 benchmark)
Scope 3 (Category 1)	Reduce greenhouse gas emissions by 25% by FY2030 (from the FY2020 benchmark)

Strategy

Scenario analysis

In recognition of the enormous impact that climate-related risks and opportunities will exert on the Company's business strategies, the Nippon Shinyaku Group has identified the risks and opportunities associated with climate change and evaluated their importance. The analysis and evaluation of climate change-related risks and opportunities was conducted utilizing a 1.5°C warming scenario and a 4°C warming scenario.

First, we comprehensively extracted the risks and opportunities associated with climate change, then we sorted the extracted risks and opportunities by their correlation with two of our businesses, pharmaceuticals and functional foods. Finally, we assessed their importance based on the two criteria of degree of impact on the Company and probability of occurrence.

Transition risk

Category	Impact on Nippon Shinyaku	Details of measures of potential risks and opportunities	Indicator	Financial impact	Period		
					Short-term	Mid-term	Long-term
	,				~2025	2026~ 2030	2031~
Policies and laws	Risk of energy costs and procured goods prices increasing due to carbon taxes and strengthened energy conservation laws	Introduction of an internal carbon pricing system in order to promote investment in reducing greenhouse gas emissions Proactive deployment of energy conservation and renewable energy measures Inter-Group education and momentum-fostering initiatives Implementation of monitoring of environmental regulation trends by the Environment Committee 222 million yen by FY2030, 450 million yen by 2050 Estimated from the Company's 2022 Scopes 1 + 2 targets assuming \$140/t-CO₂ of carbon taxes in 2030. Estimated from the Company's 2022 Scopes 1 + 2 targets assuming \$250/t-CO₂ of carbon taxes in 2050.	Increase in expenses	Small		0	
Markets	Increases in market prices of procured goods due to increases in demand for raw materials (pharmaceuticals) Risk of decreases in demand due to increases in product prices in accordance with increased market prices of procured goods (functional foods)	Proactive support for suppliers' carbon neutral activities to deal with risk of increased procurement costs	Decrease in expenses	Small		0	

Physical risks

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Acute risks	Increased risk of disruptions to supply chain, including raw material procurement and product shipping logistics, due to increases in regional torrential rains and large-scale typhoons	Process automation Maintenance of diverse suppliers Strengthening cooperation with suppliers Enhancing plant production and quality control systems and in turn reducing product risks through means such as inspections of manufacturing contractors' plants, organization of all information concerning materials and products, and revising product standards and testing procedures	Decrease in expenses	Medium		0	
	Increased frequency of damage to facilities and increased repair costs due to abnormal weather and weather-related disasters Suspension of business activities due to damage to associated facilities, including those of the Company as well as collaboration research companies	Formulation of concrete guidelines for action in the event of a disaster	Decrease in expenses	Small	0		
Chronic	Depletion of water resources and water intake limits due to changes in rainfall patterns (reduction in profits due to reduced production capacity)	Evaluation of risks regarding existing site water supply security and water shortages as well as abnormal weather					0
U	Insufficient raw material procurement due to climate change	Maintenance of diverse suppliers				0	

Opportunities

Markets	If climate change progresses, food preservation and quality maintenance will increase in importance, and we would expect that demand for our quality and stability preservatives would increase	Development of quality and stability preservatives that enhance the preservability of foods while keeping their flavor will contribute to the improvement of food quality maintenance and lead to a reduction in food waste.	Increase in sales	Small		0
	Reduction in production costs through a variety of improvements to resource efficiency, including energy conservation, reduced water utilization, and waste disposal	Energy-saving production and process development through IoT utilization and the promotion of energy optimization in plants	Decrease in expenses	Small	0	

Large Impact on the relevant segments' operating profit is 30% or more Medium Impact on the relevant segments' operating profit is all least 15% but less than 30% Small Impact on the relevant segments' operating profit is less than 15%

WEB Disclosures based on the TCFD recommendations https://www.nippon-shinyaku.co.jp/english/sustainability/esg/environment/tcfd.php

