Nippon Soda Group **Integrated Report 2023**

Nippon Soda Group

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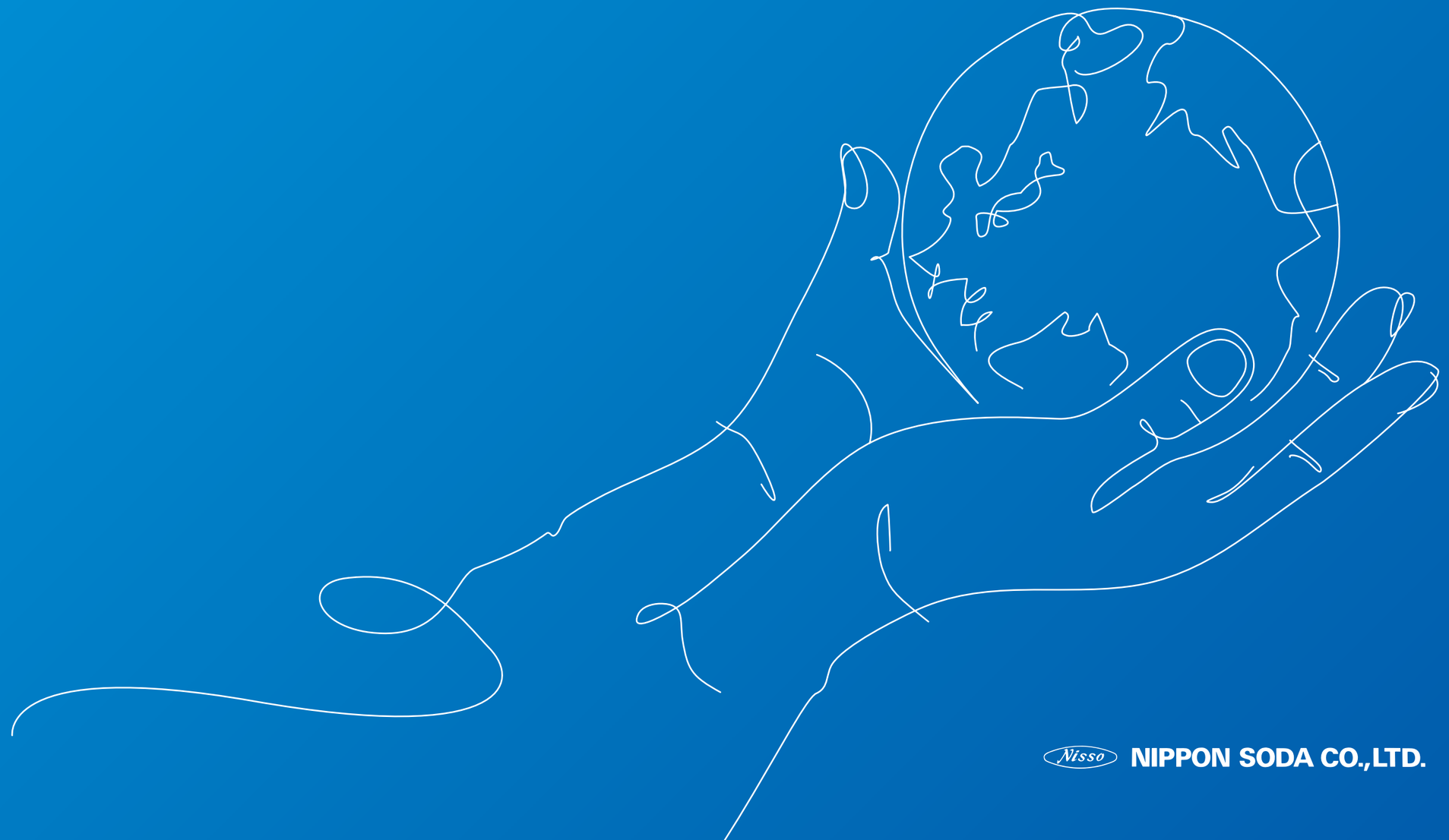

NIPPON SODA CO.,LTD.

For inquiries, views, and comments regarding *Integrated Report 2023*, please contact us via the following website.
https://www.nippon-soda.co.jp/e/contact/

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NIPPON SODA CO.,LTD.

Mission of the Nippon Soda Group

Create New Value through the Power of Chemistry and Increase Corporate Value by Contributing to Society

Our Challenge

The daily challenges of each and every employee lead to the realization of our mission.

Using the power of chemistry unique to Nippon Soda that has been passed down from my senior colleagues, I hope to contribute to increased food production on a global scale.

Asia Pacific Section
2nd. Overseas Business Department
Agro Products Division

From a management department perspective, I will work to enhance efficiency based on numerical analyses, and contribute to the improvement of groupwide value through proposals and suggestions to our Group companies and departments.

Administration and Accounting
Nisso Chemical Europe GmbH

By ensuring the stability of our manufacturing processes and reviewing operational procedures, I aim to reduce our environmental burden and improve customer satisfaction.

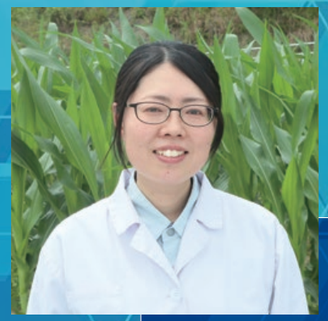
Manufacturing Department
Takaoka Plant

I hope to contribute to the achievement of a sustainable society by developing production technologies that are safe, secure, environmentally friendly, and highly efficient.

Nihongi Laboratory
Nihongi Plant

In the procurement of raw materials, my aim is to contribute to a sustainable future through the creation of an environment- and society-friendly supply chain.

Purchasing Department
Purchasing and Logistics Division



I will challenge myself to develop new agricultural technologies that can support sustainable food production with the power of chemistry.

Agricultural Field Evaluation
Research Department
Odawara Research Center

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Note: Unless otherwise indicated, values are rounded to the nearest increment.

Editorial Policy
Integrated Report 2023 comprehensively conveys the activities of the Nippon Soda Group to increase its corporate value, and achieve its medium- to long-term targets, in both financial and non-financial terms. When producing this *Integrated Report*, we strove to provide an easy-to-understand overview of our value creation process by referring to the *Guidance for Collaborative Value Creation 2.0* of the Ministry of Economy, Trade and Industry. Moreover, to ensure transparency and accountability, the contents of this *Integrated Report 2023* and our *ESG Data Book 2023* have been approved by the Corporate Social Responsibility Administration Meeting, which includes all Nippon Soda Directors as members.

Environment Social Governance
Guidance for Collaborative Value Creation

Period of This Report
April 1, 2022–March 31, 2023 (FY 2023)
Also contains some information from beyond this period.

Scope of This Report
Nippon Soda Co., Ltd. and Nippon Soda Group companies.

Third-party Verification
In the interest of ensuring the transparency and reliability of the information contained in *Integrated Report 2023* and *ESG Data Book 2023*, third-party verification has been performed by the Japan Chemical Industry Association.
ESG Data Book 2023 contains a statement regarding third-party verification.

Forward-looking Statements
Integrated Report 2023 includes forward-looking plans and strategies, as well as forecasts and outlooks for business performance. Please note that various factors may cause actual results to differ from these forecasts and outlooks.

Mission Realization Stories

Since its founding, the Nippon Soda Group has strived to fulfill its mission to create new value through the power of chemistry and increase corporate value by contributing to society. Here we introduce several examples of how we have accumulated value together with our stakeholders.

Creating Medicine That Is Easier to Take

NISSO HPC—
A Product That Continues to Meet Market Needs

Although Japan previously relied on overseas imports for the pharmaceutical additive hydroxypropyl cellulose (HPC), there was increasing demand from pharmaceutical companies for domestically produced HPC to ensure quality and stability of supplies. In line with this need, we began development of NISSO HPC and released it to market in 1969. In 1985, NISSO HPC was adopted as the standard formulation for wet granulation, becoming our leading binding agent in the process. Through careful communication with our customers and consistent responses to sophisticated quality requirements, sales of NISSO HPC continue to grow. Currently, we are working alongside employees from our overseas sites to build a global technological support system. In addition, we are collaborating with universities and other external institutions to provide technological data from advanced fields and maximize our value proposition.

Toward the Further Co-creation of Value

The viscosity and molecular weight of NISSO HPC differ by brand, and so it is important to choose the brand that is most suited to the application. The Cellulose Technical Application Center (CTAC) is responsible for ascertaining customers' diverse needs through dialogue, academic presentations, and technological seminars, and based on the data we have accumulated, we introduce recommended NISSO HPC brands and usage methods to help customers achieve their targets. CTAC also has the various equipment required for formulation studies, enabling us to co-create new value with our customers by having them visit the Center and working with them to examine the necessary solutions. I will continue working to develop easy-to-take formulations by responding to customers' diverse and additional requests.

Yuta Yamauchi
Technical Support Section
Pharma Chemical Business Department
Chemical Business Division

Joint research partner

Contributing to the development of formulation technologies through synergy between industry and academia

Hirofumi Takeuchi
Professor Emeritus
Gifu Pharmaceutical University

I have for many years been involved in R&D for people-friendly formulations, and have worked with Nippon Soda since 2004 on joint research related to NISSO HPC. Although the product's main ingredient, a cellulose derivative, is of natural origin and highly safe, it must be processed in a unique way for it to display the correct functionality. I believe that it is Nippon Soda's strengths as a chemical company, in particular its expertise on high-precision synthesis, that have enabled these processing technologies, and in turn the development of NISSO HPC. The Company also places value on communication in our joint R&D, respecting the results of our trials, quickly conducting research presentations overseas, and ensuring that we can come to smooth, mutual understandings. Today, simplicity in formulation design is often preferred when developing medicines, and so the development of materials that are easy to handle and make into tablets is paramount. Moving forward, I look forward to the Company's continued creation of high-quality NISSO HPC products and, as an additive manufacturer, its search for applications in new products. While continuing to make forward progress in the field of pharmaceutical additives, based on the globally competitive NISSO HPC, I have no doubt that Nippon Soda will develop into a leading company in the field.

Contributing to the Resolution of Food Problems through Safe and Secure Agrochemicals

MIGIWA (ipflufenoquin)—
A Quick Response to Farmers' Needs

In around 2015, apple scab disease had become an increasing problem in Aomori Prefecture due to the emergence of a fungus resistant to existing agrochemicals. In response, our new fungicide MIGIWA (ipflufenoquin), which can be used for both prevention and treatment, was chosen for priority review at the request of Aomori Prefecture as an important product for pest control. As a result, while the registration process usually takes around three years, we were able to register the product for use in just one year and three months. We then quickly set up the required production system, and in 2021 began sales of the product ahead of schedule in areas particularly impacted by the disease. In 2023, upon completion of our mass-production facilities, we began sales nationwide. As a result of our contribution to the apple industry, we received the Aomori Apple Award. As MIGIWA can be used on a wide range of crops and is effective against a wide range of diseases, in the future we will aim to enter overseas markets and develop it into a leading fungicide product.

Toward Global Sales Expansion

Motoaki Sato
Nisso America Inc.

The active ingredient in MIGIWA (ipflufenoquin), Kinoprol®, boasts new modes of action that are effective against fungi resistant to existing fungicides, and is therefore effective against a wide range of diseases. It has also been recognized as a product with Reduced Risk that has low environmental impact and that is comparatively safe for humans and non-target organisms. As such, due to its suitability for use as part of the integrated pest management approach, customers in North America have high expectations for the product. We simultaneously made progress with domestic and overseas development, and registered the product for use in North America for apple and almond diseases. MIGIWA (ipflufenoquin) has received particularly high acclaim for its effectiveness in tackling major apple diseases, and so our plan is to develop the product for use initially in the fruit industry. I will pour every effort into ensuring that MIGIWA (ipflufenoquin) continues to contribute to farms as a valuable pest control measure.

Producer

Illuminating the Future for Apple Farmers with the Power of Chemistry

In recent years, apple scab disease has been causing increasing damage and has become a major problem in the apple industry. With apple scab disease, filamentous fungi attach themselves to the plant and form lesions on the fruit and leaves. When it spreads, it can lower the quality of the fruit, causing the products to fall short of shipping standards. Moreover, the filamentous fungi remain in the soil for several years. The disease was scarcely seen from 2000 onward due to the development of a highly effective demethylation inhibitor (DMI) agent, but it reappeared around 2015. The reason for the rapid increase in apple scab disease can be attributed to the fact that the fungi developed a resistance to the previously effective DMI agent. At the time, around 80–90% of the apples affected would lose product value, and so in Aomori, where the majority of apple farmers are full time, it became a serious problem. As farmers were hoping for an effective agrochemical as quickly as possible, the outstanding effects of MIGIWA (ipflufenoquin) were confirmed via trials that had been ongoing since 2014. At the Minami District Apple Cultivation Guidance Cooperation Association, of which I am chairman, we worked with JA to conduct on-site trials, and decided to use the product. As farmers, our work is impacted by the weather, and the recent increase in abnormal weather patterns could give rise to new pests and diseases. I hope Nippon Soda continues developing new agrochemicals.

Toshio Sotokawa
Chairman
Minami District Apple
Cultivation Guidance
Cooperation Association
JA Tsugaru Mirai

History of Value Creation

Since its founding in 1920, the Nippon Soda Group has diversified into business fields such as agriculture, healthcare, the environment, and information. Furthermore, we have successively created products that meet the needs of the times. By using the power of chemistry to solve the issues facing society and by creating value with an eye on the future, we will continue to contribute to the creation of a society in which every person can live with peace of mind.

Historical Events

1914–1918 World War I
1929–1933 Great Depression
1939–1945 World War II
1954–1973 Period of high economic growth
1973 First oil crisis
1978 Second oil crisis
1985 Plaza Accord
1991 Collapse of Japan's bubble economy
2008 Global financial crisis
2012 European sovereign debt crisis
2020 COVID-19 pandemic

Changes at the Nippon Soda Group

Founding Period (1920–1944)

As demand for domestic manufacture of chemical products increased in Japan, Nippon Soda adopted a proactive management stance to overcome market uncertainties, leading to the research and commercialization of new products through technological innovations.

Early Period (1945–1969)

In order to respond to post-war shortages of daily necessities and social changes during the period of high economic growth, Nippon Soda embraced the challenge of development and commercialization in various new and existing fields. As a result, Nippon Soda was able to both contribute to improved lifestyles and achieve business growth.

Growth Period (1970–1994)

Even in uncertain times, Nippon Soda was able to open up new growth areas through new product development that utilized the wide-ranging technologies developed since its founding. And, by enhancing its overseas hubs, the Company was able to build a foundation from which to spread its technologies worldwide.

Development Period (1995–2023)

As globalization advances and environmental awareness grows, Nippon Soda will look to grow its business through proactive global expansion and new product development. By applying its technologies to the advanced material and environmental fields, the Company is working to create new value and solutions to achieve further globalization.

1913 Production R&D
Founder Tomonori Nakano received a patent for the Nakano method of salt electrolysis

1920 Production
Established Nippon Soda Co., Ltd. for business activities related to the manufacture of caustic soda and bleaching powder
Started operations at the Nihongi Plant (Joetsu City, Niigata Prefecture)

Nihongi Plant

1934 Production
Started operations at the Takaoka Plant (Takaoka City, Toyama Prefecture)

1959 R&D
Established the Biology Research Laboratory[1] (Oiso, Naka-gun, Kanagawa Prefecture; integrated into the Odawara Research Center in 1984) Point 1

Biology Research Laboratory

1969 Production R&D Sales
Started production of the fungicide TOPSIN (thiophanate) Point 2
Started production of the pharmaceutical additive NISSO HPC Point 3

1969 Production R&D
Started operations at the Mizushima Plant (Kurashiki City, Okayama Prefecture)
Established the Agrochemical Synthesis Research Laboratory[1] (Odawara City, Kanagawa Prefecture)

1970 Production R&D Sales
Started production of the resin additive NISSO-PB

1970 Production
Started operations at the Nisso Kasei Chiba Plant (currently the Chiba Plant; Ichihara City, Chiba Prefecture)

1972 Sales
Began capital participation in IHARABRAS S/A Indústrias Químicas (Brazil)

1974 R&D
Established the Fine Chemicals Research Laboratory[1] (Odawara City, Kanagawa Prefecture; developed into the Odawara Research Center in 1984)

1984 R&D
Established the R&D Laboratory for Functional Materials[2] (Ichihara City, Chiba Prefecture)
Established the Odawara Research Center[1] (Odawara City, Kanagawa Prefecture) Point 4

1991 Sales
Participated in the establishment of Novus International, Inc. (US)

1995 Production R&D Sales
Started production of the insecticide MOSPILAN (acetamiprid) Point 5

1997 Production R&D Sales
Started production of the semiconductor photoresist material VP-POLYMER
Jointly developed the next-generation antibiotic faropenem sodium together with Suntory Ltd. (currently Suntory Holdings Limited) and Yamanouchi Pharmaceutical Co., Ltd. (currently Astellas Pharma Inc.), and started production

2002 R&D
Established the R&D Laboratory for High-Functional Materials[2] (Ichihara City, Chiba Prefecture)

PYTHILOCK (picarbutrazox)

DANYOTE (acynonapyr)

MIGIWA (ipflufenoquin)

2004 Sales
Acquired the agrichemical business of Dainippon Ink and Chemicals, Inc. (currently DIC Corporation)

2010 R&D
Established the Chiba Research Center[2] (Ichihara City, Chiba Prefecture) (Integrated the R&D Laboratory for High-Functional Materials and the Production Technology Department of the Chiba Plant)

2011 Production
Established Nisso Namhae Agro Co., Ltd., a joint venture manufacturing company for active agrochemical ingredients, in South Korea

2011 Production Sales
Acquired Alkaline S.A.S., a French chemical manufacturer

2017 Production R&D Sales
Started sales of the fungicide PYTHILOCK (picarbutrazox)

2018 Sales
Acquired the plant health business of Zoetis Japan Corporation

2020 Production R&D Sales
Started sales of the acaricide DANYOTE (acynonapyr)

2021 Production R&D Sales
Started sales of the fungicide MIGIWA (ipflufenoquin)

FY 2023
¥172.8 billion

Net Sales

(Note)

1920 1945 1970 1995 **2023**

(Note) Due to a change in accounting standards, reporting of net sales changed from a non-consolidated basis (Nippon Soda Co., Ltd.) to a consolidated basis as of FY 2000.

1. Currently the Odawara Research Center
2. Currently the Chiba Research Center

Production Production technology capabilities to continue the stable, safe supply of leading niche products

R&D Research and development capabilities for continued enhancement of highly effective products

Sales Full understanding of market needs

Point 1

We were the first organization in Japan to build a private facility to assess the efficacy and toxicity of agrochemicals, and the facility garnered much industry attention. This facility later developed into the launch pad for many of our major agrochemicals, including the acaricides MIKAJIN and MILBEX and the fungicide TOPSIN.

Point 2

As society's interest in lower toxicity agrochemicals grew, we developed the low-toxicity fungicide TOPSIN. Moreover, the chemical analog TOPSIN M became the first Japanese-produced agrochemical to be registered under the especially strict standards of the United States Environmental Protection Agency. This success helped to drive the increase in our export of agrochemicals.

Point 3

Since its featuring in the Japanese Pharmacopoeia, uses of our pharmaceutical additive NISSO HPC have continued to increase, with it now being used as a raw material for cosmetics and a food additive. Today, we continue to reinforce our production capacity in line with increasing demand.

Point 4

For the development of new agrochemicals, we have built a highly efficient system that brings together three research processes—compound synthesis, efficacy assessment, and safety research—at one location.

Point 5

As a result of our proactive efforts to make improvements to cater to frontline requests and acquire registration for use for minor crops, our insecticide MOSPILAN (acetamiprid) has grown into a major product that can be used against the main pests for a wide variety of crops. Due to its minimal impact on the environment, MOSPILAN (acetamiprid) is the only agrochemical of its kind whose active ingredient has been registered in the EU, and sales continue to grow.

Value Creation Model

Based on our mission, "Create new value through the power of chemistry and increase corporate value by contributing to society," the Nippon Soda Group will endeavor to solve social issues, increase its corporate value and social value by providing chemicals and related services, and build value creation processes that achieve sustainable growth.

Create new value through the power of chemistry

Creating value together with our stakeholders

Megatrends

Population growth
Increase in food and feed production and improvement of production efficiency

Global warming
Increase in the incidence of crop pests and diseases

Improvement in living standards
Increased demand for pharmaceuticals and improved QOL

Social security cost issues
Increasing health consciousness and awareness of preventive medicine

Achievement of a sustainable society
Reduction of environmental burden
Building a resource recycling-based society

Progress in information and communication technologies
Popularization of smart devices
Rising needs for technological innovation

Input capital p. 08–09

- Financial capital
- Manufacturing capital
- Intellectual capital
- Human capital
- Social capital
- Natural capital

Business activities

Stage Ⅰ

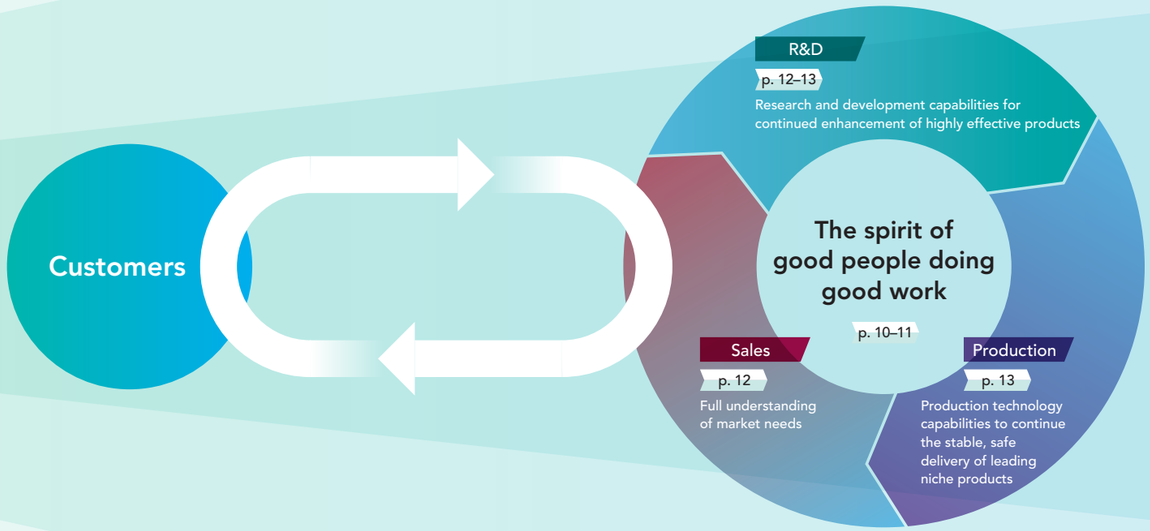
Stage Ⅱ
Medium-Term Business Plan: Brilliance through Chemistry Stage Ⅱ
p. 20–25

Stage Ⅲ

Long-term Vision
Brilliance through Chemistry 2030

Basic Strategy
Through growth investment that emphasizes ROI and thorough structural reforms, "Transition to a Highly Efficient Business Structure—Raise Our Profit Efficiency to More Than Double the Current Level"

Key Issues
- Enhancement of cost competitiveness and efficiency
- Expansion of overseas businesses
- Promotion of new product development and entry into new businesses



- Chemical Materials p. 30–31
- Agri Business p. 32–33
- Other Businesses p. 34
  Trading & Logistics, Engineering and Eco Solutions

Sustainability Management p. 36–37

Increasing Corporate Value | Increasing Social Value

Outputs

- Agrochemicals
- Pharmaceutical Additives
- Eco Business Products
- Specialty Chemicals

Outcomes

Increasing corporate value
- ROS (Operating profit on sales) target: **10% or more**
- ROA (Operating profit on assets) target: **7% or more**
- ROE (Return on equity) target: **12%**
  (Targets for FY 2030, the final year of our Long-term Vision)

Diverse human resources
- Employees outside Japan **2.5%** (FY 2023)
- Female employees **12.9%** (FY 2023) (Non-consolidated)
- Employees with disabilities **2.1%** (FY 2023) (Non-consolidated)

Progress toward enhancing competitiveness
- Improving core technologies
- Creating in-demand products and services
- Increasing market share

Reduced environmental footprint
- Reduced GHG emissions by **25.1%** (Compared with FY 2014) (Non-consolidated)
- Reduced energy use by **27.4%** (Compared with FY 2014) (Non-consolidated)

Materialities p. 24

- **Agriculture** Securing food and achieving sustainable agriculture — SDG 2 Zero Hunger
- **Healthcare** Healthy lives to all people — SDG 3 Good Health and Well-being
- **Environment** Toward a resource recycling society — SDG 6 Clean Water and Sanitation; SDG 11 Sustainable Cities and Communities; SDG 12 Responsible Consumption and Production; SDG 15 Life on Land
- **ICT** Applying the functionality of chemicals to IT devices — SDG 9 Industry, Innovation and Infrastructure

Six Types of Capital for Value Creation

Since its foundation, the Nippon Soda Group has continued to create new value using its accumulated management capital. We will continue to reinforce our various types of capital to help us achieve sustainable growth.