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Strengthening Efforts to Protect the Global Environment

Promoting the Recycling of Resources

Basic attitudes and targets

Recognizing the limits of resources derived from natural capital, we at Nippon Shinyaku are constantly striving to reduce the amounts of resources we use, adopting various methods, including reuse and common use. We are also focusing our effort on the active use of recycled raw materials to ensure that the waste resulting from our activities is recycled or reused. We are working to reduce the quantities of waste generation and waste disposal in landfills, which are general indicators for the abovementioned efforts. We appropriately manage the quality of used water for discharge, including cooling water used at production sites, in compliance with applicable laws and regulations so that water sources will be safeguarded from pollution.

We have set and promote a long-term target of increasing the percentage of recycled waste plastic to 65% (in conformity with the goals set in the Voluntary Action Plan on the Environment – Creating a Sound Material-Cycle Society adopted by the Federation of Pharmaceutical Manufacturers' Associations of Japan) by FY2030.

Initiatives for resource recycling

1. Appropriate treatment and utilization of waste materials We recycle metals and collect and sort out plastic waste in compliance with the Waste Disposal and Public Cleansing Act*1 and applicable Kyoto City ordinances.*2

In the Head Office area and at the Discovery Research Laboratories in Tsukuba, we have adopted an integrated waste management WEB service (ASP service) capable of appropriate and continuous support to waste management. This enables us to confirm responsible waste treatment and disposal by our service providers. Furthermore, in the Head Office area, we disclose information regarding waste materials from time to time on the in-house intranet based on the KES*3 environmental management system standard.

- *1 Law concerning waste disposal and public cleansing
- *2 City of Kyoto's ordinances on reduction and proper treatment of waste
- ${\bf *3}\ Abbreviation\ for\ Kyoto\ Environmental\ Management\ System\ Standard, enforced\ by\ the\ specified\ non-profit$ corporation KES Environmental System since 1999. The number of registered companies exceeds 5,000.



WEB Promotion of resource recycling: current status and track record https://www.nippon-shinyaku.co.jp/english/sustainability/esg/ environment/resource_circulation.php

2. Reduced use of office paper

As a step in promoting paperless business operations, we are reducing our purchases of paper for printers and copiers as we proceed with the digitization of documents. We are also continuing to purchase more of our paper in accordance with our green purchase policy.

Furthermore, we are using paper more efficiently by installing multifunctional machines that have employee ID card certification functions as a way of both strengthening security and preventing wasteful printing by limiting printer and copier usage.

3. The Mottainai Project, a company reuse system

The Mottainai Project, which is an internal reuse system, was launched in September 2023. This project gathers unused or surplus equipment and supplies and offers them to departments where they are needed. This Company-wide platform is a proactive attempt to deal with the 3Rs of waste (reduce, reuse, and recycle) generated by offices.

4. Water consumption and risk assessment

Water consumption in FY2023 was 127 thousand m³ and Nippon Shinyaku was not involved in any cases of finable violations against laws or regulations on drawing or discharging water.

In the assessment of water stress at the three main business locations using WRI AQUEDUCT (3.0), *4 the Odawara Central Factory and the Discovery Research Laboratories in Tsukuba fell into a medium water risk area, and no business locations fell into a high water risk area.

*4 WRI AQUEDUCT (3.0): A set of water risk assessment tools developed and presented by the World Resources Institute (WRI

Water consumption (main business locations*5)



*5 Main business locations: Head office area, Odawara Central Factory, Discovery Research Laboratories in Tsukuba

5. Other

- We have joined the Plastics Smart campaign launched by Japan's Ministry of the Environment and are encouraging the use of personal bottles.
- We are trying to reduce the environmental burden from drug packaging by reducing waste while preserving product quality.
- Five percent of the palettes at our Odawara Central Factory are recycled palettes, and we plan to gradually expand their use in the future.
- We are reusing the coffee grounds from the coffee machines installed at our head office by having the Yamashina Botanical Research Institute use them as fertilizer.