Financial Capital

ROS (Operating profit on sales) 10% or more

ROA (Operating profit on assets) 7% or more

ROE (Return on equity) 12%

(Long-term Vision KPI [FY 2030])

Implementing financial capital strategies that emphasize investment efficiency

- Through growth investments that prioritize ROI and thorough structural reform, we are promoting the transition to a business portfolio that is resilient to environmental changes and that produces stable earnings.
- We are driving capital policies that consider financial soundness while prioritizing a balance between growth investments and shareholder returns.

Challenges

- Investments in products and businesses that can enhance our ability to generate cash flows.
- Thorough implementation of appropriate investment risk assessments. Liquidation of products and businesses with inferior investment efficiency.
- Implementation of timely and appropriate shareholder returns.

Capital Reinforcement Policy

In addition to improving capital efficiency through the liquidation of unprofitable businesses, we will promote the expansion of high-added-value businesses, implement growth investments to enhance cash flows, and move forward with the transition to a highly efficient business structure. Moreover, in our new medium-term business plan we are targeting a total return ratio of more than 50%, and so while continuing with stable dividends, we will flexibly implement share buybacks.

Manufacturing Capital

Capital investments ¥40.0 billion

(In the three years of our medium-term business plan Brilliance through Chemistry Stage II)

Creating a business foundation using our advanced technologies and expertise

- Based on our sophisticated, proprietary production technologies including polymerization and powder handling technologies, in advanced fields such as pharmaceutical additives and semiconductor materials, we are promoting the differentiation of our products to satisfy increasingly sophisticated and complex quality and customer requirements on an even higher level.

Challenges

- Planned progression of construction work to increase production capacity of growth-driver products (Semiconductor photoresist material VP-POLYMER and pharmaceutical additive NISSO HPC).
- Streamlining of production processes and creation of optimal production systems ahead of the decline in Japan's working age population.

Capital Reinforcement Policy

Working with Group companies who own sophisticated plant engineering technologies, as well as through technological alliances with other companies, we will aim to enhance the synergies arising from our expertise and knowledge of manufacturing processes. Moreover, through use of digital and IoT technologies, we will aim to build a highly efficient production system through improved frontline operations, optimal production, and preventive maintenance.

Intellectual Capital

Owned patents 2,050

(FY 2023; non-consolidated)

R&D costs ¥6.31 billion

(FY 2023)

Advancing core technologies

- Our strengths lie in synthesis technologies, biological research, safety research, and formulation technologies for agrochemicals; polymer technologies that support the increased sophistication of ICT; and production technologies that support efficient production activities.
- We are working to create new value through the reinforcement and expansion of our platform technologies and the introduction of external technologies.

Challenges

- Advancement of core technologies through introduction of external technologies and promotion of digital transformations.
- Expansion into new domains in line with needs and reinforcement of technology marketing.
- Streamlining of patent portfolio to improve quality.

Capital Reinforcement Policy

We have set Food, Healthcare, and Advanced Materials as our new target domains. Through open innovation with external institutions in industry and academia, and the establishment of co-creation research facilities at which we conduct joint development with our customers, we will promote the advancement of our core technologies. We are also investing capital in material technology startups in the seed funding stage.

Human Capital

Employees 2,418

(FY 2023)

Average length of service 19.8 years

(FY 2023; non-consolidated)

Paid leave usage rate 77.0%

(FY 2023; non-consolidated)

Good people doing good work

- The source of our value creation is an unwavering passion to solve difficult challenges one by one. Our Company DNA has remained unchanged since our founding—Good people doing good work.
- We are promoting the creation of workplaces where personnel with diverse values and strengths can flourish and maximize their capabilities.

Challenges

- Improvement of employee motivation assuming the increasing difficulty in personnel acquisition due to declining birthrates and aging populations.
- Development of personnel who can support safe and stable production.
- Creation of a training system to transfer technologies and expertise to future generations.

Capital Reinforcement Policy

In our human capital management vision, Make Employees Brilliant, we are promoting employees' autonomy and growth, and aiming to provide flexible, efficient workstyles that enable them to maximize their capabilities. In doing so, we hope to create a positive cycle of value creation and employee fulfillment. Moreover, through experiential learning at the Nisso Technical Training Center, we are transferring manufacturing technologies and expertise, and developing personnel who can operate safe and highly productive manufacturing sites.

Social Capital

Overseas sales ratio 41.8%

(FY 2023)

Joint research projects with universities 9 projects

Global hubs 17 sites

Sustainable development through co-creation with society

- By creating partnerships across the world and collaborating with industry and academia, we are developing innovative technologies.
- We are striving for coexistence with local communities around our business hubs.
- We are building an environment- and society-friendly sustainable supply chain.

Challenges

- Global business expansion through collaboration between our global hubs.
- Promotion of social contribution activities aimed at coexistence with and the development of our local communities.
- Promotion of environment- and society-friendly business activities through constructive dialogue with our partners.

Capital Reinforcement Policy

In addition to collaborating with local staff at our overseas hubs to understand market trends in each region, we are working to enhance our technical services through additional deployment of technical staff. We are also promoting joint research with research organizations in industry and academia across the world. For the procurement of raw materials, we make sure to monitor our suppliers and are working to build a society- and environment-friendly supply chain.

Natural Capital

Energy consumption (crude oil equivalent) 68.8 ML

(FY 2023; non-consolidated)

Water usage 17.3 million tons

(FY 2023; four domestic Nippon Soda plants)

Environmentally friendly, sustainable business activities

- We are promoting our business activities with a focus on Responsible Care, which ensures consideration for the environment, safety, and health.
- While minimizing environmental risks in our manufacturing processes and throughout our supply chain, we are striving to reduce our GHG emissions.

Challenges

- Continuous promotion of energy-saving measures to fulfill our responsibility as a company that consumes energy in the manufacture of chemical products.
- Increase in burden on personnel and costs so as to ensure compliance with stricter laws and ordinances in line with rising environmental awareness.
- Carbon neutrality initiatives.

Capital Reinforcement Policy

Through Responsible Care activities, we strive to minimize the impact that our chemical products have on the environment in every process from development and manufacture to distribution, use, final consumption, waste, and recycling. Furthermore, alongside the development of technologies for hydrogen—which is seen as a next-generation energy source—we are also promoting the creation of a decarbonized society through the protection of forests, which function as carbon sinks.

Source of Value Creation—The DNA of Nippon Soda

Nippon Soda's Unchanging DNA—The Spirit of Good People Doing Good Work

The source of value creation at Nippon Soda can be found in the Company's unceasing efforts in R&D, the technological capabilities that have responded to market changes in each era, and the people that have upheld these activities. Looking back, the strengths and ideas of our founding spirit have been carried forward to today and continue to flourish. In today's era of diverse change and constant challenges, company growth is supported by our DNA—a confidence that we will choose the correct path without wavering from our convictions, and a passion for research and technology that can solve difficult problems one by one.

Origin of the Company Emblem

The Company emblem for Nippon Soda is a snow rabbit. Specifically, it is a white hare surrounded by a hexagonal snowflake. The emblem is based on the following episode. In the winter of 1920, shortly after the Company's founding, a meeting was being held at the Nihongi Plant in Niigata Prefecture in regard to the logo to be used on product containers. Suddenly, a pure white rabbit jumped into the room, ran around, and then disappeared outside.

At that time, our Company's main products were caustic soda and bleaching powder. In the case of these products, a higher purity results in a purer white color. Therefore, the pure white rabbit represented the high quality of our products. Furthermore, rabbits excel at running up mountains but not running down. This was a perfect symbol of Nippon Soda at that time, in terms of how we were striving to become a growth company with high-quality chemical products that are not affected by recessions. The six sides of the hexagonal snowflake represent the following ideals: honesty, industriousness, originality & ingenuity, cooperation, service, and gratitude.

This is a perfect anecdote for Nihongi City, Niigata Prefecture, which receives some of the heaviest snowfall in Japan. Furthermore, this episode is linked to the world of chemistry, where facts, chance and ideas are all linked together.

Although favorable conditions did not exist at the time of our founding, we were able to overcome adversity with the spirit of "Good people doing good work."

Nippon Soda was founded in 1920, a period of great recession after World War I. Furthermore, many more difficulties were lying ahead. Conversely, it was also an era when Japanese industry was heading for development. The unceasing efforts for improvement, innovation, and research and development led to the development of today's Nippon Soda Group. These efforts were supported by valued employees. The spirit of "Good people doing good work" is still alive today.

Words from our founder Tomonori Nakano

In no way does the Nihongi area present any advantages for industry in terms of transportation, terrain, or supply and demand. Furthermore, during one-third of the year, the area suffers from heavy snow that completely buries homes. Shortly after our founding, Nippon Soda faced the Great Depression after World War I. There was no conglomerate backing our company. Indeed, Nippon Soda was founded in a very disadvantageous era. Nevertheless, we were blessed with one thing—the human element. Our employees joined together and worked with great devotion. Even though I was a managing director, together with the factory manager, we would don dirty clothes and crawl under the machines. We worked both day and night. Thanks to these efforts, we were able to build outstanding products and launch them on the market. It was also fortunate that we worked in the chemical industry, which had the highest demand of any industry in Japan. It can also be said that we possessed an exceptional spirit toward business and policy toward management.

The chemical industry must constantly adapt to advances in science and evolve into more efficient methods. We have always maintained our commitment to improving and innovating our equipment and operation, and to researching and industrializing new products. In some areas, our business moved ahead of the scientific principles. Even when the existence of our company was in danger due to extreme financial difficulties, we actively encouraged these kinds of technological advancements. "Good people doing good work." This was the greatest strength of Nippon Soda. As a result, we were able to overcome our inconvenient location, damage from snow, and industry stagnation.

"Celebrating the 20th Anniversary of Our Company" (*Nippon Soda Company Newsletter*; May 1940)

The DNA of Nippon Soda

From our founding to the present, a large number of outstanding engineers have supported the growth of Nippon Soda and driven our recovery from difficult predicaments. During World War Ⅱ, we were placed under military supervision and forced to respond to development requests in different fields. There is an anecdote that says when the German airship Zeppelin flew to Japan, Nippon Soda was responsible for the emergency supply of depleted high-purity hydrogen. At that time, only Nippon Soda was able to supply such a large amount of high-purity hydrogen.

After the war, the Company continued to face difficulties as it was unable to settle upon its products and business fields. However, even under these circumstances, the Company was committed to launching new businesses. In 1950, we submitted Japan's first petrochemical business plan to the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry). However, due to the pioneering nature of the plan, we were unable to receive financing from banks and were forced to abandon the plan. The plan was ahead of its time and was eventually recognized and highly evaluated as having played a leading and enlightening role in the petrochemical industry.

After that, Japan entered a period of high economic growth. Even though Nippon Soda's sales grew, we continually failed to secure profits due to the interest burden associated with large capital investments. Under these circumstances, engineers focused their research and development in a new direction, namely on fine chemicals such as pesticides and polymer fields centered on urethane. We promoted a shift from quantity to quality. These efforts eventually led to the creation of high-added-value products.

The Nippon Soda Group has been willing to invest in technology even in difficult times, and our engineers have worked hard to develop new products, strengthen cost competitiveness, establish overseas production technology, and reduce our environmental burden. This spirit has been inherited as the DNA of the Group and is the driving force behind all that we have accomplished. The Nippon Soda Group will continue to "contribute to society through the power of chemistry" and realize a future of Brilliance through Chemistry based on technological capability and passion.

Passing On the Company's DNA Through Digital Transformations (DX)

Due to declining the birthrate and aging population, labor shortages are becoming a major social problem in Japan. At Nippon Soda, too, we were seeing an imbalance between the number of experienced employees who could guide our junior employees and the number of new employees, and transferring our technologies to next generations was becoming an issue. Some elements of field technologies can only be taught on the spot. For example, at the Chiba Plant, we provide learning opportunities during our annual maintenance, however, missing these opportunities would lead to a lack of understanding. Moreover, although senior employees could help out when junior employees came up against issues in implementing the techniques they had learned, it was not an efficient process. In response, we added videos to our procedure manuals, which previously comprised text and photos alone, enabling users to visualize on-site situations and learn through on-screen instructions. To date, we have created 70 different videos. The idea to create these videos came from a discussion among field personnel on operational improvements at a time when smartphones were introduced for company use. Although at the Chiba Plant we were already actively promoting DX, for this project, junior employees predominantly in their 20s took the lead through a collaborative project. We now have QR codes on each piece of equipment, and scanning these as and when necessary brings up videos showing procedures and key points. As the manufacturing workforce is expected to shrink, using DX to smoothly transfer technologies is essential. With this project as a springboard, we will enhance our site-led DX initiatives, actively work on further improvements, and accelerate companywide DX by deploying our successes horizontally across the organization.

We will strive for the accurate transfer of our accumulated technologies to the next generation.

Riku Wada
DC Unit,
Manufacturing 2nd Section,
Manufacturing Dept., Chiba Plant

Shun Taki
DX Kaizen Promotion,
Production Management Section,
Manufacturing Dept., Chiba Plant

Strengths That Support Our Value Creation

Creating Value through the Constant Enhancement of Technologies and Understanding of Market Needs

Understanding Market Needs

By effective utilization of the underlying and core technologies we have accumulated over a century, and a thorough understanding of market needs, we have made further progress in product development, technological improvement, and market development

Use of our core technologies and our understanding of market needs has enabled our products to continue evolving. As a result of this constant evolution, we have developed new products, improved technologies for our existing products, and developed new peripheral markets.

In April 2021, we consolidated and integrated the operations of the Odawara Research Center and the Chiba Research Center to further generate innovation. We are now working to combine technologies through the Odawara Research Center's R&D on agrochemicals and the Chiba Research Center's R&D on chemical products.

For the development of agrochemicals, we have a research structure in place to advance every process from basic research to field trials. One of our major strengths is our ability to carry out highly efficient and swift R&D, and product development that combines research and evaluation. For chemical development, we have created a structure that enables us to undertake everything from the development and commercialization of functional chemical products using our proprietary technologies, to research on improvements and optimizations.

Looking ahead, we will reinforce collaboration between our marketing, technology, service, manufacturing, and other departments to further improve our R&D structure.

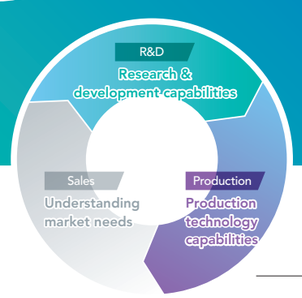
Capabilities in Research & Development and Production Technology

Through improvement of the research and development and production technology capabilities we have accumulated over a century, we have created a safe, secure, stable production system that is highly efficient

At our production technology research centers, which we have in place at each of our plants, we are engaged in diverse technological development and engineering research. Our strengths lie in our ability to work with our research departments to develop highly productive proprietary manufacturing technologies.

Beginning in 2019, we have been working to build a system that enables efficient use of experimental equipment and allocation of human resources engaged in research. Furthermore, a new research building that consolidates and integrates research facilities at the Takaoka Plant and the Nihongi Plant is scheduled for completion in 2022. The Nippon Soda Group is also accelerating product development by strengthening synergies with manufacturing process expertise and manufacturing know-how, and by improving operational efficiency.

To respond to market needs, it is essential that we combine the research and development capabilities that allow us to continuously improve on our effective products with the production technology capabilities that deliver leading niche products to our customers safely. With safety and security our foremost priority, we are working to make continuous improvements to our production technologies and in turn build an even better production structure.

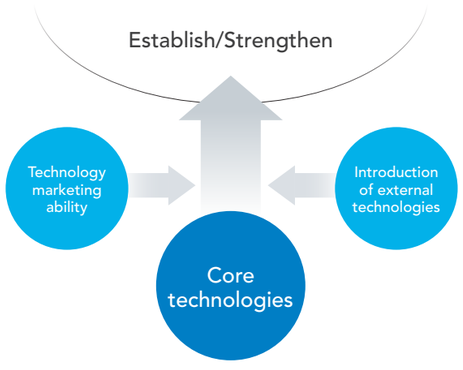


Understanding Market Needs

Establishing and Strengthening Core Technologies to Bolster Existing Businesses and Create New Businesses

The Nippon Soda Group possesses many excellent core technologies. However, when considering future market needs and changes in the social environment, it is essential to introduce new technologies, as well as to establish and further strengthen core technologies. Therefore, we will strengthen our technology marketing abilities, broaden our assessment and understanding of new needs, and establish a system that can respond more flexibly.

By collecting information from various chemical markets, analyzing technological trends in each field, and examining solutions that cater to needs brought about by social change, we are unearthing new possibilities while staying alert to trends in even more areas. On top of that, we will create new value by improving and increasing the sophistication of our proprietary technologies, and by developing new technologies while cooperating with external parties.



HIGHLIGHT

Capturing Market Needs from a Broad Perspective

In agrochemical research, I believe it is very important to build an understating of market needs from the research stage and settle on an image for the final product. I therefore prioritize explicit market needs as well as latent needs including those that could arise from changes in the market environment. Specifically, in addition to the explicit needs that are picked up by sales staff from actual production frontlines, we strive to uncover latent needs through participation in academic conferences, lectures, domestic and overseas frontline visits, and discussions with colleagues, for example, and then work to incorporate our findings into development policies. I believe that each Nippon Soda researcher has a great awareness of the importance of these two different types of needs, and that we have developed a research environment in which we can express our different opinions.

Fumiya Nishio
Biological Research Department, Odawara Research Center

Responding to Market Needs

Accelerating R&D Using External Technologies

In creating new businesses, open innovation is key—that is, making use of not only internal resources, but also external research resources and technologies. At Nippon Soda, we are promoting open innovation through collaborations with external institutions in industrial and academic circles.

Themes	Progress, Results and Outlook	Nippon Soda's Strengths
Development of a new porous material with a metalorganic framework (MOF) (An industry-academia collaboration project with Prof. Mao Minoura and his research team from the Chemistry Department of the College of Science at Rikkyo University)	▸ We hope to be able to mass-produce MOF materials that could be used in hydrogen gas tanks and other clean energy options	Synthesis technologies accumulated through our development of agrochemicals, and production technologies
Development of a platinum-tungsten solid solution alloy nanoparticles (Joint research with Prof. Hiroshi Kitagawa and his research team from the Graduate School of Science, Kyoto University)	▸ When used in the electrolysis of water, this technology can generate a hydrogen evolution reaction that achieves the world's highest level of catalytic activity ▸ We are currently engaged in efforts aimed at social implementation	Processing technologies to particulate and disperse metals
Development of a new compound for thermally activated delayed fluorescence (TADF) material, a next-generation organic electroluminescence material (Joint development with Kyulux, Inc.)	▸ Kyulux, Inc. has enhanced the performance and quality of its TADF material, and greatly improved production efficiency of the new compound ▸ The compound will help us gain a foothold in the organic electroluminescent display business	Long-accumulated, advanced organic material development capabilities and synthesis know-how
Optimization of manufacturing process through the continuous flow method (Joint development with Active Pharma Co., Ltd. and Prof. Shu Kobayashi and his research team from the Graduate School of Science, The University of Tokyo)	▸ Establishment of a stable manufacturing process that meets high quality standards using the continuous flow method ▸ Significant reductions in plant size enable reductions in required manpower and capital expenditure, leading to manufacture of agrochemical ingredients that is highly cost competitive	Manufacturing track record in agrochemical intermediates due to commercialization of flow method at a Group company in 2016

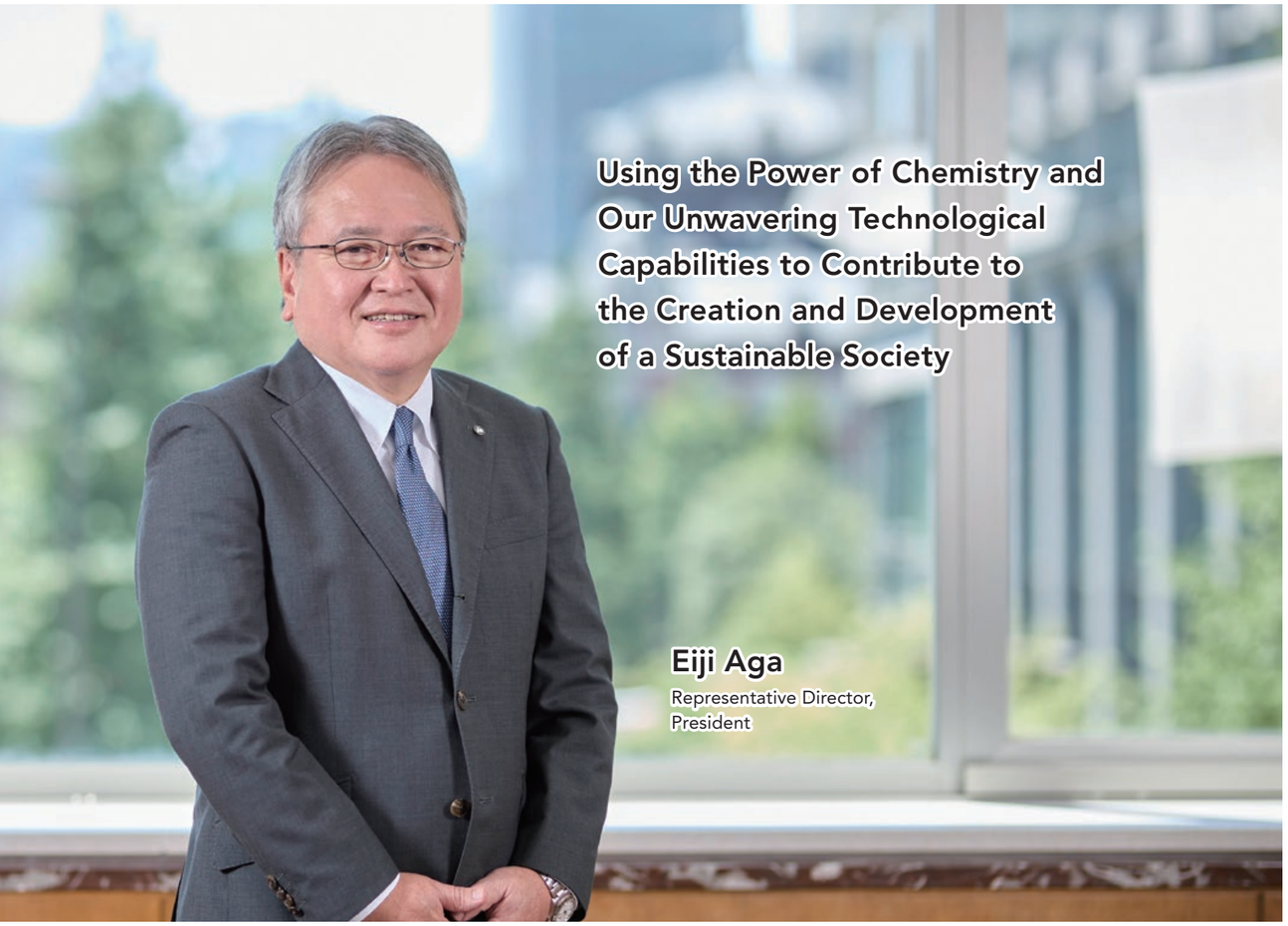
HIGHLIGHT

Responding to New Market Needs Through Collaboration with External Institutions

The New Business Planning & Development Department is in charge of developing new businesses in the food, healthcare, and advanced materials domains that we have set out in our Brilliance through Chemistry 2030 research and technology strategy. Acquiring new technologies outside our expertise is essential to developing new businesses, and so we are working with partners at universities and startups. The aim is to combine the outstanding technologies of these partners with the synthesis technologies we have accumulated in the manufacture of agrochemicals and materials, our scaling expertise in commercialization, and our various evaluation technologies to develop entirely new technologies. In this way, we are working to respond to changing needs in new markets and commercialize major projects in new business domains.

Kazuhisa Kumazawa
New Business Planning & Development Department

Message from the President



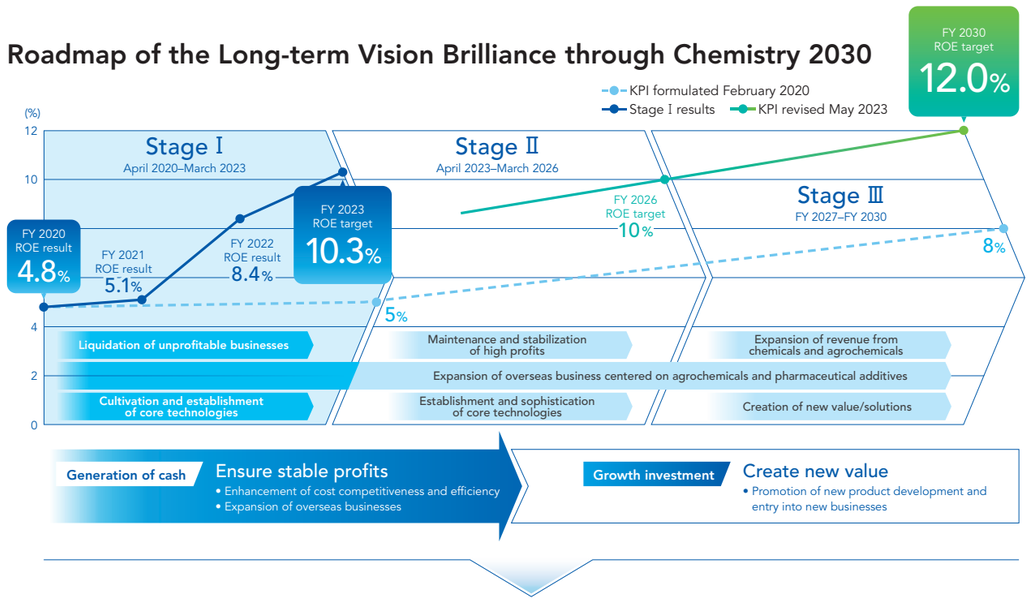
Achievement of All Numerical Targets in Medium-term Business Plan Stage Ⅰ

Continuation of Growth Investments and Efforts to Reinforce Our Management Foundation

It has now been approximately two years since I assumed the role of president in April 2021. Our business environment has been impacted by the Russia–Ukraine situation and economic friction between the US and China, and as a result the future remains uncertain. Despite these circumstances, at the Nippon Soda Group we have implemented a range of measures with full force to improve our corporate value and achieve the targets in our Long-term Vision Brilliance through Chemistry 2030 (FY 2021–FY 2030), and our medium-term business plan Brilliance through Chemistry Stage Ⅰ (FY 2021–FY 2023). As a result, in FY 2023, the final year of our Stage Ⅰ medium-term business plan, net sales totaled ¥172.8 billion (up 13.3% year on year), operating profit came to ¥16.9 billion (up 41.6% year on year), ordinary profit stood at ¥26.5 billion (up 60.2% year on year), net profit was ¥16.7 billion (up 31.6% year on year), and ROE was 10.3%. These results mean that we achieved all the numerical targets in Stage Ⅰ. Although external factors such as the weak yen helped drive this success, the expansion of our growth-driver businesses—the pharmaceutical additive NISSO HPC, the semiconductor photoresist material VP-POLYMER, and our new proprietary agrochemicals—progressed as planned, and the steady liquidation of our unprofitable businesses enabled us to reform our business portfolio and significantly increase our profit ratio. The liquidation of our unprofitable businesses saw us withdraw from the electrolysis businesses related to caustic potash at the Nihongi Plant (Joetsu City, Niigata Prefecture), of which we began production in 1929, and suspend sales of caustic potash, potassium carbonate, and other related products. Elsewhere, we transferred all shares of our former consolidated subsidiary Alkaline S.A.S., which was engaged in the manufacture and sale of sodium metal and chlorine in France. On the other hand, as part of our growth investments to increase cash flows, we completed construction work as planned aimed at increasing production capacity for our pharmaceutical additive NISSO HPC, as well as for the mass production of our new fungicide MIGIWA (ipflufenoquin). Regarding shareholder returns, we implemented a significant dividend increase and achieved our dividend payout ratio target of 40%. We also purchased and cancelled treasury shares in a timely manner. Without room for complacency, I believe it is my duty to maintain this strong performance into our new medium-term business plan Brilliance through Chemistry Stage Ⅱ, and achieve further improvements in our corporate value.

The mission of the Nippon Soda Group is to "Create new value through the power of chemistry and increase corporate value by contributing to society." To fulfill this mission, through our Long-term Vision Brilliance through Chemistry 2030, we are working to transform and enhance our business portfolio into one that is resilient to changes in the business environment and that generates stable earnings. We will also shift from a management style that is focused on measures of profit/loss to one focused on ROI, and while expanding our high-added-value businesses and moving forward with the liquidation of our unprofitable businesses, we will thoroughly enhance management efficiency and transition to a highly efficiency business structure. At the same time, we will work to refine our core technologies by enhancing our proprietary technologies and creating synergy with external technologies, and looking ahead to beyond our Long-term Vision, promote the development and creation of new products and businesses. In terms of our vision for ten years in the future, we are targeting more than 10% in ROS (operating profit on sales), more than 7% in ROA (operating profit on

Roadmap of the Long-term Vision Brilliance through Chemistry 2030



We will generate stable cash flows in existing businesses and create new value through growth investment.

assets), and ROE (return on equity) of 12%. With the increasing severity of geopolitical risks and climate change, and rising inflation caused by the continuing depreciation of the yen, we are facing a challenging business environment. Despite this, we will hold onto our century of tradition and strive for business innovation.

In our new medium-term business plan Brilliance through Chemistry Stage Ⅱ (FY 2024–FY 2026), we will seek to maintain the increase in profitability we achieved in Stage Ⅰ, and move forward with the expansion of high-value-added businesses to ensure even greater profitability in Stage Ⅲ. At the same time, through growth investments and structural reforms focused on capital efficiency, we will aim for further improvements in profit. Elsewhere, through our Brilliance through Chemistry 2030 research and technology strategy, we will aim to establish and advance our core technologies and create new businesses. In terms of growth investments, on top of the work we have already begun to increase production capacity for the semiconductor photoresist material VP-POLYMER, we will progress as planned with work to increase capacity for our pharmaceutical additive NISSO HPC, and reinforce and expand our existing businesses and peripheral domains through business partnerships and M&As. Meanwhile, our policy for shareholder returns will be to target a total return ratio of more than 50%, and continue with stable dividends and the purchase of treasury shares. For more details, see p. 20–25

Four Materialities to Tackle Social Challenges

In our Long-term Vision Brilliance through Chemistry 2030, we have identified four materialities that will enable us to contribute to the development of a sustainable society and improve our corporate value: Agriculture, Healthcare, Environment, and ICT. For more details, see p. 24

Agriculture

As a research and development company, to date we have launched numerous proprietary agrochemicals to market. With growing needs for improved efficiency in food production due to the increasing global population, and an expected increase in crop pests, diseases, and weeds due to global warming, we recognize that chemical pesticides are essential to ensuring global food supplies. Elsewhere, in line with the Sustainable Food Systems Strategy “MeaDRI” published by the Ministry of Agriculture, Forestry and Fisheries, and the Farm to Fork Strategy in Europe, agrochemical standards are becoming stricter by the year. When looking back on my time in France, there was a certain level of demand for organic products that did not use chemical pesticides and fertilizers. However, with today’s technologies, it is not possible to supply food using biopesticides alone, without using chemical pesticides. This is why we believe it is our duty to focus on the development of new biopesticides alongside the development of low-risk and highly effective chemical pesticides to offer end-consumers peace of mind. The challenges that come with developing agrochemicals are increasing year on year, but in recent years we have been able to release three new proprietary agrochemicals to market, while we also have several promising compounds in our development pipeline. Moving forward, through our unrelenting frontline efforts and our technologies, we will strive to contribute to stable food supplies and sustainable agriculture.

Healthcare

In addition to being highly safe, our pharmaceutical additive NISSO HPC has a range of excellent functionalities. As such, it is highly regarded throughout the pharmaceutical industry, and is increasingly being used in supplements and other food-related products. With demand growing quicker than expected in recent years, although we have just commenced operations after increasing our production capacity in 2021, we have begun work on a new production line ahead of further capacity increases in 2026. NISSO HPC is highly effective in drug delivery systems, which efficiently deliver medicine throughout the body, and its outstanding binding force can help to reduce tablet sizes. The additive therefore helps to support people’s health while improving quality of life.

Environment

Since our founding, we have contributed to stable water supplies through water processing technologies based on the chlorine that is generated through electrolysis. We also supply HIDION, a heavy metal fixative for fly ash treatment at waste incineration centers, and in doing so are contributing to the reduction of the environmental impact caused by waste. Elsewhere, our consolidated subsidiary Nisso Metallochemical Co., Ltd. collects zinc and other valuable metals, recycles used sulfuric acid, and provides various other environmental solutions using its high-difficulty waste treatment technologies, contributing to the creation of a sound material-cycle society.

ICT

Using our proprietary precision polymerization technology and organic synthesis technology, we are focusing on the development of new materials required for the electrification of vehicles and the promotion of autonomous driving, and the shift to higher speed, larger capacity smart devices and telecommunications technologies. Elsewhere, our resin additive NISSO-PB was the world’s first product to be commercialized using our proprietary living anionic polymerization technology. Meanwhile, demand for VP-POLYMER, a KrF photoresist material for semiconductors that we developed using the same technology, is expected to grow further, and so we are working to double our current production capacity. Developed using the same technology, we have also released 1,2-SBS for the next-generation telecommunications devices market, and using this material we are supporting technological innovations in information and electronics.

Moving forward, we will work to create new value in the four fields we have identified as materialities—Agriculture, Healthcare, Environment, and ICT—and in turn contribute to solving social issues and increasing corporate value.

The Technological Capabilities of Nippon Soda Standing Side by Side with Leading Companies in Global Niche Markets

Based on the power of chemistry and our proprietary technological capabilities, we have created numerous businesses in niche domains. Through strategies that have targeted gaps in the market, one of our greatest strengths is our ability to focus on fields in which there are few competitors. Although we already have numerous outstanding core technologies to take on global niche markets, if we consider future changes in market needs and social environments, in addition to enhancing our existing core technologies, it will be essential to introduce and enhance new technologies. Without relying on precedents and our own capabilities, we are actively forming alliances with external partners through investments in startups and technological partnerships, for example, and multiple projects are currently under way. Moreover, to reinforce and expand our existing and peripheral businesses, we are promoting business partnerships and M&As. Using my experience in acquiring an overseas company and in my ensuing role there as a local member of staff, I will look at M&As from a broad perspective both inside and outside Japan. In our overseas business expansion, in Agri Business, while working with local staff to understand market trends in each region, we are promoting development and the expansion of applications. In addition, in the pharmaceutical additive business, we are deploying technical staff to business sites in Europe, the US, India, and other regions where demand continues to grow, and are working to expand applications through collaboration with research institutes around the world and co-creation with our customers at in-house collaboration facilities. Currently, based on our Brilliance through Chemistry 2030 research and technology strategy, on top of efforts to quickly commercialize new businesses, we have set up the New Business Planning & Development Department under my direct control as president. Through the department’s activities we have set ourselves the ambitious target of creating businesses that can contribute ¥10 billion toward net sales and ¥1 billion toward operating profit by 2030, and are making progress with the relevant R&D and business creation activities.

Elsewhere, the fusion of our proprietary technologies is another important theme. To accelerate the development of new products, in April 2021 we integrated the operations of the Odawara Research Center and the Chiba Research Center. This

move has helped to strengthen mutual collaboration between R&D for agrochemicals, as well as R&D for chemicals for functional and electronic materials. For the development of agrochemicals, we have a research structure in place to advance every process from basic research to field trials. One of our major strengths in this area is our ability to link evaluation and research and carry out highly efficient and swift product development. For the development of chemicals, we have created a structure that enables us to undertake everything from the development and commercialization of functional chemical products using our proprietary technologies, to research on improvements and rationalization. Looking ahead, we will reinforce collaboration between our marketing, technology, service, manufacturing, and other departments to further improve our research and development structure. For more details, see p. 26–27

Bringing Employees and Management Closer Together and Facilitating the Success of Individuals with Diverse Personalities and Values

Human capital is one of the most important elements of our management foundation as we aim to achieve sustainable growth. Unquestionably, it is people who are responsible for carrying on our technologies and generating innovation. For us to achieve our Long-term Vision and respond to social requirements including ESG management and initiatives to contribute toward the UN SDGs, more important than anything will be the individual capabilities of our employees, and their ability to demonstrate their strengths in business and work toward targets. To coincide with our new medium-term business plan Brilliance through Chemistry Stage Ⅱ, we have also formulated a new human capital management vision, Make Employees Brilliant. Through this vision we are promoting employees' independence and growth through flexible, efficient workstyles, and aiming to create workplace environments where employees can work with pride and that facilitate a positive cycle of value creation and employee fulfillment.

I often communicate to our workforce the importance of being considerate but not reserved. We do not need people who simply follow instructions. We want employees to express their ideas and think about matters for themselves. We value direct feedback, and so in addition to implementing engagement surveys and investigating employees' expectations and level of satisfaction, we also host the Free Talk Square, which is an opportunity for company directors to listen to employee feedback and requests while also engaging in informal chat. The Free Talk Square was set up voluntarily by directors based on their desire to create a more open workplace environment. I also make every effort to travel to our worksites and converse with our employees. Nippon Soda alone is home to around 1,300 employees, and I believe that activities like these are helping to enhance our face-to-face relationships and revitalize communication between employees and management.

For a while now, systems that encourage employees to put forward their ideas have been in place at our plants and research centers. These systems have created a culture that values frontline opinions and in which new ideas are generated. An in-house culture that enables anyone to express their opinions without reserve is key to corporate growth, and the presence of diverse individuals and their exchange of opinions will lead to corporate development. To ensure that employees' ideas are not rejected based on the judgement of their senior colleagues alone, we are striving to create an organization that allows for free and open interaction and that is brighter and more energetic than ever before. Looking ahead to sustainable growth beyond our Long-term Vision, we hope to be a company that former employees can continue to look back on with pride and positivity.

We are also focusing on the maintenance and improvement of employee health as an important management issue, and our initiatives have been recognized by the Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500) for six consecutive years. At Nippon Soda, although we are a company of tradition, we will also actively engage in new initiatives such as the hiring of senior executives from outside the Company. Moving forward, regardless of gender, age, nationality, ability or disability, or any other background, we will create systems that allow every individual to thrive, and workplaces where everyone can work with peace of mind.

My hope is that our junior employees can take on as many new challenges as possible. Looking back on my own career, using my experience working in Europe I was able to boldly try different things at my own discretion. While maintaining thorough compliance and respecting internal control and approval processes, among other measures, I hope to encourage employees to think of everything as an opportunity and endeavor to try new things. In November 2023 we are relocating our head office. Ahead of this move, we set up a taskforce consisting mainly of junior employees to think about how to improve operational efficiency, creativity, and workforce unity. As a result, we have designed a highly creative office layout that will further improve employees' motivation to visit the office. Although introducing unassigned seating plans at our offices and work-from-home systems at our plants and research centers is an issue for the future, we will also aim to accelerate our workstyle reforms in terms of institutional aspects. I believe that our creation of an environment in which employees can be frank in their discussions has increased employee fulfillment and pride.

Carrying Forward a Century of Tradition to Pave the Way for the Next 100 Years

In 2020, we formulated our Long-term Vision Brilliance through Chemistry 2030 to outline our vision for ten years into the future. However, Nippon Soda will of course continue well beyond 2030, and so it is essential that we steer the Company with an eye on what comes next. I feel a great sense of urgency regarding the labor shortages we will face in the near future. In particular, if we cannot secure a workforce that can reliably work in shifts to ensure our manufacturing operations can continue 24 hours a day, it could directly impact the Company's survival. The key here will be to promote operational reforms using digital transformations (DX) so that we do not rely on manpower alone. There are many calls for DX when speaking with employees at our manufacturing sites, and frontline-led reforms have already begun. For example, at the Chiba Plant (Ichihara City, Chiba Prefecture) junior employees have taken the lead in efforts to ensure that production technologies and expertise are accurately communicated to the next generation. Specifically, they have created video-based procedure manuals, which previously were text-based, enabling anyone to check the relevant procedures on their smartphones at any time. For more details, see p. 11 By continuing to combine our accumulated production technologies with digital technologies, while aiming to optimize and reduce the required manpower in production, we will also work to develop personnel who can handle digital technologies. We will also strive to create manufacturing worksites where diverse personnel including seniors and foreign nationals can work in safety and with security.

At Nippon Soda, while responding to the expectations and trust placed in us by our customers, shareholders, investors, employees, local communities, and various other stakeholders, we have conducted business activities that have contributed to society. Although we expect further drastic changes in the social environment, based on our Responsible Care activities, we will continue to grow as a chemical company that supports new social innovations through our revolutionary technologies and products, and fulfill our duty to achieve a sustainable society. Over the next 100 years, we will maintain the sincere and honest corporate culture unique to Nippon Soda that was developed by our predecessors, and at the same time harness the power of chemistry as we constantly pour our efforts into the creation of new value.

We ask that you continue to look forward to the growth of the Nippon Soda Group. Thank you for your continued support.

Eiji Aga

Representative Director, President

Toward a Realization of Our Long-term Vision: Brilliance through Chemistry 2030

Medium-term Business Plan Stage Ⅰ
(April 2020–March 2023)

Solidification of foundation to improve corporate value
(growth investments/liquidation of unprofitable businesses)

FY 2020 results
Net profit: **¥6.76** billion
ROE: **4.8%**

Medium-term Business Plan Stage Ⅱ
(April 2023–March 2026)

Expansion of growth businesses, structural reforms, and growth investments
Promotion of research and technology strategy

FY 2023 results
Net profit: **¥16.69** billion
ROE: **10.3%**
Excl. temporary factors[1]
Net profit: ¥15.42 billion
ROE: 9.5%

Medium-term Business Plan Stage Ⅲ
(April 2026–March 2030)

Expansion of profits through high-value-added businesses
Creation of new value through new businesses

FY 2026 targets
Net profit: **¥17.0** billion
ROE: **10%**

FY 2030 targets
Net profit: More than **¥20.0** billion
ROE: **12%**[2]

1. Recognition of tax refund at affiliated company accounted for by the equity method

2. Revision to Long-term Vision KPI formulated in Feb 2020 (ROE 8% → 12%)

Liquidation of unprofitable businesses	Maintenance and stabilization of high profits	Expansion of revenue from chemicals and agrochemicals
Expansion of overseas business centered on agrochemicals and pharmaceutical additives		
Cultivation and establishment of core technologies	Establishment and sophistication of core technologies	Creation of new value/solutions

We will generate stable cash flows in existing businesses and create new value through growth investment.

Basic Strategy

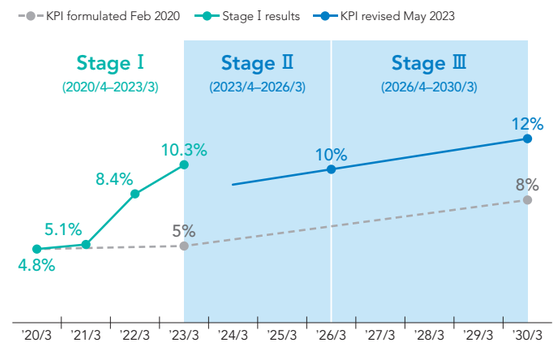
Through growth investment that emphasizes ROI and thorough structural reforms,
**"Transition to a Highly Efficient Business Structure—
Raise Our Profit Efficiency to More Than Double the Current Level"**

Enhancement of cost competitiveness and efficiency
- Move forward with the expansion of high-added-value businesses and liquidation of our unprofitable businesses
- Thoroughly enhance management efficiency (management, research, production, sales, supply chain)

Expansion of overseas businesses
- Promote the expansion of existing businesses and market development for new products and businesses
  - Overseas sales ratio: FY 2020 33.4% → FY 2023 41.8%
- Examine partnerships with other companies

Promotion of new product development and entry into new businesses
- Work to increase the sophistication of our core technologies by enhancing and combining our proprietary technologies and creating synergy with external technologies, and actively invest resources
- Create new businesses for customers in the 2020s and beyond

ROE Trends



We have revised the Long-term Vision ROE target (for FY 2030) we formulated in February 2020 from 8% to 12%

Our Vision 10 Years in the Future

Mission

Create new value through the power of chemistry and increase corporate value by contributing to society.

Basic Strategy

Through growth investment that emphasizes ROI and thorough structural reforms, "Transition to a Highly Efficient Business Structure—Raise Our Profit Efficiency to More Than Double the Current Level"

Capital Policy

Actively implement capital policies that consider financial soundness while prioritizing a balance between growth investments and shareholder returns.

Sustainability-focused Management

Contribute to society through products and services that meet the needs of customers and social environments in the 2020s.

Long-term Vision KPIs Our Vision 10 Years in the Future
(Revised May 2023)

We will aim for management that prioritizes capital efficiency as we strive to improve our corporate value.

ROS (Operating profit on sales)	More than 10% (FY 2020: 5.6%)
ROA (Operating profit on assets)	More than 7% (FY 2020: 3.8%) → **Improve profit ratio and total asset turnover ratio**
ROE* (return on equity)	12% (FY 2020: 4.8%) → **Appropriate balance sheet control**

* Revised the "more than 8%" target formulated and announced in February 2020.

At the Nippon Soda Group, to fulfill our mission and achieve sustainable growth, we will implement management that aims to balance improvements both in corporate value and social value.

Increasing Corporate Value | Increasing Social Value

Review of Our Previous Medium-Term Business Plan: Brilliance through Chemistry Stage Ⅰ

During the term of our previous medium-term business plan, we were able to improve our profit ratio thanks to the expansion of our high-value-added businesses and revisions to our business portfolio. Elsewhere, while proactively investing in products and businesses that can enhance our ability to generate cash flows, we also substantially increased dividends. Moreover, as overseas sales of agrochemicals grew quicker than expected and the weak yen continued, we exceeded our numerical targets by a significant margin.

Numerical Targets and Results

		FY 2020 results	FY 2021 results	FY 2022 results	FY 2023 results	Stage Ⅰ targets (FY 2023)		Long-term Vision KPI (FY 2030)
Net profit	(Billions of yen)	6.76	7.36	12.68	16.69	Achieved	7.0	
Capital investment	(Billions of yen)	8.82	7.72	13.11	13.26 (34.08/over three years)	Achieved	30.0/over three years	
Shareholder returns	(Dividend payout ratio; %)	35.7	43.1	39.6	40.1	Achieved	40%	
	(Dividend; ¥)	80	110	180	240	Achieved	Minimum of ¥80	
ROE	(%)	4.8	5.1	8.4	10.3	Achieved	5%	8% or more*
ROS	(%)	5.6	7.2	7.8	9.8			10% or more
ROA (Operating profit on assets)	(%)	3.8	4.6	5.0	6.8			7% or more

* In line with the above results, we have revised the Long-term Vision ROE target (for FY 2030) we formulated in February 2020 from 8% to 12%.

Achievements and Challenges

Our growth-driver businesses grew as planned. In addition to further expanding sales, we will promote the overseas roll-out of our new proprietary agrochemicals. We liquidated unprofitable businesses and reduced cross-held shares. We will continue to work to improve capital efficiency. Finally, while ensuring the scheduled completion of work to enhance production capacity for growth-driver products, we will seek to enhance our corporate value and continue with appropriate shareholder returns.