Appropriate Management of Chemical Substances

Basic attitude and goals

For a pharmaceutical company that handles a variety of chemical

substances, their appropriate management is a vital social responsibility. At Nippon Shinyaku, we ensure responsible management of all chemicals, and a dedicated committee, established in compliance with the Company's Basic Regulations on the Management of Chemical Substances, clarifies the Company's policy in this regard so that chemicals are managed correctly by all departments. Thanks to our IT system that enables a comprehensive and exhaustive inspection of the status of legal and regulatory compliance concerning chemical substances, we maintain a responsible management mechanism concerning all chemicals handled in-house in conformity with the latest applicable laws and regulations. Furthermore, we regularly assess workplace risks, including those related to chemical substances, from the perspective of occupational health and safety to realize the highest level of workplace safety.

Also, we are reporting that we are practicing proper management in filings based on the pollutant release and transfer register (PRTR) system in the Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement.

Management of Highly Active Substances at Odawara Central Factory

The manufacturing plant for highly active solid formulations at the Odawara Central Factory is equipped with the latest triple containment structure. In this structure, highly active chemicals are contained first by equipment, second by air current and chamber pressure, and third by building, thereby preventing leakage into the external environment and taking maximum care for safety, quality, and environmental protection.

Conservation of Biodiversity

Governance

The Yamashina Botanical Research Institute is conserving about 3,100 plant species in addition to 160 species that are the botanical origins of herbal medicines recorded in the Japanese Pharmacopoeia. This includes about 480 specials of rare plants, such as 0.7% of Welwitschia, Aloe and other plants protected by the Washington Convention, 12% of plants on the Ministry of the Environment's Red List, and 5% of the plants listed in Kyoto Prefecture's Red Data Book. We have designated this non-local preservation as a material issue.

Description of specific programs

Botany education activities

The Yamashina Botanical Research Institute conducts awareness activities on preserving the diversity of useful plants and

frequently holds reservation-only tours, seminars for eminent plant experts, tours for pharmacology and agronomy students and pharmacists, and vacation day field trips and vegetable dye experience events for elementary school students. In FY2023, the Institute welcomed a total of 1,651 visitors.





Conservation activities for plants that have a place in traditional Kyoto culture

We conserve and propagate plants that have a place in traditional Kyoto culture, such as futaba aoi (Asarum caulescens) and kikutanigiku (Chrysanthemum seticuspe) and fujibakama (Eupatorium japonicum). Through the Aoi Project, a general incorporated foundation, we have dedicated 200 pots of futaba aoi to Kamigamo Shrine and provided seedlings to Kyoto City's Kikutani Forest of Flowering Chrysanthemums. We have also been accredited by the Kyoto Biological & Cultural Regeneration Project.

Survey of plants in the mountain and forests around Daigoji Temple, a World Cultural Heritage site

In June 2021, the G7 Nature Compact committed to the "30 by 30" initiative, whereby national governments will designate more than 30% of land and sea areas as protected areas by 2030. As a result, attention is being focused on temple and shrine forests as areas other than protected areas that can contribute to biodiversity conservation. In FY2022, Nippon Shinyaku inaugurated a survey of plants in the Daigoji Temple forest in the southern part of Kyoto City, and the survey was conducted six times in FY2023. So far, these surveys have found a total of 114 genera and 209 species of higher plants (of which 36 genera and 52 species were found in FY2023) and have identified two endangered species.

Ex situ conservation of the Japan-designated Natural Monument, ayumodoki

The ayumodoki (Parabotia curtus) is a freshwater fish endemic to Japan that has been drastically reduced due to environmental changes in its habitat and is now distributed only in the Kameoka Basin and Okayama Prefecture. Yamashina Botanical Research Institute collaborated with the Ministry of the Environment's conservation and propagation project and succeeded in raising ayumodoki naturally in artificial ponds within its park grounds. We will continue to help conserve valuable wildlife as part of our biodiversity conservation activities.