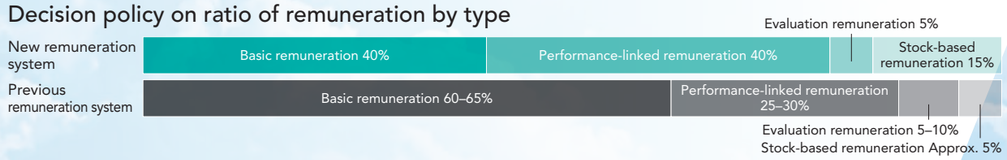
Basic Targets	Achievements in Our Previous Medium-Term Business Plan: Brilliance through Chemistry Stage Ⅰ	Challenges in the New Medium-Term Business Plan: Brilliance through Chemistry Stage Ⅱ
Expansion of high-value-added businesses	Expansion of growth-driver businesses as planned - Pharmaceutical additive NISSO HPC - Functional polymers (semiconductor photoresist material VP-POLYMER) - New proprietary agrochemicals (fungicide PYTHILOCK (picarbutrazox), acaricide DANYOTE (acynonapyr)) Greater expansion of sales than expected in Europe of the insecticide MOSPILAN (acetamiprid) (Sales increased due to expiration of registrations and imposition of use restrictions in competitors' products) Established New Business Planning & Development Department and reinforced promotion structure for new business creation	Further expansion of sales in growth-driver businesses Overseas expansion of new proprietary agrochemicals - Fungicide PYTHILOCK (picarbutrazox), acaricide DANYOTE (acynonapyr), fungicide MIGIWA (ipflufenoquin) Sales expansion of functional polymer in ICT field - Semiconductor photoresist material VP-POLYMER, resin additive NISSO-PB, functional polymer liquid 1,2-SBS Early commercialization of new products - New pharmaceutical additive NISSO HPC SLC, next-generation organic electroluminescence materials
Improvement of capital efficiency	Revision of business portfolio including liquidation of unprofitable businesses - Withdrew from the electrolysis businesses related to caustic potash - Transferred all shares in French consolidated subsidiary Alkaline S.A.S. - Dissolved NISSO BASF Agro, an affiliated company accounted for by the equity method Continuous reduction of cross-held shares - Reduced number of listed stocks from 52 at the end of March 2019 to 31 at the end of March 2023	Continued examination and implementation of liquidation in products and businesses with inferior investment efficiency Continued reduction of cross-held shares
Growth investments and shareholder returns	Planned progression of growth investments to increase cash flows - Work to increase production capacity for pharmaceutical additive NISSO HPC (completed July 2021) - Work to build mass production facility for new fungicide MIGIWA (ipflufenoquin) (completed March 2023) - Work on new production technology and research building at the Nihongi Plant (completed May 2022) Achievement of 40% dividend payout ratio and timely purchase and cancellation of treasury shares	Planned completion of work to enhance production capacity for growth-driver products - KrF photoresist material VP-POLYMER (scheduled for completion in second half of FY 2025) - Pharmaceutical additive NISSO HPC (scheduled for completion in first half of FY 2027) Improvement of corporate value and appropriate shareholder returns

Corporate Governance

Review of executive remuneration system (Introduced a transfer restricted stock remuneration system in June 2022)

To further promote the sharing of value with our shareholders and boost incentive among executives to improve our corporate value, we have introduced a transfer restricted stock remuneration system. In line with this move, we have increased the total ratio of performance-linked remuneration, evaluation remuneration, and stock-based remuneration to around 60%, compared with the 35–45% under the previous remuneration system.

Decision policy on ratio of remuneration by type



New Medium-term Business Plan: Brilliance through Chemistry Stage Ⅱ

A core stage in our transition to a highly efficient business structure— implement various measures to improve corporate value.

Basic Targets

- Expand high-value-added businesses and improve corporate value through structural reforms and growth investments that prioritize capital efficiency.
- Establish and increase the sophistication of core technologies through research and technology strategy, and promote creation of new businesses.

Capital Policy

Actively implement capital policies that consider financial soundness while prioritizing a balance between growth investments and shareholder returns.

Growth investment	▶ Invest in products and businesses that can enhance our ability to generate cash flows - Use ¥40 billion over three years for capital investments in new businesses, increases in production capacity, and maintenance and renewal work. - Promote business partnerships and M&As to reinforce and expand existing and peripheral business domains.
Improvement of capital efficiency	▶ Prioritize capital efficiency and appropriately control balance sheet - Liquidate products and businesses with inferior investment efficiency and appropriately assess investment risks - Continuously reduce cross-held shares
Shareholder return policy	▶ Continue with stable dividends while targeting a total payout ratio of more than 50% ▶ Purchase treasury shares in a timely manner to complement dividends

Numerical Targets

Although we anticipate soaring raw material and fuel prices and other factors that could increase costs, by promoting continued improvements in efficiency in each department, we will maintain the increase in profitability we achieved in Stage Ⅰ to ensure even greater profitability in Stage Ⅲ.

Numerical targets for FY 2026		
Net Profit	¥17.0 billion	FY 2023: ¥16.69 billion (when excluding temporary factors*: ¥15.42 billion)
ROE	10%	FY 2023: 10.3% (when excluding temporary factors*: 9.5%)
Capital investment	Invest ¥40 billion over three years (growth investments/ maintenance and renewals)	
Shareholder returns	Continue with stable dividends while targeting a total payout of more than 50% Purchase treasury shares in a timely manner	

* Recognition of tax refund from IHARABRAS, an affiliated company accounted for by the equity method (financial impact after tax: ¥1.27 billion)

Assumed exchange rate: US$1 = JP¥130; EU€1 = JP¥140

Initiatives for the Environment

We are working as a Group to implement climate changes countermeasures, reduce our environmental burden, protect biodiversity, and tackle other environmental challenges. As the structure of society and industry undergoes major change, we are working to provide solutions to these challenges through chemistry and other related services, and promoting environmental protection activities alongside our local communities.

To tackle climate change, we are targeting a more than 20% reduction in greenhouse gas (GHG) emissions by FY 2026 (compared with FY 2014) and a more than 30% reduction by FY 2031 (compared with FY 2014). To do so, we are moving forward with the transition to non-fossil-based electricity and the utilization of renewable energy. In addition, we will improve our energy intensity by switching to more resource- and energy-efficient manufacturing equipment.

Elsewhere, while reducing the environmental impact of our business activities by reducing waste, for example, we will aim to contribute to a sound material-cycle society through the provision of various products and services that use a range of different technologies. These include technologies to make industrial waste safe, such as fluorocarbon treatment; heavy metal removal technologies; resource recycling technologies; and water processing technologies. At the same time, we will work with external institutions to engage in R&D aimed at the early social implementation of next-generation energy sources with low environmental impact.

Moreover, alongside our local communities, we will protect and develop headwater conservation forests and forests that provide carbon sinks, promote environmental sustainability through the protection of pine and cherry trees from pests, and in turn contribute to the protection of biodiversity.

Reinforcement of Human Capital

With declining birthrates, aging populations and increasing job mobility, at the Nippon Soda Group we have positioned the acquisition of personnel as a key management theme. We believe that improvements in corporate productivity and the pursuit of profits are important motivating factors for employees to work with us, and as such we have formulated a new human capital management vision, Make Employees Brilliant.

In this new vision we are promoting autonomy and growth. Through flexible, efficient workstyles that enable employees to maximize their capabilities, we are aiming to create a virtuous cycle of value creation and greater employee fulfillment. Our ultimate aim is to create workplaces that fill employees with fulfillment and pride and that enable them to utilize their diverse values and strengths to maximum effect. We are therefore working to do so from two angles: the development of personnel and the improvement of workplace environments.

In the development of personnel, we are examining and implementing various measures to promote diversity and transform the structure of our workforce, to ensure a smooth transfer of skills and knowledge from our senior employees to the next generation of employees, and to diversify approaches related to workstyles and careers. In the improvement of workplace environments, we are aiming to allow employees to maximize their capabilities through flexible, efficient workstyles. We are therefore introducing unassigned office seating plans, work-from-home systems, and staggered work hour systems, as well as shortened work hour systems that exceed the legally required standards for employees nursing or raising children, or employees nursing family members.

Materialities at the Nippon Soda Group

Agriculture

Securing food and achieving sustainable agriculture

2 ZERO HUNGER

Social Challenges

The world population is expected to reach ten billion in 2050, and a large amount of food and feed will be required. Also, the global warming megatrend will increase the outbreak of agricultural pests.

Response Policy

The Nippon Soda Group supplies safe and effective agrochemicals that are highly rated around the world. We expect needs for higher levels of safety to continue increasing, so we will create new agrochemicals that are safer and more effective by using advanced expertise to contribute to the world's food supply. Additionally, we will utilize information and communication technologies (ICT) and other technologies to support labor-saving pest control work and the production of high-quality crops.

Healthcare

Healthy lives to all people

3 GOOD HEALTH AND WELL-BEING

Social Challenges

In advanced economies, health consciousness and awareness of preventive medicine are increasing due to social security cost issues and the sustainability of healthcare systems. The demand for pharmaceuticals is increasing in emerging economies as well in tandem with improvement in living standards.

Response Policy

The cellulose derivative supplied by the Nippon Soda Group is widely used domestically and abroad as a binder for pharmaceutical tablets that make medicine easier to take, and it is also being developed for use in food processing for supplements, etc. In the future, we will continue to develop support services for high-performance products and formulation technologies and actively research and develop products that contribute to improving people's health and life.

Environment

Toward a resource recycling society

6 CLEAN WATER AND SANITATION
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
15 LIFE ON LAND

Social Challenges

Achieving a sustainable society is a goal shared around the world. Tackling environmental problems such as global warming and resource depletion will help achieve this goal, and corporations are increasingly expected to lead those efforts.

Response Policy

The Nippon Soda Group utilizes industrial waste harmless treatment technologies, resource recycling technologies, technologies for removing heavy metals, water treatment technologies, and other technologies developed over its long history, to come up with various environmental solutions and develop business. For sustainable plant protection, we are also contributing to the protection of the pine forests that are a feature of Japan's natural heritage.

ICT

Applying the functionality of chemicals to ICT devices

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Social Challenges

Smart devices are becoming more popular around the world as the progress in information and communication technologies accelerates. This market is expected to grow significantly in the future.

Response Policy

There are growing needs for new semiconductor and circuit board materials in line with the emergence of electric vehicles and autonomous driving technologies and higher speed, larger capacity smart devices and telecommunications. The Nippon Soda Group uses its precision polymerization technology and organic synthesis technology to provide high-performance polymers for use in materials for 5G communications devices and photoresists for semiconductors.

Course of Action for the New Medium-term Business Plan

Chemical Materials

Healthcare ICT Environment

Healthcare

Our pharmaceutical additive NISSO HPC is a binder that is used to form tablets for pharmaceuticals and supplements. It boasts a range of outstanding functionalities that help to form tablets, including binding force, moisture resistance, and sustained release properties. Although we completed work to increase production capacity in July 2021, due to a continued rise in demand, we have begun work to increase capacity by a further 50%, and are aiming for completion in the first half of FY 2027. Moreover, in addition to launching a new product to be used as a coating agent, we are aiming to make NISSO HPC the standard in advanced fields such as 3D printing formulation technologies. In doing so, we will aim for further sales expansion in the pharmaceutical and supplement markets and the enhancement of peripheral businesses.

ICT

Demand for our semiconductor KrF photoresist material VP-POLYMER is expected to grow over the medium term in line with rising production volumes of 3D-NAND flash memories and the increasing number of semiconductors being used in electric vehicles and autonomous driving technologies. As such, we have begun work to double our current production capacity. We will also aim to increase sales of our resin additive NISSO-PB and liquid 1,2-SBS (launched in 2022) in 5G telecommunications materials and other next-generation low-dielectric polymer markets. The former boasts high heat resistance and low dielectric properties in high frequency domains, while the later offers excellent low dielectric constant properties and outstanding heat-, water-, and oil-resistant properties.

Agri Business

Agriculture

Expansion of new proprietary agrochemical sales

Sales of our fungicide PYTHILOCK (picarbutrazox) are increasing in Japan, South Korea, and as a seed treatment agent in the US. We are also progressing with developments for its use in vegetables in China, Indonesia, and Europe. For our acaricide DANYOTE (acynonapyr), while aiming to increase sales in Japan and South Korea, we are also progressing with development in the US and other countries overseas. Elsewhere, based on its efficacy against a wide range of pests, we expect MIGIWA (ipflufenoquin) to become a leading fungicide. We completed work to increase production capacity for MIGIWA (ipflufenoquin) in March 2023, and have begun full sales in Japan. We are also making progress with its registration overseas, and will quickly aim to begin and expand sales in other countries. By 2026, we are aiming for a combined ¥10 billion in net sales for these three products.

Maintenance and expansion of sales for existing products

In addition to sales in the fruit and vegetable sector, we will also aim to expand application of our existing products to the grain market. At the same time, we will work to grow sales in Brazil and other South and Central American countries, as well as countries in Asia, where demand is expected to grow. For our leading fungicide TOPSIN-M (thiophanate-methyl), while expanding its scope of application, we will look to differentiate the product from generic products through the development of mix formulations and aim for further increases in sales. Meanwhile, sales opportunities for our leading insecticide MOSPILAN (acetamiprid) are increasing in line with the expiration of registrations of our competitors' products in Europe. Due to its high efficacy and low environmental impact, MOSPILAN (acetamiprid) has been approved for re-registration in Europe, and we will continue with efforts to increase sales.

Other Businesses

Trading & Logistics

In trading, by enhancing our global procurement and sales networks and increasing the value we can offer, we will aim to strengthen our activities in the four strategic fields of Agriculture, Healthcare, Environment, and ICT, and at the same time create new businesses in unique fields that contribute to society and the environment. In logistics, we will increase our handling of high-value-added goods such as dangerous goods, toxic and deleterious substances, and pharmaceuticals, and provide high-quality, comprehensive logistics services through highly efficient operations.

Engineering

We will aim to expand our business domains by strengthening our core technologies such as powder handling, pharmaceutical manufacturing, and reaction/distillation technologies, and by developing proprietary and new equipment and processes including milli-scale chemical reactors and anion adsorption. At the same time, by boosting our competitive advantage through stronger job processing and procurement capabilities and the promotion of digital transformations (DX), we will solidify our position as a fine chemical engineering company that can accurately respond to customers' increasingly sophisticated and diverse needs.

Eco Solutions

Environment

Our Eco Solutions business has over many years accumulated a wide range of resource recycling technologies, including the collection of zinc from electric furnace dust, the production of anhydrous sulfuric acid and purified anhydrous sodium sulfite from used sulfuric acid, and the collection of valuable metals. We also have various unique industrial waste processing technologies including fluorocarbon treatment and high-difficulty waste treatment technologies. Through these technologies we will aim to improve profit through efficient processing, and at the same time expand the business by adding and upgrading equipment. In doing so, we will contribute to a sound material-cycle society that is in harmony with the global environment.

R&D / Production Technology

Based on our research and technology strategy Brilliance through Chemistry 2030, we are working to establish and increase the sophistication of our core technologies, reinforce and develop our platform technologies, and introduce external technologies. In doing so, we aim to create new businesses in the three target domains of Food, Healthcare, and Advanced Materials by 2030, which is the final year of our Long-term Vision. Moreover, we will also promote greater efficiency in our production processes through use of AI and other digital technologies, and examine optimal production systems taking into account personnel, climate change, and other factors.

Feature

Enhancement of Research and Development

As part of new medium-term business plan Brilliance through Chemistry Stage Ⅱ (April 2023–March 2026), we have created a new action plan: the Brilliance through Chemistry 2030 research and technology strategy. In addition to establishing and increasing the sophistication of our core technologies, we will work to create new businesses by 2030, which is the final year of our Long-term Vision.

Transforming into a company that can continue to generate innovation toward the establishment of new businesses

Akira Mitani
Executive Officer
General Manager, Research & Development Division

Selecting domains that respond to megatrends

To respond to rapid changes in social environments and technological advancements, as part of our Brilliance through Chemistry 2030 research and technology strategy we have identified three target domains in which to set up new businesses and create new value: Food, Healthcare, and Advanced Materials.

In the investigation of potential new businesses, it was important to have a thorough understanding of our technologies and strengths, and so we began with a comprehensive stocktaking of our technologies. In line with market conditions and the scope of our resources, we then identified domains where we can provide solutions using the Group's technological capabilities, expertise, and other strengths, as well as domains that were in step with social needs.

Responding to social needs by combining our technology portfolio and external resources

The first domain in which we are aiming to create new businesses is Food (food tech). At Nippon Soda, we have for many years been involved in the development of agrochemicals, and the technologies we have accumulated are highly compatible with the food domain. Moreover, food extends beyond agriculture to include fishery and livestock, while we are also seeing an increase in new food-related technologies such as genome editing. This wide range of potential was key. The second domain is Healthcare (healthcare for people and animals). One of our core businesses is the pharmaceutical additive business, which is centered on NISSO HPC. One ingredient in HPC is cellulose, and we own various technologies that can make effective use of cellulose and other biological resources. These technologies are highly compatible with the healthcare domain, and our aim is to create new value in healthcare by combining these with our technologies in materials and agrochemicals. Moreover, new modalities such as peptides and nucleic acids are also garnering attention, and there is plenty of room for technological growth. Another reason we selected healthcare was that, in addition to healthcare for people, we also anticipate increasing social needs for animal healthcare in the future. The third domain is Advanced Materials (next-generation ICT materials/carbon neutrality). Among our core technologies are polymer and organic synthesis technologies, and we believe these are highly compatible with next-generation materials that have huge growth potential, such as ICT and organic materials. We also selected Advanced Materials for their potential to contribute to carbon neutrality, and we have accumulated a range of technologies, including polymer and metal technologies, that can contribute to the global environment. In this way, we have identified domains that are feasible, profitable, and that have development potential. We have also focused on areas in which we can utilize our technological capabilities, areas that meet social needs, and areas in which there is room for technological growth.

As we aim to become a global leader in niche domains, we must increase the speed at which we create new businesses. To speed up research and development, the key will be to utilize external resources and introduce external technologies through M&As, for example. We will also focus on joint development and investment in startups.

Integrated research and development through the fusion of knowledge and fusion of technologies

One of my most important missions is to create a platform from which our researchers can take the lead in continuously generating innovation. The creation of new businesses is not possible with a sporadic approach; our approach must be continuous, and so it is essential to build a workplace environment where employees can continue to share their ideas. In April 2021, we integrated the Odawara Research Center and the Chiba Research Center, and we are moving forward with further reorganization to promote companywide interaction between technical personnel, including those at our production technology research centers. At the Odawara Research Center, which is in charge of R&D on agrochemicals, and the Chiba Research Center, which oversees R&D on materials and polymers, although their specialties largely differ, there are high expectations for new value creation through the combination of their core technologies. Moving forward, our plan is to enhance communication between personnel from each hub.

The key concepts for our R&D operations are "fusion of knowledge," "fusion of technologies," and "global." Based on these concepts, we are focusing on the enhancement of our existing businesses, the reinforcement of their competitive advantage, and the creation of new businesses. We are currently inviting proposals for new research themes from employees across the Company. To support these proposals, we are offering technology and marketing training to help employees consider how they can use the technologies they are familiar with to meet latent needs. Furthermore, we have set up systems to allow employees to enhance their proposals after submission, while offering incentives to researchers who submit proposals. We are also working on the creation of various other relevant systems.

We have already set up frameworks for the commercialization of organic electroluminescence materials and animal medicines, and will continue to reinforce our frameworks for other research themes.

For us to create new businesses, it is paramount that we take on new challenges without fear of failure. As the saying goes, failure breeds success. As such, while learning from trial and error, I look forward to our researchers enhancing their own expertise.

Accelerating commercialization through new technologies and industry-academia collaboration

Natsuki Amanokura
Manager, New Business Planning & Development Department

Since its launch in April 2022, the New Business Planning & Development Department has identified candidates for new businesses in Food (food tech), Healthcare (healthcare for people and animals), and Advanced Materials (next-generation ICT materials/carbon neutrality), and has also examined our ideal vision for the future.

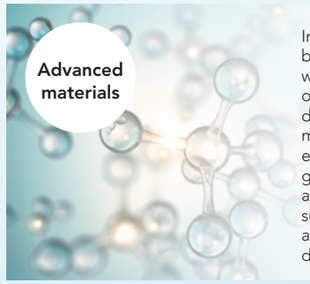
Industries everywhere continue to undergo rapid change in line with the rise of new technologies, tighter restrictions, and social trends, and it will be difficult to keep up with these changes using internal capabilities alone. Nucleic acid-based medicines, for example, which garnered attention as COVID-19 treatments, were initially developed to treat cancer. Several years ago there were only a few varieties in the development stage, but this has increased to several dozen. To keep track with modern developments like this and go one step further, it is essential that we collaborate with external parties. Modern society is full of outstanding ideas, and so we must enhance our relationships with partner companies to quickly implement new businesses.

Food

Protein is an essential nutrient, and it is said that the supply of protein will not be able to keep up with global demand in ten years' time. Part of our technology strategy involves the use of smart cell and cultivation technologies, and we have positioned protein as one area that brings together our technology strategy and food tech. While plant-based meat is already established in Japan and overseas as a source of protein, in the future it is thought that the cultured meat industry will experience significant growth. We have already begun working with a Japanese startup in the cultured meat industry to develop components that can form nutrient and meat compositions using smart cell-based cultivation technologies. Alongside our protection of crops in Agri Business, we will aim to contribute to more stable food supplies across the world through the creation of food using food tech.

Healthcare

We have identified healthcare, including animal medicine, as a target domain for new businesses. Our main focus will be on additives for protein and nucleic acid medicines, markets for which are rapidly emerging in the healthcare domain, and we have already begun joint development with universities. We also believe that technological collaboration with startups will be essential in this area, and so we have joined the JMTC Health Care Fund, which is involved in the development of healthcare ingredients. While commercializing products using our formulation technologies, for example, we are aiming to develop as a contract development and manufacturing organization (CDMO), which is distinct in that it sells technology as opposed to selling materials. For animal medicines, we are progressing with research using our expertise in synthesis and agrochemical evaluation technologies. In Brazil, China, and other countries overseas, demand for pet anthelmintics is rapidly growing, and so we will work with our overseas partner companies on the relevant developments.



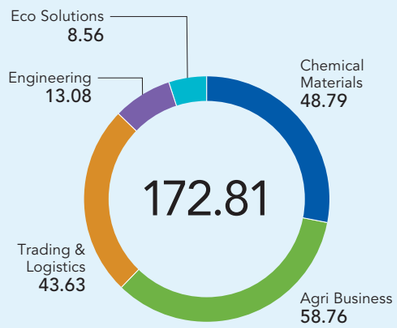
Advanced materials

In line with the spread of smart devices, organic electroluminescent diodes (OLEDs) are beginning to be used in various domains. With demand for more functional OLED materials, we have established a research structure through which we can utilize our long-accumulated organic synthesis technologies and manufacturing process technologies, and work alongside domestic startups and university labs to develop next-generation organic electroluminescence materials. Furthermore, to help achieve a decarbonized society and play our part for the environment, we are working to optimize the high-pressure storage of hydrogen, which is garnering attention as a next-generation energy source. We have also begun development of alternative resins that can take the place of fluorine compounds, which are starting to become subject to regulations due to their persistence. Moreover, using our smart cell technologies, we are examining the commercialization of high-value-added compounds, which were previously difficult to mass produce using chemical processes.

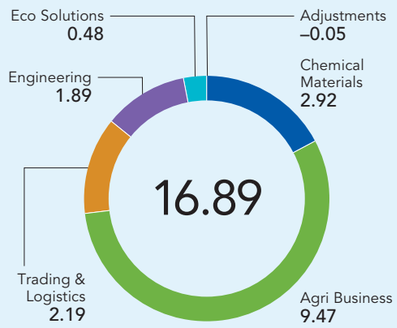
The Nippon Soda Group's Businesses

The Nippon Soda Group is a corporate group that uses chemistry to create superior products and services around the world and in turn contribute to the achievement of a sound society. Chemical Materials and Agri Business are the core of the Group. They primarily involve the manufacture and sale of chemicals, and the provision of services.

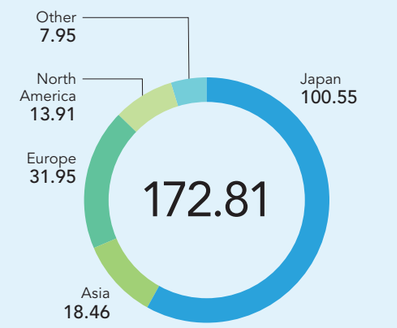
Net Sales by Segment (FY 2023)
(Billions of yen)



Operating Profit by Segment (FY 2023)
(Billions of yen)



Net Sales by Region (FY 2023)
(Billions of yen)



Chemical Materials
See p. 30–31

Healthcare
Pharmaceuticals and pharmaceutical intermediates

— Main Products —

Pharmaceutical additive
NISSO HPC
NISSO SSF

ICT
Specialty chemicals

— Main Products —

Resin additive
NISSO-PB
Semiconductor photoresist material
VP-POLYMER

Environment
Eco business products

— Main Products —

Heavy metal fixative
HIDION
Water treatment agent
NISSO HI-CHLON

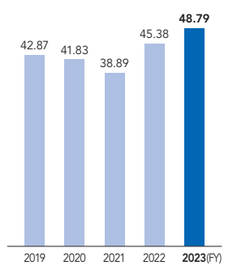
Core businesses
Industrial chemicals

Caustic soda
Cyanide
Phosphorus oxychloride, etc.

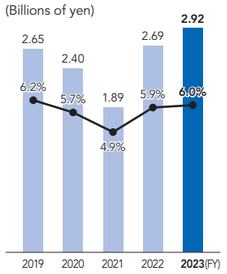
Fine chemicals

Color developers for thermal paper
Secondary battery materials
Specialty isocyanates, etc.

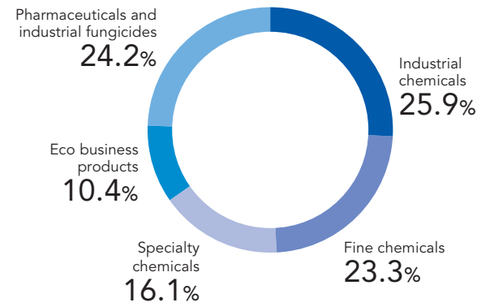
Net Sales
(Billions of yen)



Operating Profit / Operating Margin
(Billions of yen)



Net Sales Ratio
(FY 2023, non-consolidated basis)



Agri Business
See p. 32–33

Agriculture
Product development specializing in Expanding the applications of existing fruit and vegetables agrochemicals for use with grains

Promoting development for lawns and non-agricultural fields in addition to crops

Fungicides

— Main Products —

TOPSIN-M (thiophanate-methyl)
PANCHO TF (cyflufenamid-triflumizole)
PYTHILOCK (picarbutrazox)
MIGIWA (ipflufenoquin)

Insecticides and acaricides

— Main Products —

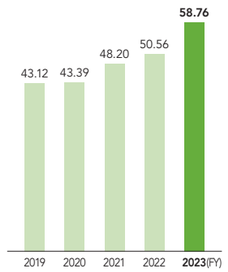
MOSPILAN (acetamiprid)
NISSORUN (hexythiazox)
DANYOTE (acynonapyr)

Herbicides

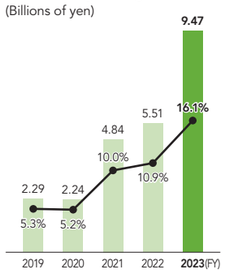
— Main Products —

NABU (sethoxydim)
CONCLUDE (flupoxam)
ALPHARD (topramezone)

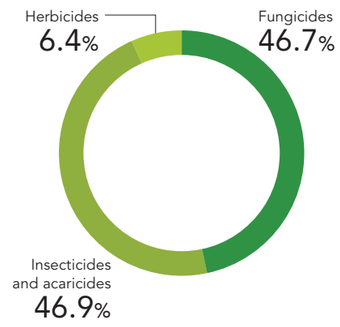
Net Sales
(Billions of yen)



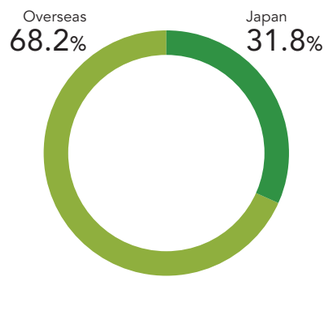
Operating Profit / Operating Margin
(Billions of yen)



Sales Ratio by Product Category
(FY 2023, non-consolidated basis)

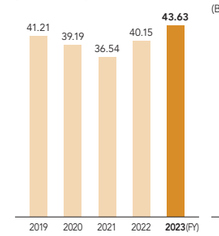


Overseas Sales Ratio
(FY 2023, non-consolidated basis)

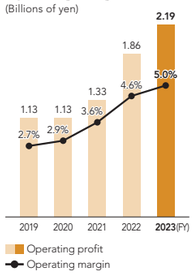


Trading & Logistics
See p. 34

Net Sales
(Billions of yen)

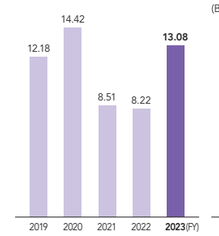


Operating Profit / Operating Margin
(Billions of yen)

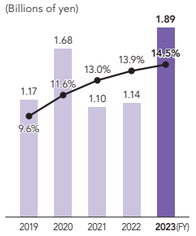


Engineering
See p. 34

Net Sales
(Billions of yen)

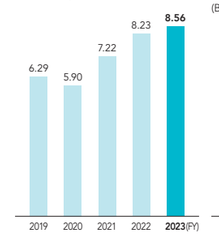


Operating Profit / Operating Margin
(Billions of yen)

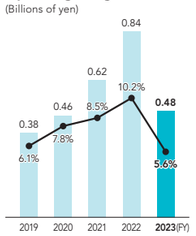


Eco Solutions
See p. 34

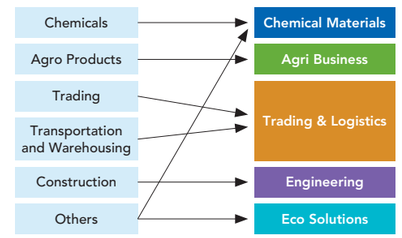
Net Sales
(Billions of yen)



Operating Profit / Operating Margin
(Billions of yen)



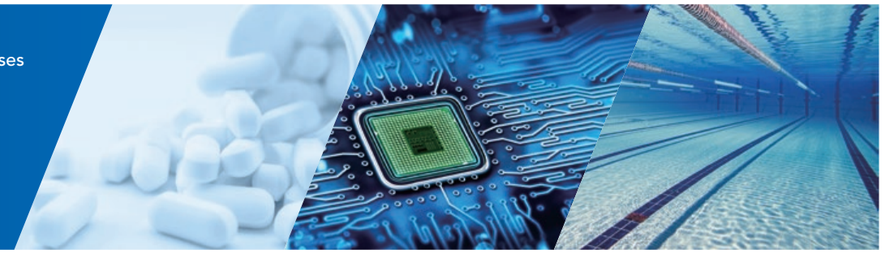
Segment classifications were changed for the year ending March 2024



We integrated Trading with Transportation and Warehousing, and transferred some products from Others to Chemical Materials

The Nippon Soda Group's Businesses

Chemical Materials



Makoto Kato
General Manager, Chemicals Business Division

Rising health consciousness and interest in preventive healthcare, progress in information and communication technologies that support the popularization of smart devices, and the achievement of a sustainable society through lower environmental impact and the creation of a sound material-cycle society are becoming worldwide trends. In light of these trends, in Chemical Materials we have identified three materialities (important issues): Healthcare, ICT, and Environment. By focusing the technologies and services that we have developed over many years in these fields, we can contribute to healthy living, technological innovations in information and communication, environmental protection, and improved safety and health. Elsewhere, in line with robust demand for our growth-driver products—the pharmaceutical additive NISSO HPC and semiconductor photoresist material VP-POLYMER, we are moving forward with work to significantly increase our production capacity for both products. Through the global expansion of products that can tackle social issues, we will promote sustainable growth.

Healthcare

High functionality and advanced quality control / Domestic top-level industry penetration rate / Established system for global sales expansion

Risks and opportunities
- Rising health consciousness and interest in preventive healthcare in line with concerns surrounding social security costs and the sustainability of medical systems, and growing demand for pharmaceuticals and health foods in line with improving living standards in emerging economies

Competitive advantages
- Extremely high quality control requirements preventing market entry by newcomers
- Provision of support services for formulation technologies that uphold our top-level industry penetration rate in Japan
- Differentiation through development and launch of original brands

Challenges
- Creation of production systems to cope with rising demand
- Provision of technological support services for advanced formulation technologies
- Shift to higher performance products, development of new pharmaceutical additives, and expansion of peripheral business domains

NISSO HPC

Our pharmaceutical additive NISSO HPC is a growth-driver product that is used as a binder to form tablets primarily for pharmaceuticals. As one of the few additives that dissolves both in water and alcohol, it boasts outstanding binding force to reduce tablet size, the ability to reduce dose frequency due to its sustained release of active ingredients, while it can also maintain the concentration of active ingredients in blood. Due to these excellent properties and functions, it has been widely recognized as an essential additive for the manufacture of pharmaceuticals. The Nippon Soda Group possesses manufacturing facilities and management systems that conform to very high-quality control standards. Customer trust in our quality is the brand power of NISSO HPC.

In the growing global pharmaceuticals market, NISSO HPC boasts the highest market penetration rate in Japan, while demand is also growing in Europe and North America, as well as in India and China where living standards continue to rise. Due to its high functionality, NISSO HPC is also seeing increased use in supplements and other food domains. We are accelerating product growth in Europe, the US, and India through technical support services courtesy of local staff. Elsewhere, in line with soaring demand, at the Nihongi Plant (Joetsu City, Niigata Prefecture) we are moving forward with work to enhance production capacity, with completion scheduled for the first half of FY 2027.

Meanwhile, we have positioned the Cellulose Technical Application Center (CTAC) (Ichihara City, Chiba Prefecture) as a hands-on collaborative facility where we can work with customers to create new value for NISSO HPC, and we are focusing on investigations to expand its applications. We have also been enhancing the application data for a coating agent with entirely new properties and begun offering samples. Also, in advanced areas such as pharmaceutical formulation technology—which involves 3D printing and continuous production—we are promoting joint development to standardize NISSO HPC processes.

Cellulose Technical Application Center (CTAC)

ICT

Proprietary living anionic polymerization technology / Supply capabilities that respond to increasing demand

Risks and opportunities
- Expansion of semiconductor demand in line with the spread of electric vehicles and autonomous cars
- Expansion of demand for materials that can respond to increasingly sophisticated quality requirements in line with higher speed and larger capacity communication and information & electronic equipment

Competitive advantages
- Product development using proprietary living anionic polymerization technology
- Various properties including low dielectric constant, heat resistance, water resistance, and chemical resistance
- Proprietary manufacturing methods that meet the increasingly sophisticated quality requirements in electronic materials

Challenges
- Accurate understanding of needs in electronic materials, which are experiencing rapid technological innovations, and product development aimed at having our materials adopted for new applications and as the industry standard

Semiconductor Photoresist Material VP-POLYMER

VP-POLYMER is predominantly used as a KrF photoresist material for semiconductors. Manufactured using our proprietary living anionic polymerization technology, VP-POLYMER has a narrow molecular weight distribution and its high quality meets the increasingly sophisticated quality requirements of semiconductors. As such, it is highly trusted by photoresist manufacturers.

Production volumes of 3D-NAND flash memory are increasing in line with advancements in communication technologies, while demand for automotive and industrial semiconductors is expected to grow over the medium to long term due to the spread of electric vehicles and autonomous driving technologies. As such, we are moving forward with work to double our production capacity for VP-POLYMER, with completion scheduled for the second half of FY 2025.

Resin Additive NISSO-PB

Our resin additive NISSO-PB, which is a functional polymer, is a unique liquid polymer that was developed from our living anionic polymerization technology. It shows limited deterioration with age, and has various outstanding characteristics such as electrical properties, high heat resistance, chemical resistance, and water resistance. As such, it is used in adhesives, resin modifiers, and paints and coatings.

Robust demand continues for its use as a modifier for printing plates used in flexographic printing, which is growing in popularity worldwide, and demand has recently been increasing for its use in ICT. Specifically, it is being used as a material for smartphone and tablet touch panels and as an additive in copper clad laminates used in base stations for wireless 5G communications.

Functional Polymer Liquid 1,2-SBS

1,2-SBS is a polymer made using our living anionic polymerization technology. In has a higher 1,2 vinyl content than regular SBS, and boasts excellent cross-linking properties, low dielectric constant properties, and heat-, water-, and oil-resistant properties. Sales of 1,2-SBS are also growing in materials used in 5G communications equipment.

In addition to its use in electronic materials, the product has received wide acclaim in a wide range of other applications, including synthetic rubber and adhesives.

Environment

Water treatment technologies and heavy metal removal technologies / Expansion of environmental solutions

Risks and opportunities
- Expansion of demand for environmentally friendly products as a result of environmental issues such as pollution, waste treatment, and water resource protection
- Expansion of demand for products that can support a sound material-cycle society in line with growing social interest in environmental protection

Competitive advantages
- High market share in inorganic and organic chlorine agents, which are used to manage chlorine levels in pools and septic tank effluent water
- Technologies for the fixation of harmful heavy metals found in fly ash from waste incinerators and industrial wastewater

Challenges
- Provision of various environmental solutions through collaborations with partner companies

Developments in the Water Treatment Field

The Nippon Soda Group offers a diverse range of water treatment products, including agents for disinfecting and sterilizing water. In this field, we have developed a technology to control dissolution rate, which has much in common with that used for drug delivery systems (DDS)* for pharmaceuticals. We have many examples of collaborative development with manufacturers, trading companies, and other partner companies. A representative example is a jointly developed kitchen product that removes slime from drains.

The market for MITAGEN, an enzyme-microbe preparation that improves the treatment of industrial wastewater, has also been expanding, not only in Japan but also in countries such as China, where there is increasing awareness of the need to reduce environmental burden.

Looking ahead, we will position our ALM-S1 heavy metal fixative for wastewater as a strategic product, look to grow it into a core product that stands alongside HIDION, our heavy metal fixative for fly ash treatment, and in turn grow our environmental business.

* Technology to control the delivery of drugs within the body and maximize the effect of the medicine while minimizing side effects

Visit our website for more details on our main products.
https://www.nippon-soda.co.jp/e/fields_and_products/

The Nippon Soda Group's Businesses

Agri Business

Kazuo Oba
General Manager, Agro Products Division

As a result of the increase in food demand due to worldwide population growth and economic growth, the need to improve the efficiency of agricultural production has become an issue. At the same time, there are concerns about an increase in crop pests and diseases, as well as an increase in weeds, caused by global warming. The Nippon Soda Group considers contributions to ensuring food safety and security and sustainable agriculture using agrochemicals as materialities (important issues), and will contribute to solving agricultural and food-related problems under the themes of increasing production and ensuring stable supplies of food and feed worldwide, improving safety for users of agrochemicals and consumers, and reducing environmental impact. We have particular strengths in solutions for fruit, farming, and horticulture so with these as our main targets, we are focusing on the development of personnel who can cover both technical and sales operations, and this is helping to boost our competitive advantage in responding to customers' needs. Based on these advantages, we will seek to expand global sales of our three new proprietary agrochemicals—the fungicide PYTHILOCK (picarbutrazox), the acaricide DANYOTE (acynonapyr), and the fungicide MIGIWA (ipflufenoquin)—to ensure we can support agricultural production sites across the world.

Agriculture

Increasing sales in niche markets around the world, particularly fungicides, insecticides, and acaricides for fruit and vegetables

Risks and opportunities
- Rising needs for greater efficiency in food and feed production in line with growing populations and increasing meat consumption
- Increase in crop pests and damage due to rising average temperatures
- Expiration of registration of environmentally harmful agrochemicals, and expansion of demand for low-risk agrochemicals

Competitive advantages
- Accurate understanding of market needs through technology sales
- An integrated Group system covering everything from R&D to production
- The expertise to accurately and quickly expand applications based on a knowledge of the different registration systems, safety standards, climates, and environmental issues in each country/region

Challenges
- Development of agrochemicals with low environmental impact that can demonstrate highly effective pest control with a low dose
- Development of agrochemicals that can reduce the required manpower in agriculture and reduce overall agricultural production costs
- Rising development costs of new agrochemicals due to tighter restrictions, including stricter safety standards

Market Environment for Agrochemicals

Although the demand for food will increase with population growth, the amount of arable land remaining worldwide is finite. Therefore, the demand for agrochemicals that make it possible to ensure crop yields and reduce the required manpower in agriculture is expected to grow over the medium- to long-term. However, the barrier is high to bring products to the market that are safe and environmentally friendly, and various considerations must be made from the research and development stage. As development costs of new agrochemicals increase, one issue we must look at is how to compete or collaborate with ever-growing, major international agrochemical manufacturers that focus on the grain market.

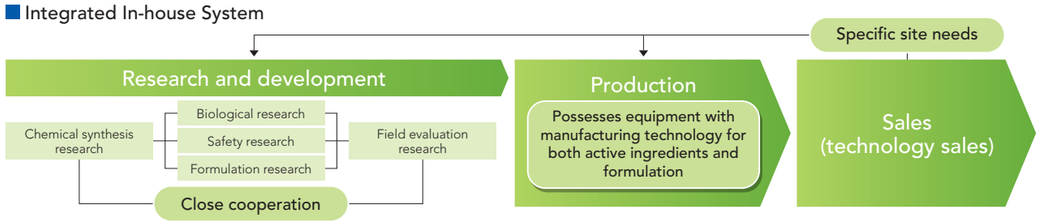
The Nippon Soda Group is developing specialized products for fruit and vegetables for which there is comparatively little competition with major overseas manufacturers and generic products, and for which there is no competition with genetically modified seed varieties. Moreover, by expanding the application of existing products to grains, we intend to improve cost competitiveness through increased sales volume and economies of scale. Additionally, by supplying agrochemical ingredients to major overseas manufacturers and developing mix formulations, we can expand globally while differentiating our products from generic agrochemicals.

The Value Chain and Our Strengths

At the Nippon Soda Group, we have an integrated R&D structure that allows us to undertake chemical synthesis research, biological research, safety research, formulation research, and field evaluations within the Group. In terms of production, this structure enables us to perform all processes from the manufacture of active ingredients to the formulation of agrochemicals. Meanwhile, our sales staff are knowledgeable about agriculture-related technology, and they conduct awareness-raising activities and hold seminars domestically and abroad to give farmers and community members an accurate understanding about the safety and usage of agrochemicals. They also exchange information with farmers and pay attention to even their smallest needs while providing feedback to the research and development department. In addition, they contribute to the improvement of existing products and the development of new agrochemicals through repeated evaluation and analysis.

In this way, our strengths are in an integrated value chain that can be consistently managed within the Group.

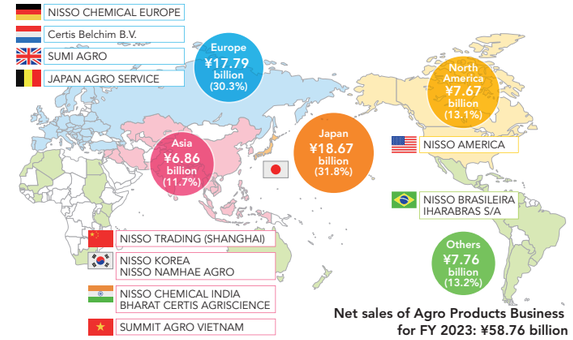
Integrated In-house System



Promotion of Global Expansion

The Nippon Soda Group started expanding overseas early on, and in FY 2023 the overseas sales ratio for the Agro Products Business reached about 68%. Because we are developing products specifically for fruit and vegetables, our sales ratio in Japan and Europe is increasing, but as we are also expanding the application of our products for grains, our sales in North and South America have also been increasing recently. In particular, we see Brazil as a major market, and through our local distributor IHARABRAS S/A Indústrias Químicas—in which we are the largest shareholder—we are collecting requests and information from customers to develop products and further expand sales.

Also, we are focusing on promotion and awareness-raising activities in China, South Korea, India, Vietnam and other countries in Asia as we aim to contribute to ensuring a higher food yield in the global market. In India, in 2020 we invested in Bharat Certis Agriscience Ltd., a local manufacturer and distributor of agrochemicals. Through this investment, in addition to promoting sales of existing agrochemicals, we are moving forward with preparations to begin sales of the new agrochemicals we have recently developed.



Net sales of Agro Products Business for FY 2023: ¥58.76 billion

Efforts to Bring New Agrochemicals to Market

Based on our "food safety and security" motto, we develop safe agrochemicals only after estimating and evaluating their effects on the human body, and investigating and analyzing the actions of metabolites and degradants in animals, plants, and the environment. We prioritize the selection of new pesticide candidate compounds that demonstrate excellent control efficacy against pests that are currently or will become problematic at food production sites, while also showing safety, low-persistence, and low-dose activity against beneficial organisms.

As agrochemicals can only be registered for use with specific crops, for farmers who grow multiple crops within a narrow area, using the correct pesticides for the correct crops can be both an operational and financial burden. At the Nippon Soda Group, using our long experience in the development of agrochemicals, we are aiming to register agrochemicals for multiple crops with a single agent so as to reduce the burden on farmers.

We have recently commenced sales of the fungicide PYTHILOCK (picarbutrazox), the acaricide DANYOTE (acynonapyr), and the fungicide MIGIWA (ipflufenoquin). We are working to expand sales globally and to achieve ¥10.0 billion in sales through these three agents by 2026.

Product name	Classification	State of development and characteristics	Launch
PYTHILOCK (picarbutrazox)	Fungicide	· New modes of action, effective against fungi that are resistant to existing fungicides · On sale in Japan and South Korea, under development for vegetables for Europe and the US · Conclusion of global licensing agreement with Syngenta, on sale in the US as a new seed treatment agent ▸ Registered in Canada in 2021 ▸ Applications made for registration in the EU in 2021	2017
DANYOTE (acynonapyr)	Acaricide	· New modes of action, and effective against resistant spider mites · Immediate efficacy, and low impact on beneficial insects · On sale in Japan and South Korea, applications made for registration in the US in 2021	2020
MIGIWA (ipflufenoquin)	Fungicide	· New modes of action, effective against fungi that are resistant to existing fungicides · Effective against a wide range of pests, expected to become a major fungicide · Acquired first domestic registration for priority review · Commenced domestic sales in 2021 · Registered in the US and applications made for registration in Europe in 2022 · Under development for Brazil, Asia, and other locations worldwide	2021

Expanding Applications Based on Existing Agrochemicals

For our existing, main agrochemicals such as the fungicide TOPSIN-M (thiophanate-methyl) and insecticide MOSPILAN (acetamiprid), we are working to expand applications from fruits and vegetables to grains. However, the spread of generic agrochemicals has caused challenges in maintaining revenue.

In differentiating TOPSIN-M (thiophanate-methyl) from generic agrochemicals by developing a mix formulation, we will look to expand sales in the markets of emerging economies. Meanwhile, MOSPILAN (acetamiprid) has cleared strict usage standards in Europe, and as the registration of rival insecticides expires in the EU, opportunities for sales are increasing. By diversifying the methods of application and pests the product can be applied to, we will seek registration in various countries and move forward with measures to extend product lifecycles.

In addition to expanding our product portfolio through business acquisitions, we will work to expand into related fields such as greening businesses, while focusing on synergy with existing products. In response to increasing global awareness of environmental protection, we will also focus on expanding sales of biopesticides.

Product name	Classification	Sales and status of market penetration	Launch
TOPSIN-M (thiophanate-methyl)	Fungicide	· Become established in North and South America for soybeans · Expand sales in the markets of emerging economies, particularly for paddy rice in Asia · Achieve differentiation from generic products by developing mix formulations	1971
NISSORUN (hexythiazox)	Acaricide	· Consistent performance with corn and nuts in the US · Expand sales of fruit, vegetables, and tea in India	1985
MOSPILAN (acetamiprid)	Insecticide	· Expand sales of mix formulations for soybeans and corn in Brazil · Currently expanding sales as an alternative to competitors' products in Europe ▸ Increasing sales opportunities because of use restrictions on competitors' products ▸ Passed re-registration assessment for active ingredients in the EU, extended registration until 2033	1995
PANCHO TF (cyflufenamid-triflumizole)	Fungicide	· Consistent performance in Europe for fruit, vegetables, and wheat · Expand application to fruit and vegetables in the US	2003

The Nippon Soda Group's Businesses

Expertise in Trading & Logistics, Engineering, and Eco Solutions

Trading & Logistics

Nisso Shoji Co., Ltd. is a specialist trading company that handles functional chemicals, synthetic resins, industrial devices, and environment-related products. Since its founding, it has gone on to expand its business domains. Overseas, it is making progress with regional strategies suited to each market, predominantly in Asia and India. It has set agriculture, healthcare, the environment, and ICT as its strategic fields for growth, and is working to enhance its expertise and value propositions in these areas, and in turn become the expert in creating businesses that respond to environmental and social needs in local communities.

Sanwa Soko Co., Ltd. was established when the transportation and warehousing departments were spun off from Nippon Soda. With its accumulated knowledge in handling substances including particularly dangerous, toxic and hazardous chemicals and pharmaceuticals, the company boasts the latest logistics facilities, and is building logistics systems that can instantly respond to customers' needs. Based on its "safe and reliable" motto, the company provides high-quality, comprehensive logistics services that encompass everything from selecting logistics sites to delivery in and out of warehouses, storage, customs, distribution processing, and final delivery.

Engineering

Nisso Engineering Co., Ltd. offers a comprehensive range of engineering services for various plants, systems, and equipment, as well as post-delivery maintenance and energy-saving measures. In particular, the company has extensive expertise in manufacturing equipment and engineering technology for handling specialty chemicals and pharmaceuticals, and has earned a high degree of trust with its powder handling technologies. In doing so, it has established its position as a fine chemical engineering company that can accurately respond to customers' increasingly sophisticated and diverse needs.

Elsewhere, to differentiate its technologies and expand its business domains, in addition to increasing the sophistication of its milli-scale devices, anion adsorption, and other proprietary technologies, the company is working to improve its engineering capabilities and work productivity by utilizing AI and IoT.

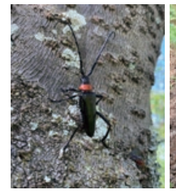
Eco Solutions

Nisso Metallochemical Co., Ltd. provides a wide range of environmental solutions using various technologies. These include high-difficulty waste treatment technologies for the treatment of specially controlled industrial waste and treatment to destroy fluorocarbons, and resource recycling technologies including those for the collection of zinc from electric furnace dust, the recycling of used sulfuric acid, and the collection of precious metals. By further increasing the sophistication of its technologies and enhancing its equipment, the company will contribute to the creation of a sound material-cycle society.

Spotlight

Measures to Counter the Increase in Harmful Insects Caused by Global Warming

Over the past four or five years, damage to trees in the rose family (which includes cherry, peach and plum trees) caused by the red-necked longhorn beetle, an invasive species not native to Japan, has become a major issue. Originally found in China, Taiwan, and other parts of Southeast Asia, the beetle commonly enters the country via overseas cargo. In the past these beetles could not withstand the Japanese winter, however, global warming and warmer winters mean they can now survive, and the damage they cause is spreading nationwide. The beetle has a high reproduction rate and can migrate through flight. When a tree is infested, the beetle's larvae will eat the inside, eventually causing the tree to wither. Wakayama Prefecture is a major production region for peaches and plums, and as such the beetles have been causing significant damage. Our insecticides MOSPILAN and Matsu Green 2 (both acetamiprid) demonstrate excellent efficacy against the red-necked longhorn beetle, and at the request from Wakayama Prefecture, we quickly registered further applications for these products. As a result, we have made significant contributions to pest control in the region.



An adult red-necked longhorn beetle

Damage caused by beetle larvae

Formulation and Promotion of Our DX Vision: Brilliance through Digitalization

At the Nippon Soda Group, one of the key challenges in our Long-term Vision Brilliance through Chemistry 2030 is to transition to a highly efficient business structure. To help us do so, we have formulated the Nippon Soda DX Vision as a strategy to help us promote digital transformations (DX).

We have grouped our DX measures into three areas: measures for production reforms, measures for research reforms, and measures for operational reforms. As the three pillars of our DX strategy, we will promote and implement these three groups of measures in an integrated manner to achieve the Long-term Vision.

In terms of production reforms, ahead of a declining working population, we will aim to streamline our production processes and create optimal production systems. For research reforms, we will promote speedy research and development and the advancement of our technologies in line with customer needs. Finally, for operational reforms, we will engage in fundamental reforms through the use of digital technologies.

Furthermore, to facilitate these DX measures, we will work to improve our environments for the usage of digital technologies and promote greater integration of our IT and operational infrastructure.

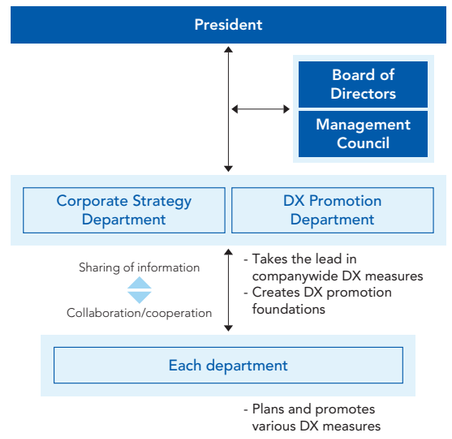
DX Vision: Details of Three Reforms

Production reforms	**Creation of environments toward the establishment of an integrated office for process control** - Implement on-site operational reforms using digital technologies - Promote smooth technology transfers	**Streamlining of production processes** - Examine introduction of IoT equipment - Promote optimal production and preventive maintenance using big data
Research reforms	**Initiatives for increasing the sophistication of core technologies** - Steadily implement research technology strategy* - Develop and advance AI/MI technologies	**Reinforcement of data science initiatives** - Thoroughly digitalize experimental records - Optimize research processes through innovative use of data
Operational reforms	**Creation of DX foundations** - Create digital information foundations, including the revamping of core systems - Create personnel foundations through DX education for all employees - Promote reinforcement of information security	**Optimization of operations** - Implement thorough structural reforms in all operations - Extend information sharing platform across the Group - Create an integrated center of operations

* Research technology strategy:
Brilliance through Chemistry 2030 See p. 26–27
https://www.nippon-soda.co.jp/e/rd_production/strategy.html

DX Promotion System

Led by senior management and other management-level employees, the DX Promotion Department and Corporate Strategy Department are responsible for the formulation of strategies for companywide DX measures. We have a system in place to plan and promote measures in all areas without exception, and employees are encouraged to embrace the idea that DX measures are much more than simply an extension of conventional operations.



Our Approach to Sustainability-focused Management

Utilizing our Responsible Care activities as a foundation, we will promote sustainability-focused management to respond to society's trust and contribute to sustainable development.

Osamu Shimizu
Director, Executive Officer
(Supervision of Administration and CSR Promotion)

At the Nippon Soda Group, to achieve sustainable growth and respond to the expectations of the next generation, we promote sustainability-focused management through CSR Activities to Protect Corporate Value and CSR Activities to Improve Corporate Value. At the foundation of our sustainability-focused management is Responsible Care (RC) with respect to the environment and society, and we have continued to engage in RC activities since our Declaration on the Promotion of Responsible Care Activities in 1998. Responsible Care voluntarily promotes health, safety, and environmental activities in everything from development, manufacturing, logistics, and use, to post-use disposal and recycling of chemical substances. The results of these activities are disclosed, and social dialogue completes the PDCA cycle. In this way, Responsible Care activities are closely linked to the core elements of sustainability-focused management: ethical behavior; response to social needs and quick, continuous improvements; and proper information disclosure and communication with stakeholders. We believe these are prerequisites for continued business activity, and have termed them CSR Activities to Protect Corporate Value.

On the other hand, we regard CSR Activities to Improve Corporate Value as our way to contribute to the creation of a sustainable society through the Group's businesses. We have identified Agriculture, Healthcare, Environment, and ICT as materialities (important issues) and as domains through which we can tackle the issues facing society. In addition to tackling social issues through our existing products and services, we will also aim to do so through the establishment and advancement of core technologies and the creation of new businesses through our research and technology strategy, as well as the enhancement and expansion of our businesses through business partnerships and M&As. This is our definition of CSR Activities to Improve Corporate Value, while our activities are also linked to the achievement of the Sustainable Development Goals.

For us to continue with CSR Activities to Protect Corporate Value and CSR Activities to Improve Corporate Value, it is essential that we thoroughly share our philosophy across all Group companies using a top-down approach, and this is where excellent corporate governance plays a key role.

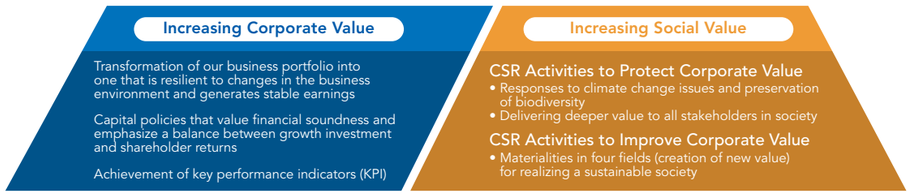
At the Nippon Soda Group, we have set up the Corporate Social Responsibility Administration Meeting, chaired by the President and Executive Officer, to serve as the chief decision-making body to promote CSR activities. Held twice a year, the Meeting is attended by all Company directors, executive officers, plant managers, and officers from main domestic Group companies. Through these meetings, management sets CSR targets, assesses results, and revises the targets as necessary to spiral up the PDCA cycle.

Reducing greenhouse gas (GHG) emissions is a key theme of sustainability-focused management. At Nippon Soda, through the Japan Chemical Industry Association, in 1997 we participated in the Voluntary Action Plan on the Environment,* in 2013 the Commitment to a Low Carbon Society,* and in 2021 the Keidanren Carbon Neutrality Action Plan.* Moreover, in April 2022 we set up a cross-organizational working group for the reduction of GHG emissions. Ahead of the achievement of carbon neutrality in 2050, by FY 2031 we are aiming to reduce GHG emissions by more than 30% compared with FY 2014.

As we aim for sustainability-focused management, the achievement of our Long-term Vision Brilliance through Chemistry 2030, is essential. In implementing strategies for our Long-term Vision, we recognize that human capital is our most important management resource. In our new human capital management vision, Make Employees Brilliant, we are promoting autonomy and growth of employees. Through flexible, efficient workstyles that enable employees to maximize their capabilities, we are aiming to create a virtuous cycle of value creation and greater employee fulfillment. Our ultimate aim is to create workplaces that fill employees with fulfillment and pride and that enable them to utilize their diverse values and strengths to maximum effect.

While we are working to achieve the KPIs and targets in our three consecutive medium-term business plans (Brilliance through Chemistry Stages Ⅰ-Ⅲ), we will work together as a group to drive a range of policies that will help us achieve the plans ahead of schedule.

* Led by Keidanren (Japan Business Federation)



Materiality Concept

In May 2020, Nippon Soda Group identified new materialities (important issues) in the four fields of Agriculture, Healthcare, Environment, and ICT to contribute to the creation of a sustainable society and increase corporate value in the Group's Long-term Vision Brilliance through Chemistry 2030, and its medium-term business plan 2020–2022 Brilliance through Chemistry Stage I. As a framework for increasing the effectiveness of the Group's materiality initiatives, we will utilize the monitoring functions of CSR Activities to Protect Corporate Value and CSR Activities to Improve Corporate Value.

Materiality Identification Process

Sustainable growth and relevance in our Long-term Vision was discussed and materiality was identified through the following steps:

Step 1	Extracting megatrends, risks and opportunities
Step 2	Extracting materiality for sustainable social development and increasing corporate value
Step 3	Confirmation of conformity with management policy and business strategy for the extracted materiality
Step 4	Approval by the Management Council and Board of Directors

Materiality

CSR Activities to Protect Corporate Value*

As a corporate organization that lives up to the trust of society, we will address three key issues: Initiatives for the Environment, Social activities, and Governance.

Initiatives for the Environment	• Tackling climate change (participation in the Keidanren Carbon Neutrality Action Plan.) • Tackling the preservation of biodiversity (promoting activities to preserve forests and water sources)
Social Activities	• Promoting dialogue with consumers, business partners and local communities, and responding appropriately • Promoting diversity, work-life balance and career programs • Conducting constructive dialogue with shareholders and investors and disclosing information in a timely and appropriate manner
Governance	• Enhancing corporate governance (transition to a company with an audit and supervisory committee) • Promoting compliance management (enhance and properly operate systems and conduct training)

p. 36–61

* As a manufacturer of chemical products, the Group's Responsible Care (RC) activities form the foundation of its CSR activities.

Responsible Care Activities

Management System and Organizational Governance	Environmental Protection	Process Safety and Disaster Prevention/ BCP
Occupational Safety and Health	Logistics Safety and Quality Assurance	Chemical and Product Safety
Together with Our Customers (Consumer issues)	Together with Our Employees (Human rights and labor practices)	Together with Our Business Partners (Fair operating practices)
Together with Our Shareholders and Investors	Together with Our Local Communities (Community involvement and development, social dialogue)	

For more details, see ESG Data Book 2023 (p. 9–12, p. 28–66)

CSR Activities to Improve Corporate Value

Aiming for the realization of a sustainable society, we are working on material issues in four fields: Agriculture, Healthcare, Environment, and ICT.

p. 24

Agriculture
Securing food and achieving sustainable agriculture
- Contribution to the global supply of food
- Diversification of crop protection
- Streamlining and improving labor efficiency in farming production

Healthcare
Healthy lives to all people
- Support services for high-performance products and formulation technologies

Environment
Toward a resource recycling society
- Steady supply of water resources
- Reduction of environmental burden caused by waste

Achieving sustainable plant protection
- Protection of precious trees, such as pines, from harmful insects

ICT
Applying the functionality of chemicals to IT devices
- Supply of high-performance materials that are friendly to the environment and people

As part of our efforts to conduct CSR Activities to Improve Corporate Value, the Nippon Soda Group states in the basic CSR policy that the Group will make contributions through business toward resolving social issues and to help achieve the development of a sustainable society. In line with the CSR policy, the Nippon Soda Group is addressing efforts to achieve the Sustainable Development Goals (SDGs) that allow us to make such contributions through our products.

One company cannot tackle all of the SDGs alone, but if many different companies throughout the world do what they can toward resolving these issues, we believe that the combined efforts will result in the realization of a sustainable society.

For more information on the Nippon Soda Group's CSR concept, please refer to the following website:
https://www.nippon-soda.co.jp/e/sustainability/

Stakeholders

The management philosophy of the Nippon Soda Group is to meet expectations from stakeholders, including customers, shareholders and investors, business partners, employees and local communities, and promote environmentally conscious business practices and activities. The Nippon Soda Group will continue to play a significant role in realizing the sustainable development of our society. At the same time, the Group is continuing to develop as a sought-after chemical group that meets 21st-century social needs by contributing to the creation of a prosperous society based on its desire to create new value through its unique technologies and products.

Messages from Supervisors at the Frontlines of Sustainability Promotion

For many years, the Nippon Soda Group has engaged in sustainability management with a focus on Responsible Care activities. Moving forward, with our on-site initiatives, we will work together as a company to promote sustainability management.

Odawara Research Center

Yukiko Tatsushiro
Department of Planning and Administration
Odawara Research Center
Research & Development Div.

At the Odawara Research Center, we continue to work to reduce our environmental impact in line with annual numerical targets. In recent years, we have reduced our CO_2 emissions by 10% by switching our boiler fuel from kerosene to city gas, and achieved an approximately 95% reduction (compared with a decade ago) in the usage of benzene, a hazardous substance, by revising our research processes. While responding to changes in environmental regulations, going forward we will continue with efforts to achieve a sustainable society.

Nihongi Plant

Goshi Masumura
Environmental Management Group
Responsible Care Administration Dept.
Nihongi Plant

The Nihongi Plant is located in a nature-rich area at the foot of Mt. Myoko, which boasts clean air and delicious water and rice. To protect this environment for future generations, all departments set targets while looking back on past performance and all employees engage in thorough activities to ensure zero environmental accidents. Plant employees also participate in local cleanup activities and host environmental talks with community members.

Moving forward, we will work with our local communities to create an environment conducive to clean air and water and healthy citizens.

Takaoka Plant

Masaki Arishima
Environmental Protection Group
Responsible Care Management Dept.
Takaoka Plant

For six consecutive years since 2017, the Takaoka Plant has achieved "zero emissions" of industrial waste (defined as the ratio of final disposal at landfill being less than 2% of the amount of industrial waste transported). Moving forward, however, we will work to bring the amount of final disposal at landfill to zero to play our part in the creation of a resource recycling society.

To do so, in addition to reducing the generation of waste, we must accurately recognize the properties of the waste and recycle it appropriately.

With an accurate understanding of our responsibilities and roles as a manufacturer that generates waste, we will step up our efforts to achieve a resource recycling society.

Mizushima Plant

Shunsuke Takechi
Responsible Care Management Team
Responsible Care & Engineering Div.
Mizushima Plant

As a plant that handles cyanide, a toxic substance, since launching operations at the Mizushima Plant we have engaged in environmental management activities with a focus on ensuring zero negative impact on the surrounding environment.

We are currently undergoing a generational change of personnel in charge, and passing on the required technologies is a pressing task. We will carefully convey our past experiences and engage in the necessary RC activities to continue ensuring zero environmental abnormalities and cases of noncompliance.

Chiba Plant

Toshiyuki Fukami
Responsible Care Section
Responsible Care & Engineering Dept.
Chiba Plant

At the Chiba Plant, as part of our efforts to secure certain planting spaces, we developed and increased greenery around nearby disused train tracks and planted 50 cherry trees. We also concluded a greening agreement with the local prefecture and municipalities on September 6, 2021. Moreover, since 2016 we have supported efforts to protect himekomatsu (Japanese white pine), a critically endangered species in Chiba Prefecture, and are continuing to protect local biodiversity.

Nisso Technical Training Center

Hiroyuki Iwaki
Director
Nisso Technical Training Center

At the Nisso Technical Training Center, rather than blindly following rules, predetermined processes, and past examples, we believe it is essential for each individual to think about how something should really be in order to sustain their workplaces, their plants, and the Company as a whole. We therefore drill this approach into the mindset of all course participants.

Environmental Strategy

As work to tackle global issues such as global warming and resource depletion advances, shifts in the structure of industry are becoming more apparent. At the Nippon Soda Group, in addition to engaging in environmental protection activities to minimize the negative impact of our own business, by creating new value through the power of chemistry and ensuring the continuous development of our business, we are aiming to achieve a sustainable society and improve our corporate value.

For more details, see ESG Data Book 2023 (p. 28–32)

Basic Policy

- Continuing efforts to prevent environmental pollution, complying with laws and regulations, and promoting other environmental activities.
- Reduction of environmental burden associated with business operations (prevention of global warming, and reduction in the amount of waste generated and amount of final disposal at landfill).
- Development of products and processes with less environmental burden.
- Implementation of an environmental management system. Reduction in energy consumption while maintaining productivity.
- Water resources conservation.
- Reduction of impact on biodiversity and ecosystems.

Environmental Protection Targets of the Nippon Soda Group (New Medium-Term Activity Targets for FY 2024)

	Target	Initiatives
(1) Environmental abnormalities	Zero events	Implement measures for reducing risks by evaluating environmental impact Plan and implement measures to prevent problems caused by human error
(2) Energy		
1. Energy intensity	1. Annual improvement of 1%	1. With an eye to meeting the reduction target, focus on improving the energy intensity through setting, implementation, and evaluation of themes for improvement
2. Energy intensity in logistics	2. Annual improvement of 1%	2. With an eye to meeting energy-saving logistics targets, focus on improving the energy intensity in logistics through setting, implementation, and evaluation of themes for improvement
(3) Reduction of greenhouse gas emissions	Reduce GHG emissions of the Nippon Soda Group by 20% or more in FY 2026 and by 30% or more in FY 2031 (both compared with FY 2014) Eliminating fluorocarbon leakage issues in fluorocarbon equipment	With an eye to meeting the reduction target, implement improvement measures in conjunction with energy-saving activities; conduct periodic inspections and maintenance of fluorocarbon equipment
(4) Water resources conservation	Monitor water resources and promote efficient water use	Maintain and improve water quality in wastewater from business sites and consider reducing water consumption
(5) Industrial waste		
1. Amount of final disposal at landfill	1. Annual reduction of 3% in amount of final disposal at landfill	1. With an eye to meeting the reduction target, focus on improving the waste generation rate through the setting, implementation, and evaluation of themes for improvement
2. Zero emissions	2. Continuation of zero emissions	2. Continue to achieve zero emissions at all worksites by reducing the amount of final disposal at landfill and amount transported to industrial waste disposal facilities
3. Waste plastics	3. Reduction of emissions and promotion of recycling	3. Examine ways to reduce emissions and promote recycling
(6) Emissions of harmful substances into the atmosphere	Annual improvement of 1%	Plan and implement measures to reduce emissions of harmful substances
(7) Reduction of impact on biodiversity and ecosystems	Continue activities to reduce the impact on biodiversity and ecosystems	Contribute to the preservation of biodiversity by reducing environmental burden through environmental protection activities; strive to enhance, collaborate, and cooperate in the field of biodiversity through communication with relevant organizations

Responses to Climate Change Issues

Efforts to prevent global warming are critical. Nippon Soda participates in the Keidanren Carbon Neutrality Action Plan, a voluntary action plan promoted by Keidanren (Japan Business Federation). Under the action plan, we are promoting energy saving to achieve the greenhouse gas (GHG) emissions reduction targets. Our medium- to long-term targets are to achieve a more than 20% reduction in groupwide GHG emissions by FY 2026 (compared with FY 2014) and a more than 30% reduction by FY 2031 (compared with FY 2014).

Reduction of energy consumption and greenhouse gas emissions

We are engaged in a wide range of measures to reduce our energy intensity. These efforts include replacing our aging equipment with high-efficiency equipment, streamlining and increasing labor efficiency in our production processes, and implementing energy-saving measures. Furthermore, we use the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas (GHG) Emissions Throughout the Supply Chain when calculating GHG emissions from our business activities (Scopes 1 and 2) as well as indirect emissions from outside our business activities (Scope 3). In this way, we work to reduce emissions throughout the supply chain.

Use of renewable energy

At the Nihongi Plant, we draw industrial water from a nearby river and use the difference in elevation when returning it to the river for small-scale hydroelectric power generation. Since its construction in 1940 the plant has been effectively using this energy in its production activities. Moving forward, we will carefully maintain the power generation facilities at the plant as a stable source of renewable energy.

Promotion of energy saving by the Logistics Department

As a specified consignor under the Act on the Rational Use of Energy, every year we submit a periodic report and a medium- to long-term plan to the Ministry of Economy, Trade and Industry, and work to reduce our energy intensity.

We have been making efforts to improve logistics efficiency and reduce environmental burden through measures such as modal shifts in transportation, reducing the frequency of trips by using larger transport containers, and adjusting distribution routes. In 2013, we were certified with the Eco Rail Mark from the Ministry of Land, Infrastructure, Transport and Tourism for our modal shift initiatives.

Information Disclosure Based on the TCFD Recommendations

Reducing carbon dioxide and other greenhouse gas emissions (GHG) is a common challenge facing the whole of international society. Recognizing the importance of early action, at the Nippon Soda Group we will strive to engage in our own efforts to reduce GHG emissions as a member of international society. Furthermore, we will ascertain the medium- to long-term business risks and opportunities presented by global warming and other environmental changes, as well as by transformations in the structure of industry that seek to prevent these issues, and aim to achieve a sustainable society and improve our corporate value through continuous business development.

At the Nippon Soda Group, we have announced our support for the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). We have also established the GHG Emissions Reduction Working Group, which is responsible for setting numerical targets, examining countermeasures, and verifying the effectiveness of the countermeasures. Here we introduce our climate change initiatives in line with the TCFD's four recommended areas of disclosure: governance, strategy, risk management, and metrics and targets.

Governance

We have set up the Corporate Social Responsibility Administration Meeting, chaired by the President and Executive Officer, to serve as the chief companywide decision-making body for promoting CSR activities, including response to climate change. Held twice a year, the Meeting is attended by all Nippon Soda directors, executive officers, plant managers, and officers from main domestic Group companies. Through these meetings, management sets CSR targets, assesses results, and revises the targets as necessary to ensure continuous improvement, and in turn improve the PDCA cycle.

Strategy

We view the increase in costs required to comply with regulations, such as the carbon pricing system, as a major impact of climate change, and have thus set GHG emissions as a climate change performance indicator. Furthermore, to cater to demand for environmentally friendly products, we are engaged in the development of agrochemicals that can counter the increase in pests caused by rising average temperatures; water treatment agents that can help conserve water resources; and hydrogen manufacturing and storage technologies that can help achieve the hydrogen economy.

Predicted Climate Change Risks and Opportunities

Category		Details	Period of emergence	Level of impact on business
Transitional risks	Policies/Laws and regulations	Increase in costs required to comply with regulations, such as carbon pricing	Medium term	Major
	Technology	Increase in investment and R&D costs for the transition to low-carbon technologies	Medium term	Moderate
	Market	Lower demand for existing products due to changes in user selection criteria	Medium term	Minimal
Physical risks	Acute risks	Negative impact on production caused by typhoons, floods, droughts, and other natural disasters	Short term	Moderate
	Chronic risks	Increase in pests due to rising average temperatures and lower harvest yields	Medium to long term	Major
		Difficulty in securing water resources	Long term	Minimal
Opportunities	Resource efficiency	Reduced energy costs due to greater efficiency in production and transport	Long term	Moderate
	Products	Increase in demand for environmentally friendly products and agrochemicals that counter the increase in pests	Medium term	Major
	Market	Response to integrated pest management	Long term	Moderate

Risk Management

Following discussions with the departments responsible for overseeing risks, once a year we specify risks, assess their level of impact, and identify major elements, and then formulate an action plan for the specified risks. This plan is examined and reviewed by management through the Corporate Social Responsibility Administration Meeting, and incorporated into the management plan of the entire Company.

Metrics and Targets

We have set GHG emissions as our climate change performance indicator. Furthermore, we also disclose the results of our Scope 1, 2, and 3 GHG emissions. For Scope 1 and 2, we aim to achieve a more than 20% reduction in groupwide GHG emissions by FY 2026 (compared with FY 2014) and a more than 30% reduction by FY 2031 (compared with FY 2014). In FY 2023, Scope 1 and 2 GHG emissions fell 25.1% over FY 2014 (Nippon Soda, non-consolidated).

For more details, see ESG Data Book 2023 (p. 80)

Effective Use of Resources and Reduction of Industrial Waste

We participate in the Voluntary Action Plan for Establishing a Sound Material-Cycle Society promoted by Keidanren (Japan Business Federation). Under the action plan, we promote industrial waste reduction to achieve the target amount of reduction in the final disposal of industrial waste at landfill.

Proper management of industrial waste and reduction of the final disposal amount of industrial waste at landfill

As one of our efforts to help build a sound material-cycle society, Nippon Soda reduces the amount of industrial waste emissions from a long-term perspective and, at the same time, promotes the recycling of industrial waste items and implements other measures to reduce the final disposal amount of industrial waste at landfill.

Zero emissions

Although up until the year before last Nippon Soda achieved zero emissions* for 11 consecutive years, last year waste emissions increased in line with the disposal of raw materials due to structural reforms at the Nihongi Plant.

* When the ratio of the amount of final disposal of industrial waste at landfill compared with the amount transported to the industrial waste disposal facility is small. We define "Zero emissions" to be when the ratio of landfill waste is 2% or less.

PCB (polychlorinated biphenyl) waste

Each Nippon Soda site properly stores and manages condensers, transformers, mercury lamp ballasts, and other items which contain PCBs and disposes of them appropriately and systematically in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, which was revised in 2016. Moreover, we completed disposal of all equipment using high-concentration PCBs in January 2023.

Atmosphere and Water Quality Conservation

Nippon Soda implements various measures to protect the atmosphere and water quality, such as reducing emissions of chemical substances subject to the PRTR system and reducing emissions of harmful substances into rivers and other bodies of water, in accordance with the Air Pollution Control Act, the Water Pollution Prevention Act, and the latest regulatory trends.

Reduction of chemical substances specified by the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR System)

We are making efforts to reduce emissions of Class I Designated Chemical Substances specified by the PRTR System, one of two sections contained in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

Reduction of emissions of harmful substances into the atmosphere

Twelve chemicals among those categorized as priority substances under the Air Pollution Control Act are designated as voluntarily controlled chemical substances by the Japan Chemical Industry Association (JCIA). Of the 12 chemicals, the Company currently handles the following six substances: chloroform, dichloromethane, 1,2-dichloroethane, ethylene oxide, 1,3-butadiene and benzene. We are implementing measures to reduce the emissions of these six substances.

Reduction of air pollutant emissions

Nippon Soda promotes the reduction of emissions of sulfur oxide (SO_X), nitrogen oxide (NO_X), and soot and dust. Emissions of these substances from stationary sources are controlled under the Air Pollution Control Act.

Actions to conform to the Fluorocarbons Emission Control Act

To comply with the Fluorocarbons Emission Control Act, we implement periodic inspections by those with expertise, simplified inspections by the Inspection Manager, measures to prevent fluorocarbon emissions, and other required activities at one worksite at a time.

Reduction of harmful substance emissions into rivers and other bodies of water

Nippon Soda has made its voluntary standards stricter than the national regulatory values and the standard values agreed with local municipalities. Based on these strict values, we manage water quality through the monitoring of pollutants and purification at wastewater treatment plants.

Preservation of Biodiversity

Nippon Soda has been taking measures to reduce its environmental burden, use water resources effectively, and prevent pollution of air, water, and soil, mainly in areas where its production sites are located. In recent years, we have added conservation of biodiversity as a priority issue and have been carrying out viable activities that can be implemented at each of our worksites.

Breeding of killifish originating from the Sakawa river system (Odawara Research Center)

Odawara City, Kanagawa Prefecture, has been promoting protection activities for killifish, which are listed as an Endangered Species Category II by the Ministry of the Environment. In 1999, we conducted the Medaka-no Otosan Okasan Sato-oya Seido ("Killifish Fosterparent Program"), which involves working to protect their habitat and helping to pass their genes down to the next generation.

Supporting the protection of himekomatsu (Japanese white pine), a critically endangered species (Chiba Plant)

The Chiba Plant has continued with the Himekomatsu Supporter project it started in 2016 to protect himekomatsu, an endangered tree species in Chiba Prefecture.

Environmental Protection Activities through the Nippon Soda Group Forest

On the occasion of the 100th anniversary of our establishment, we began initiatives to protect greenery and water sources as a contribution to the achievement of the SDGs. The Nippon Soda Group established the Nippon Soda Group Forest within the Joetsu KUWADORI Community Forest in Joetsu City, Niigata Prefecture, the location of the Company's origin, and continues to make donations to the National Land Afforestation Promotion Organization in order to contribute to the creation of a forest of biodiversity and environmental protection.

Nippon Soda Group Forest blueprint

Water level at the Suga Lake (July 18, 2023)

Human Resources Strategy

Human resources are our most valuable management resource as we work to improve our corporate value ahead of our Long-term Vision Brilliance through Chemistry 2030. At the Nippon Soda Group, our human resources boast diverse values and strengths, and to ensure that they can maximize their capabilities, we are striving to promote diversity, human resource development, and the creation of workplaces where they can work with a sense of fulfillment and pride.

For more details, see ESG Data Book 2023 (p. 52–56)

Basic Policy

- Respect for the dignity and human rights of all people.
- Understanding the diversity of cultures, customs, and values and having no tolerance for actions that result in discrimination.
- With particular emphasis on promoting diversity and the creation of a rewarding workplace that all Nippon Soda Group employees can be proud of, we proactively review our personnel and operation systems to ensure the constant improvement of these systems.

Policy for Our Human Capital Management Vision—Make Employees Brilliant

By enabling employees to work with energy and enthusiasm, and reinvigorating the organization as a whole, we believe we can improve both productivity and profitability, and in turn link this to further employee success. To create this virtuous cycle, we have formulated the Make Employees Brilliant human capital management vision and are promoting a range of related measures.

In terms of human resources development, we are examining and implementing various measures with a focus on the development of greater autonomy.

Moreover, in addition to facilitating flexible, efficient workstyles to allow employees to maximize their capabilities, we are working to improve workplace environments while at the same time promoting health and productivity management.

Promotion of Diversity

Diversity is one of our primary strategies for maintaining a high level of global competitiveness and sustainable growth. We believe that the creation of such a diverse work environment and organization that allows each and every one of our employees to demonstrate their abilities to the fullest extent, to grasp changes in the environment, and to work with a positive mindset will lead to innovation.

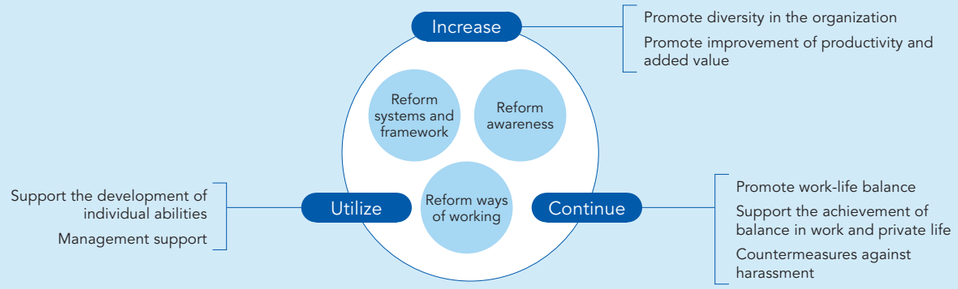
Diversity Policy

The aim of our Diversity Policy is to develop the Company by bringing together diverse people, regardless of gender, age, nationality, race, religion, and disability, while providing opportunities to gather and exchange different ideas.

We believe that having a workforce with diverse values is essential for generating innovation and increasing global competitiveness. In this context, we recognize the promotion of diversity as an important management strategy.

As part of these efforts, we are building a foundation with both tangible and intangible measures, including a shift to a personnel system that makes the most of diverse human resources, improvement of the organizational climate, and improvement of the workplace environment. We aim to be a company where motivated and capable employees from around the world can thrive, growing sustainably together with them.

Three Pillars of Promoting Diversity



Embracing Diversity (Support for Women and Disabled Persons)

At Nippon Soda, we place emphasis on employing diverse candidates regardless of gender, age, nationality, race, religion, disability, and regardless of whether they are new graduates or mid-career hires, so as to create a more diverse organization. A group of people with different values should give its members the impetus to broaden their outlook and change their viewpoint.

Workplace diversity training programs designed for directors and executive officers, as well as other specific positions, with the aim of raising their diversity awareness are provided to help them recognize diverse values and to empower individuals and organizations.

For more details, see ESG Data Book 2023 (p. 54)

Acquired Eruboshi Certification Based on the Act on Promotion of Women's Participation and Advancement in the Workplace

In August 2018, Nippon Soda was awarded Eruboshi certification by the Minister of Health, Labour and Welfare. It is awarded to companies with excellent implementation of initiatives to promote the active participation of women. This certification system is based on the Act on Promotion of Women's Participation and Advancement in the Workplace, and companies with an excellent implementation status that have formulated an action plan for the promotion of women's participation and submitted a notification to that effect are eligible to receive certification. The Company met the criteria in four items, including hiring, working hours, ratio of managers, and diversity in career courses, and was awarded the Level 2 Eruboshi certification, out of the three levels. In our action plan, we formulate and implement plans to ensure the success of our female employees with the aim of increasing corporate value and sustainable growth through diversity.

Eruboshi certification mark
(Level 2 certification)

Acquired Kurumin Certification Based on the Act on Advancement of Measures to Support Raising Next-Generation Children

Nippon Soda works to promote healthy work-life balance. We have made efforts to create workplaces that allow our employees to enjoy their work and private lives in good health, and ensure job continuity even while dealing with lifestyle changes, including childbirth, childcare and other caregiving. As a result of these efforts, in October 2020 we acquired Kurumin certification from the Minister of Health, Labour and Welfare, designating Nippon Soda "a company in support of childcare."

Personnel Employment and Development Strategy to Enhance Corporate Value

Enhanced Recruitment Efforts

With an eye on Nippon Soda's next generation, we are focusing on strengthening our recruiting activities to create an environment in which employees with diverse values can engage in friendly competition without being limited by past experience. For newly hired graduates, we are working to deepen understanding of the Company in as many people as possible, regardless of gender, age or nationality, by featuring accounts from female employees on our website and by carefully responding to questions during online seminars and other events. At the same time, we shall continue to expand employment opportunities for a diverse range of human resources, including mid-career hires and people with disabilities.

Human Resources Development

Regardless of role or rank, the ideal traits for human resources at Nippon Soda are independence and the ability to learn, think, and act autonomously. Based on this vision, we are examining and implementing various measures to cater to changes in workforce compositions, including the rise in number of female employees; to ensure a smooth transition between senior employees and the next generation; and to respond to increasingly diverse approaches to workstyles and careers.

In addition to our conventional on-the-job training, position-based training, and support for self-development, recently we have introduced a multi-track promotion system for management staff (leadership and expert courses depending on aptitude), a career development support system (self-analysis support, meetings with human resources dept. and managers, career training), and an early selection system to identify candidates for high-ranking positions, as well as established the Nisso Technical Training Center for frontline manufacturing staff (development of human resources who can manage safe and highly productive manufacturing sites).

Educational Programs (Position-based Training)

Position	Position-based training	Career Development Support Program	Self-development support
Executives	Executives training		e-Learning / Correspondence training / Language training / Business skills acquisition support / Deployment to external organizations
Managers	Level 3 training Level 2 training Level 1 training		
Assistant managers	Assistant managers training		
Staff employees	Follow-up training	Career training (advanced) (at 10 years of employment) Career training (basic) (at 5 years of employment)	
New employees	Orientation training	Tutor instructions (Specialized work) On-site practical training (Administrative work)	

Transferring Technologies to the Next Generation

Aiming to transfer technologies and develop employees who can maintain the safety and high productivity of manufacturing workplaces, in FY 2016 we launched the Nisso Takaoka Academy at the Takaoka Plant to provide systematic training programs for newly employed manufacturing personnel.

The emphasis of the training is on experiential learning. With their safety assured, participants can experience falling from a high place, encounter water and gas leaks resulting from loose bolts, and come up against other situations that they cannot experience from desk-based learning. Participants are provided with opportunities to experience simulated risks and failures that would not be possible during on-the-job training. The valuable experience they gain through these programs helps increase their awareness of the need for accuracy and safety in their work, which can then be applied to their activities in the workplace.

In FY 2020, we commenced a two-year plan to expand educational facilities and increase equipment used for safety education, and in April 2021, we established the Nisso Technical Training Center. To further enhance safety awareness, we will provide experiential safety education to other employees in addition to newly employed manufacturing personnel.

Rewarding Workplaces That Employees Can Be Proud of

The Nippon Soda Group focuses proactive efforts on creating a work environment in which each and every employee feels a sense of fulfillment and can maximize their abilities. We support employee growth, and encourage autonomous career development. At the same time, we gather feedback from labor unions and other channels on what systems and work environments are desirable to support employee growth, strive to reduce overtime work, and take measures to address these issues. In addition, we also provide platforms for reviews so that those in management can work more efficiently.

Promoting Workstyle Reform through Digital Transformations

In April 2022, we established the DX Promotion Department for the comprehensive promotion of companywide digital transformations (DX), be it increasing the sophistication of manufacturing and research technologies using digital technologies or the enhancement of operational efficiency across the Company. In R&D, we are working to speed up the development of new products by introducing AI into the operation of electronic lab notebooks and materials informatics. In production technology, we are using predictive technologies for equipment maintenance, digital technologies for streamlining production personnel, and big data for stable plant operations. We are also proactively developing data scientists and human resources who can drive our DX measures.

Meanwhile, one of the elements of our Long-term Vision Brilliance through Chemistry 2030 is comprehensive workstyle reforms. In this area, we are aiming to create fulfilling workplace environments where employees can fulfill their potential. Together with the introduction of a work-from-home system for employees at our Head Office and some of our sales offices in 2022, we also moved toward paperless office environments and introduced unassigned seating plans, reducing office size while enhancing office environments. With these workstyle changes taking root, in November 2023 we decided to relocate our Head Office. By moving to an efficiently designed office that is more conducive to working comfortably, we will aim to enhance employees' creativity, improve productivity, and further create a sense of unity among employees and management.

Moving forward, we will further promote workstyle reforms as we aim for greater operational efficiency led by digital technologies and better work-life balance.

Highlight

Fulfillment and Pride Through Diversity

Akemi Osawa

Executive Officer and General Manager, Odawara Research Center, Research & Development Division

- 1989: Joined Nippon Soda Odawara Research Center
- 1992: Nisso Chemical Analysis Service, Odawara Business Office
- 1994: Kinetics and Pharmacological Group, Biological Research Department, Odawara Research Center
- 1998: Intellectual Property Department
- 2017: Manager, Intellectual Property Department
- 2022: Deputy General Manager, Odawara Research Center
- 2023: Executive Officer General Manager, Odawara Research Center, Research & Development Division

We value diversity and engage in ongoing dialogue. My focus is on the new value and understanding of diversity that comes with frequent dialogue.

In 2023, I became an executive officer at Nippon Soda. Through my various experiences in the 34 years I have been at the Company, I have learned the importance of accepting ideas different to your own and the value of carefully listening to others in discussions.

When I joined the Company, I was first assigned to the Odawara Research Center where I was in charge of agrochemical development. At the time, I was working on solutions to issues at the biological and synthesis departments. The opportunities I had to work with other departments and try new things were irreplaceable. I then moved onto the Intellectual Property Department, where for the first time I worked on patent infringement cases. Despite not having experience in this field, I was able to succeed with the help of my team. This was the time when imitation products of our insecticide MOSPILAN (acetamiprid) were increasing in frequency overseas, and we were working on lawsuits to stop these infringements. As part of my role I would speak with local lawyers, and the differences in overseas customs and cultures taught me the importance of fostering a mutual understanding. Later, I was appointed manager of the department, and in contrast to the top-down leadership of my predecessor, I worked to ensure thorough communication with my junior employees and built a team in which we could work together.

Diversity promotion has been garnering attention in recent years, but people tend to think of the term within the framework of gender and nationality. For me, however, diversity means to respect the diverse values of people from different backgrounds, and I hope that increased diversity can create more comfortable working environments and inspire people to take on different challenges. As general manager of the Odawara Research Center, I am currently engaging in in-depth discussions with our researchers. I believe that people are most efficient when they find their work fulfilling, and so sticking to the unique dialogue-focused style of leadership I have developed to date, I will strive to create a fulfilling place to work.

Humberto Mitio Horikoshi

Agro Chemicals Section, Development Department, Agro Products Division

- 2018: Joined Nippon Soda Field Research Department, Haibara Field Research Center
- 2020: Biological Research Department, Odawara Research Center
- 2021: Development Department, Agro Products Division

Utilizing my global skills, I am delighted to be able to accumulate new experiences in my role

I am originally from Brazil, and joined Nippon Soda in April 2018 after acquiring my Ph.D. in agriculture at a Japanese university. For the first three years, I worked at the Haibara Field Research Center and the Odawara Research Center on biological assessments and research, and currently I belong to the Development Department within the Agro Products Division at the head office. Specifically, I am involved in the development of herbicides for use both in Japan and overseas. I have only known a narrow world of research so far, and so I feel this is an incredible opportunity to encounter new values and broaden my horizons. My senior colleagues are carefully teaching me the ropes and we engage in frequent communication. It is very inspiring to speak to people from different areas of expertise and I am learning a great deal every day. The work is very fulfilling, and I am able to use my language skills in Japanese, English, and Portuguese to liaise with overseas departments and on overseas business trips. In addition, the Company has a system that enhances individual productivity through telecommuting and staggered work hours, which is attractive for me from the perspective of work-life balance. I look forward to further diversity in the Company's employment of human resources as this will bring together people of various backgrounds, improve workforce creativity, and boost organizational growth. In turn, I hope we can create an organization in which every individual can shine. As an employee hailing from outside Japan, I will utilize my past experiences and take pride in contributing to the Company's success.

Supply Chain Management

At the Nippon Soda Group, compliance and other matters to ensure the execution of sound corporate activities are set forth in the Nippon Soda Group Code of Conduct, and we strive for thorough compliance with laws and ordinances. Furthermore, in addition to conducting fair and impartial transactions as a member of international society, we aim to build a sustainable supply chain that is both environment- and society-friendly based on constructive dialogue with our business partners.

For more details, see ESG Data Book 2023 (p. 57–58)

Basic Policy

- Interaction with our business partners with good sense and integrity, and engagement in fair and impartial transactions.
- Regarding the procurement of raw materials and other purchasing activities, maintaining stable relationships of trust with our business partners based on our purchasing policy.

Promotion of CSR Procurement Activities

We engage in purchasing activities while checking the safety and environmental and social impact of our chemical products from manufacture to delivery. This includes collecting information from trading companies, who serve as intermediaries, and on-site audits alongside the quality control departments of each of our plants.

Through the exchange of diverse information, we are working to build relationships with our business partners that facilitate mutual development, and aiming to ensure sustainable procurement activities by cultivating deeper cooperation and understanding of our Purchasing Policy.

Society- and Environment-friendly Supply Chain

From a sustainability standpoint, we use both paper surveys and on-site inspections to monitor the suppliers of the main natural resources we use—industrial salt and pulp—to check the following matters.

(1) Compliance with laws and ordinances, and social norms and fair transactions
   a. Compliance with relevant laws and ordinances and social norms
   b. Compliance with internal regulations regarding hospitality and gifts, and prevention of bribery and other corruption
   c. Appropriate management of confidential and personal information stemming from transactions

(2) Environmental considerations
   a. Protection of natural ecosystems and global and regional environments
   b. Prevention of environmental pollution
   c. Promotion of efforts to reduce GHG emissions and tackle climate change
   d. Promotion of resource- and energy-saving measures
   e. Reduction of waste

(3) Social considerations
   a. Coexistence with regional communities and efforts to contribute to society

(4) Support for human rights and protection of workers' rights
   a. Provision of safe, hygienic workplace environments
   b. Elimination of child and forced labor and discrimination
   c. Respect for workers' rights through appropriate management of wages and working hours, etc.

(5) Material traceability
   a. Materials are not illegally picked or the result of illegal deforestation
   b. Materials are not associated with serious social conflicts

At Nippon Soda, when agreeing on purchase specifications with our material suppliers, we check for the acquisition of ISO 9001 and 14001, the presence or absence of conflict minerals,[1] and any independent concentration management criteria in place at the material treatment location to protect workers' health. In doing so, we ascertain the level of impact the material and its supply have on the environment and society.

Furthermore, regarding chemical substances that are subject to restrictions due to their impact on the environment, safety, and health, we aim for smooth information sharing across the supply chain, and request that suppliers provide information on contained materials using the chemSHERPA format.[2]

1. Materials are checked based on the Conflict Minerals Reporting Template put together and provided by the Responsible Minerals Initiative.
2. A format promoted by the Joint Article Management Promotion-consortium to enable appropriate management of information on chemical substances contained in articles, etc., and ensure smooth disclosure and communication of said information across the supply chain to enhance industrial competitiveness.

Process Safety and Disaster Prevention

At the Nippon Soda Group, recognizing that the continuation of safe, stable production activities and the stable supply of products and services is fundamental to our business activities, we promote process safety and disaster prevention activities. Furthermore, we are constantly working to improve our business continuity plan so that we can quickly recover and restart production activities in the event of a natural disaster or other emergency, and at the same time reinforcing our stable supply structure.

For more details, see ESG Data Book 2023 (p. 33–38)

Basic Policy

- Regular inspections, repair and renewal of equipment and training of operators at each manufacturing site.
- Improvement of the risk management system through emergency drills and education to prepare employees for possible accidents and disasters.
- Safety reviews by internal experts to verify safety when facilities are constructed or renovated. Regular diagnoses of disaster prevention capabilities by external specialists.
- Regular reviews and improvement of the business continuity plan (BCP), which is designed to ensure preparedness for natural disasters such as large-scale earthquakes and other emergencies that could result in extensive damage.

Risk Management

Risk assessment of process safety and disaster prevention	We conduct risk assessments related to safety and disaster prevention for facilities, machines and manufacturing processes. Identified risks are prioritized and, accordingly, measures to ensure the safety of facilities are implemented and inspections are conducted in sequence.
Establishment of an emergency risk management system	We give the highest priority to preventing accidents and disasters. On the other hand, to prepare for accidents and disasters, we have established an emergency risk management system and conduct periodic drills and exercises to maintain the system in sound condition.
Standards on Emergency Response	The Standards on Emergency Response have been developed to ensure prompt and appropriate communication, response, and instruction in the event of a disaster or accident, and their effectiveness is reviewed and revised periodically, and confirmed through training.

Safety Management

Safety audit to confirm the safety of plants

To ensure the safety of processes in the construction and renovation of facilities, Nippon Soda Group managers and internal experts conduct safety reviews and audits for facilities and operations in terms of safety, work environment, quality and other factors.

Facilities of Group manufacturing companies undergo periodic Responsible Care (RC) audits to assess the management conditions of manufacturing facilities and these results have been incorporated into activities to improve process safety and disaster prevention.

Education and Drills for Disaster Prevention

Nippon Soda provides a variety of process safety and disaster prevention training for employees to acquire the knowledge and skills to ensure their safety. We will continue to promote safety and disaster prevention activities with the aim of further improving our safety and disaster prevention activities to achieve the target of "no major accidents at facilities."

Group training

Each department conducts regular education and training in accordance with the CSR activity plan. We provide new employees with new employee training on safety and basic operations. Moreover, in addition to new employees, we are also working to improve safety awareness by extending our educational programs to employees in various other positions.

Disaster prevention system involving local communities

Each Nippon Soda site implements regular disaster drills, which include drills conducted in cooperation with other nearby plants and local communities. By forecasting different disasters in line with the environments and conditions in each region, we are implementing disaster drills that closely simulate actual conditions.

BCP

In the event of a natural disaster such as a large-scale earthquake or other crisis that can result in serious damage to the Company's worksites, our social responsibility is to ensure the safety of local residents, full-time and temporary employees and partner company employees. Based on this concept, the principles of the BCP are defined as follows:

(1) The highest priority is placed on checking the status and ensuring the safety of Nippon Soda's own employees, partner company employees and temporary employees and their families, and ensuring the safety of residents in communities where the Company's business sites are located.
(2) The consciousness of serving the public and community is shared among all personnel throughout the Company.
(3) Efforts are focused on protecting the safety of any affected Head Office, plant, research center, or sales office sites.
(4) Measures should be taken to establish a system that allows Nippon Soda's employees, partner company employees and temporary employees who are engaged in ensuring safety and security to act flexibly and at their discretion according to the circumstances.

Supply of products according to customer demands

The BCP of Nippon Soda aims to ensure, in the event of a natural disaster or other crisis, safety as well as the supply of products to customers as requested. To achieve this objective, improvement is accelerated using the PDCA cycle.

Occupational Safety and Health

At the Nippon Soda Group, we believe that it is people who enhance the competitive advantage of the Company. We also believe that people are the most important management resource in bringing about sustainable growth. To ensure employee motivation and create workplaces that are full of energy, we strive to prevent occupational accidents and health issues, promoting health and productivity management so that both employees and their families can maintain and improve their physical and mental health.

For more details, see ESG Data Book 2023 (p. 39–43)

Basic Policy

- Introduction of an Occupational Safety and Health Management System (OSHMS), and implementation of risk assessments. Acquisition of ISO 45001 certification.
- Continuous implementation of PDCA (Plan-Do-Check-Act) to ensure safe and healthy workplaces with the aim of achieving the goal of zero occupational accidents.
- Provision of health guidance based on medical examination results and implementation of measures to reduce incidents of personal injury or illness to help employees maintain and improve their health.
- As a mental healthcare service, we perform stress tests and provide consultation services by qualified mental health specialists. We have established and are operating a system that allows us to take appropriate action.

Implementation of Risk Assessment

We are systematically improving the achievement and performance of the targets we have set through the PDCA cycle set out in OSHMS. To integrate OSHMS and Responsible Care (RC activities) effectively, we also emphasize OSHMS risk assessment. Each office (plant or research center) periodically identifies and assesses occupational accident risks and, if they are not acceptable, takes measures to minimize them.

Efforts to Prevent Occupational Accidents

Establishment of Safety and Health Committees

In line with Article 19 of the Industrial Safety and Health Act, at Nippon Soda we have established Safety and Health Committees at each of our worksites. The committees meet once a month, aiming to prevent occupational accidents and health hazards, and maintain and promote employee health. In addition, we have also established a Central Safety and Health Committee, chaired by the Responsible Care Management Department General Manager. It comprises safety and health supervisors from each department and worksite, and meets in principle twice a year. In addition to the views of management, the central committee incorporates wide-ranging opinions from labor unions and health insurance associations in order to improve working environments.

Activities to reduce occupational accident risks

Mainly in accordance with activity plans set forth in OSHMS, we are reducing risks through the elimination of near-miss incidents and by drawing on examples of disasters at other worksites and other companies. When new plants are constructed or when plants are expanded, we require safety reviews and audits to reduce accident risk to an acceptable level before starting test operations.

Efforts to prevent human error by workers

The 5Ss—*seiri* (sorting), *seiton* (setting-in-order), *seiso* (shining), *seiketsu* (standardizing) and *shitsuke* (sustaining the discipline)—and the 4 Safety Cycles (KY* before starting operation → Pointing and vocalizing during operation → Mutually directing attention during operation → Identifying *hiyari-hatto* [near miss] accidents after operation) are the concepts that form the basis of safety activities for the Nippon Soda Group. In addition, senior management at each business site takes the initiative in promoting safety awareness among employees so that safety activities are improved through the continuous application of the PDCA cycle.

* A combination of the first letters of two Japanese words, K for *kiken* (danger) and Y for *yochi* (prediction). The KY system is designed to identify latent risks associated with work and take preventive measures before they occur.

Third-party Occupational Health and Safety Survey

At Nippon Soda, we undergo occupational health and safety surveys by Sompo Risk Management Inc. (The Takaoka Plant was inspected between December 15-16, 2022.)

Health and Productivity Management

Nippon Soda considers the maintenance and improvement of health to be an important management issue. In March 2023, Nippon Soda was recognized again in the 2023 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500) for the sixth year in a row under the program jointly conducted by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. In cooperation with health insurance associations and labor unions, we promote efforts geared toward supporting the physical and mental health of employees.

2023
健康経営優良法人
Health and productivity
ホワイト500

Logistics Safety and Quality Assurance

At the Nippon Soda Group, to ensure the safe and stable delivery of products to our customers, we work to minimize distribution risks and prevent any logistics accidents in advance. Furthermore, by providing environments in which customers can use our high-quality products and services in a safe manner and with peace of mind, we are striving to improve customer satisfaction.

For more details, see ESG Data Book 2023 (p. 44–45)

Basic Policy

- Reduction of the risk of hazards, toxicity and accidents during transportation of products. Ensuring the safety of our customers, those involved in the distribution process and local residents, and protect the environment.
- Provision of information that helps customers use high-quality products safely, comfortably and in a stable manner.

Logistics Safety and Quality Assurance

Measures to ensure safe transportation of dangerous goods

- Logistics risk assessment

The Nippon Soda Group takes measures to reduce risks from various perspectives to prevent accidents involving workers and products caused by traffic accidents during forklift loading, unloading and trans-shipment of products, as well as during truck transportation.

- Promotion of Yellow Card[1] and Container Yellow Card (product labels)[2]

The Nippon Soda Group promotes the use of Yellow Cards and Container Yellow Cards mainly for products that are classified as hazardous materials. Product labels are revised to reflect the latest legal information, including revisions to relevant laws, in a timely manner. We appropriately implement wording that complies with GHS[3] requirements and appropriate pictograms and take other measures so that we are prepared in the event of a disaster to respond quickly to prevent damage from spreading.

Logistics safety in value chains

- Proposals for improvement of customers' facilities

In the event that there is a problem with the safety of the transport company or the customer's workers at the customer's product receiving facility, or if there is a risk of foreign matter entering the facility or spills, the Nippon Soda Group makes proposals for improvement and works to prevent accidents and disasters.

Efforts to ensure quality management

- Quality risk assessments for zero product complaints

At Nippon Soda we proactively conduct quality risk assessments to prevent recurrence of product complaints and to prevent complaints in advance. We identify quality-related risks at each manufacturing site, and for particularly high-risk matters (levels A and B), we engage in continuous activities to reduce the level of risk. Alongside education to prevent human error, we are working to reduce product complaints.

1. A Yellow Card is an emergency information card with information about procedures that drivers, fire and police personnel, and other concerned parties should take in the event of a spill, fire, explosion or other incidents during transportation. It also contains emergency contacts. The issuance and carrying of Yellow Cards is required by the Poisonous and Deleterious Substances Control Law and other laws.
2. A Container Yellow Card is a label that is affixed to containers with the United Nations number and guide number defined by the Emergency Response Guidebook.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS): A system for the international standardization of classification and labeling of chemicals, which was agreed upon by the United Nations Economic and Social Council. It is a system of international hazard classification standards and labeling methods (product labeling and SDS) for chemical hazards.

Chemical and Product Safety

The Nippon Soda Group takes into consideration the potential environmental, safety and health impacts related to the hazards and toxicity of chemical substances and products, complying with laws and ordinances and international standards, while also complying with regulations based on social demands, so as to earn the trust of customers and society and in turn ensure sustainable business activities.

For more details, see ESG Data Book 2023 (p. 46–48)

Basic Policy

- Compliance with domestic laws and regulations, international standards, and treaties etc., giving due consideration to the environmental, safety and health impacts related to the hazards and toxicity of chemical substances and products.
- Compliance with social restrictions that are not covered by law to maintain and ensure trust from customers and the general public.
- Specific measures to ensure the safety management of chemical substances, including activities and periodic educational programs regarding chemical and product safety.

Chemical and Product Safety

Strengthening management of chemical substances using a chemical substance control system, and response to laws and regulations

We are strengthening our management of chemical substances through the introduction of a chemical substance management system which we use to create SDSs* and Yellow Cards. We prepare and revise SDSs and Yellow Cards to comply with revisions to laws in Japan and overseas. We are also shifting to the Globally Harmonized System of Classification and Labelling of Chemicals for SDSs and product labels for Europe, the United States, China, Taiwan, South Korea, Southeast Asia, Turkey, and other countries/regions as well as Japan. In FY 2022, to transfer Japanese SDSs to the revised Japanese Industrial Standard (JIS) version, we improved our chemical substance management system and held briefings for all relevant worksites. We completed the transfer of Japanese SDSs to the revised JIS version by the grace period limit of May 24, 2022.

* SDSs (Safety Data Sheets): Documents describing information on chemical substances, product names, suppliers, hazards, precautionary safety measures, emergency response, etc.

Engagement with Local Communities and Society

To coexist with our local communities as a corporate citizen and ensure our sustainable development, at the Nippon Soda Group we proactively participate in community activities, exchange opinions with community stakeholders, and engage in an array of social contribution activities. In addition, through dialogue with local communities, we aim to further our understanding of their needs and values regarding the environment, safety, and health, and put our findings to good use to ensure better business activities.

For more details, see ESG Data Book 2023 (p. 61–66)

Basic Policy

- Based on the concept of contributing to the sustainable development of society through business activities, promote CSR activities from the viewpoints of contributing to resolving global environmental issues, a harmonious relationship with local communities, and contributing to the development of local communities.
- Develop good relationships with local residents through various activities that meet the needs of local communities and that are designed and implemented by each business site and Group company.

Harmonious Relationship with Local Communities

Contribution to local employment

Nippon Soda contributes to creating local employment opportunities through its worksites throughout Japan.

Furthermore, to ensure healthy work-life balance and enhance job satisfaction, we communicate with labor unions to formulate working conditions in line with current trends. As a result, not only does our standard minimum wage continue to be above the legal minimum wage in all areas we conduct business, we are also contributing to raising income levels in the regions in which we operate.

Participation in local cleaning activities

In order to fulfill our role and responsibility as a corporate citizen, we regularly carry out local cleaning activities around our worksites. We also actively participate in local cleaning activities in tandem with local communities, such as through eco-walks and cleanup campaigns.

Social Dialogue with Local Communities

Nippon Soda holds local gatherings and regularly conducts tours of plants and research centers for residents in areas where worksites are located in order to provide information on CSR activities and exchange views and comments.

Major Social Activities of Nippon Soda

Nippon Soda conducts social activities from the perspective of living in harmony with local communities and for the development of local communities. Each of our worksites is engaged in a variety of activities that match the needs of the community and strive to build good relationships with local residents.

In March 2023, with a desire to contribute to sustainable agriculture and regional development alongside our communities, we donated ¥30 million (using the corporate hometown tax system) to the citrus fruit industry and projects tackling issues in the industry in Uwajima City in Ehime Prefecture, one of Japan's leading citrus-producing regions.

Stakeholder Engagement

We are engaged in stakeholder engagement to deepen our understanding of society's needs and values through dialogue with our stakeholders, and to promote business activities that meet the expectations of local communities.

DBJ Environmentally Rated Loan Program 2019 Highest Rank

DBJ 環境格付 2019

Sompo Sustainability Index Selected as index constituent for three consecutive years

2023 Sompo Sustainability Index

FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index Selected as index constituent

FTSE Blossom Japan Index

FTSE Blossom Japan Sector Relative Index

Shinfuji Kaseiyaku Co., Ltd. acquired Platinum rating in Eco Vadis sustainability survey

PLATINUM Top 1% 2022 ecovadis Sustainability Rating

Corporate Governance

Corporate Governance Highlights

Directors	Directors who are members of the Audit and Supervisory Committee	Outside directors	Female directors
7 (Average duration of tenure: 1.57 years)	3	5 (50%)	2 (20%)

Members of the Nomination and Remuneration Advisory Committee	Number of meetings of the Board of Directors	Number of meetings of the Audit and Supervisory Committee	Number of meetings of the Management Council	Number of investors with whom we held meetings
4 (President and three outside directors)	22	15	35	331

Basic Concept

Nippon Soda places primary importance on sound and transparent business management in compliance with laws and ordinances. Our management philosophy is to contribute to social development by providing superior products through chemistry, to meet expectations from stakeholders, including customers, shareholders, investors, business partners, employees and local communities, and to promote environmentally conscious business practices and activities.

Under this philosophy, we are committed to growing into a technology-oriented group that develops high-added-value products by making best use of its proprietary technologies and expands its business with a global point of view centered on chemistry.

We recognize that the enhancement of corporate governance is an important management issue for realizing our management philosophy and responding quickly and appropriately to rapid changes in the business environment.

▸ Corporate Governance Report (Japanese only) **https://www.nippon-soda.co.jp/sustainability/pdf/governance_report.pdf**

A History of Strengthening Governance

Aiming to Strengthen Governance

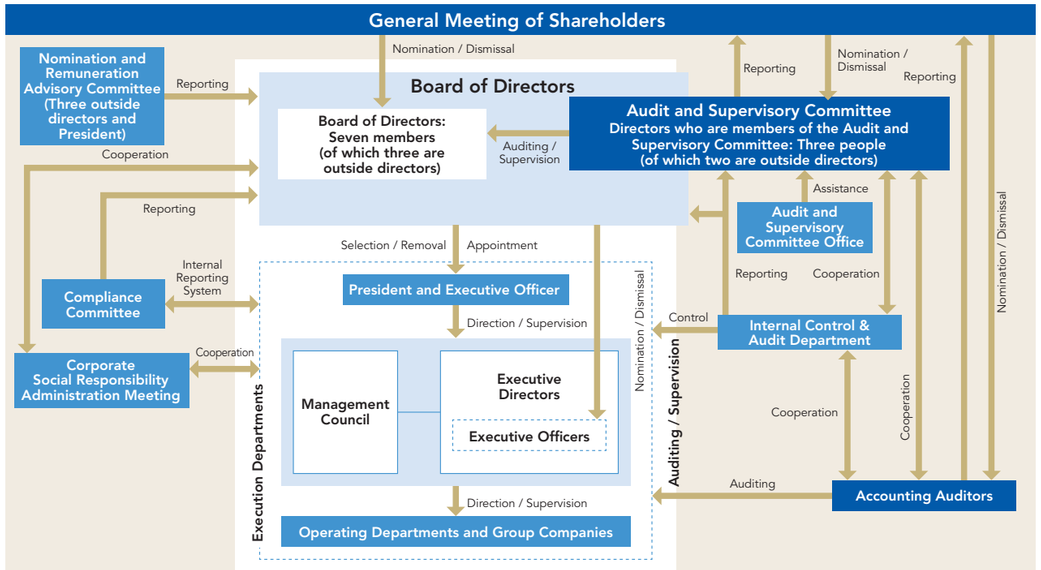
- Strengthen management supervision and improve operational agility
- Increase the diversity of the Board of Directors
- Enhance management transparency and fairness
- Strictly comply with laws and ordinances and corporate ethics

FY 2013	Established CSR Administration Meeting Abolished the executive retirement benefit system
FY 2014	Introduced an executive officer system (number of directors reduced from 14 to 7) Nominated 1 outside director
FY 2016	Nominated 2 outside directors (increased by 1 person; including 1 woman) Started effectiveness assessment of the Board of Directors
FY 2017	Reviewed the executive remuneration system (introduced a performance-based stock remuneration plan, board benefit trust (BBT))
FY 2018	Established Remuneration Advisory Committee
FY 2019	Established Nomination and Remuneration Advisory Committee Utilized external organization for effectiveness assessment of the Board of Directors
FY 2021	Transitioned to a company with an audit and supervisory committee
FY 2023	Reviewed the executive remuneration system (introduced a transfer restricted stock remuneration system (RS))

Corporate Governance System

The Nippon Soda Group is fully aware of its fiduciary responsibility in accordance with Japan's Corporate Governance Code and is committed to enhancing its corporate governance structure.

Corporate Governance Structure



General Meeting of Shareholders

The Nippon Soda Group holds an ordinary general meeting of shareholders in June every year, viewing it as an important opportunity to engage in direct dialogue with our shareholders. We deliver the notice of convocation of the General Meeting of Shareholders at an early date so that our shareholders may acquire a good understanding of the issues that will be reported and the matters for resolution at the shareholders' meeting.

We also provide pre-delivery disclosure of information on Nippon Soda's website and at the Tokyo Stock Exchange website, before the notice of convocation of the General Meeting of Shareholders is sent out. Voting rights may be exercised not only in writing but also via the Internet.

Board of Directors

The Board of Directors is responsible for making important management decisions (based on clear standards, such as amounts above a certain level) as stipulated by laws and ordinances, the Articles of Incorporation, and the Board of Directors Rules, as well as supervising the execution of each director's duties. The tenure of directors (excluding directors who are members of the Audit and Supervisory Committee) is set at one year to ensure that they are able to respond quickly to changes in the environment and to clarify their management and operational responsibilities.

Audit and Supervisory Committee

Two of the three directors who are members of the Audit and Supervisory Committee are outside directors. Directors who are also members of the Audit and Supervisory Committee not only attend Management Council meetings, but also inspect important documents (approval requests) and receive explanations of important matters directly from the relevant directors, executive officers, department, or subsidiary, in an effort to gain an accurate understanding of corporate information throughout the Group while also monitoring and verifying whether or not related departments are handling and responding to the situation and whether or not internal controls are being legally and appropriately executed. In addition to this, they work closely with the accounting auditors to ensure the reliability of our financial statements, in particular, by receiving regular reports from them and attending some of their on-site audits.

Nomination and Remuneration Advisory Committee

In order to enhance the fairness and objectivity of executive personnel (including successor development plans) and executive remuneration, we have established an independent and effective Nomination and Remuneration Advisory Committee consisting of three outside directors and the President. The Committee advises and makes recommendations to the Board of Directors on executive personnel and remuneration.

Management Council

In accordance with the Management Committee Operation Rules, Nippon Soda's Management Council, consisting of the President, directors who concurrently hold the position of executive officer, and others requested to attend by the President, generally meets once a week (with auditors). It discusses important issues involving business execution other than issues that must be discussed by the Board of Directors, in order to make quick decisions on issues related to business execution.

Compliance Committee

Nippon Soda operates a Compliance Committee, which reports directly to the President, to ensure corporate activities in compliance with laws, regulations and corporate ethics throughout the Group. The Compliance Committee comprises executive officers. At each department, worksite and Group company, a staff member in charge of compliance is appointed.

Corporate Social Responsibility Administration Meeting

Chaired by the President and Executive Officer, the Corporate Social Responsibility Administration Meeting serves as the chief companywide decision-making body to promote CSR activities, including Responsible Care (RC). Held twice a year, the meeting is attended by all Nippon Soda directors, executive officers, plant managers, and officers from our main domestic Group companies. Through these meetings, management set CSR targets, assess results, and revise the targets as necessary to ensure continuous improvement in line with the PDCA cycle.

Director Nomination Policy

Decisions on the nomination of director candidates and the selection and dismissal of senior management are made by resolution of the Board of Directors based on the advice and recommendations of the Nomination and Remuneration Advisory Committee. Also, candidates for the position of directors who are members of the Audit and Supervisory Committee, are determined by the Board of Directors after obtaining approval from the Audit and Supervisory Committee.

To ensure that they are suitable for their responsibilities, candidates for directors and senior management are selected in accordance with the following criteria:

(1) Extensive business experience
(2) Excellent managerial sense
(3) Leadership, drive and planning skills
(4) Proper character and insight
(5) Healthy in body and mind

Candidates for outside directors are nominated in accordance with the requirements of the Companies Act and the Tokyo Stock Exchange, and include those with expertise and extensive experience who can be expected to provide constructive and candid views and comments on the Company's management.

In the event of any impropriety or significant violation of relevant laws, regulations or the Articles of Incorporation in the performance of duties by senior management, or any other reason that makes it difficult for them to properly perform their duties, they shall be removed from their position.

Outside Directors

Nippon Soda has four highly independent outside directors, (including two directors who are also members of the Audit and Supervisory Committee) in an effort to enhance the ability of the Board of Directors to contribute to the Company's sustainable growth and to increase medium- and long-term corporate value. Regarding independent outside directors, in accordance with the requirements of the Companies Act and the Tokyo Stock Exchange regarding independence, the Company nominates individuals who are unlikely to have conflicts of interest with general shareholders and who are able to ensure objectivity and rationality in the Company's decision-making and contribute to increasing corporate value. Specifically, none of the following must apply to the person:

(1) A person who does business with the Company or its subsidiaries as a principal customer or an executive thereof
(2) A primary business partner of the Company or its subsidiaries or an executor of such business
(3) A consultant, certified public accountant, lawyer or other professional who has received a large amount of money or other assets from the Company or its subsidiaries in addition to directors' remuneration
(4) A person who has fallen into any of the above categories (1) to (3) in the past year
(5) The spouse or a relative within the second degree of kinship of the following persons:
1. A person who falls under (1) to (4) on the left
2. A person who is, or has been in the past year, an executive of the Company or its subsidiaries
3. A person who is currently, or has been in the past year, a non-executive director of the Company or a subsidiary of the Company

Skills Matrix

At the Nippon Soda Group, the mission we have set in our Long-term Vision (FY 2021–FY 2030) is to "Create new value through the power of chemistry and increase corporate value by contributing to society." To achieve this mission, and to ensure appropriate and quick decision-making on important management matters such as basic strategies, capital policies, and sustainability management, as well as supervision of directors' execution of duties, we have identified the skills required of the Board of Directors as below.

These required skills will be revised as necessary in line with changes in external environments and internal conditions.

Directors				Specialist expertise and experience						
Name	Gender	Position	Director tenure	Corporate management	Finance / accounting	Business strategy / portfolio	R&D / production technology	Internationality	ESG / sustainability	Legal affairs / risk management
Eiji Aga	Male	Director, President (Representative Director)	3 years	●		●		●		
Atsuo Watanabe	Male	Director, Executive Managing Officer	1 year				●		●	
Osamu Sasabe	Male	Director, Executive Managing Officer	2 years		●	●				
Osamu Shimizu	Male	Director, Executive Officer	1 year		●			●	●	
Mitsuaki Tsuchiya Outside Independent	Male	Director	3 years	●	●					
Yuko Watase Outside Independent	Female	Director	1 year		●	●		●		
Takayoshi Meiga Outside Independent	Male	Director	New appointment	●			●		●	
Nobuyuki Hori	Male	Director, Audit and Supervisory Committee member (Full time)	1 year		●					●
Yoko Waki Outside Independent	Female	Director, Audit and Supervisory Committee member	3 years							●
Hayato Yoshida Outside Independent	Male	Director, Audit and Supervisory Committee member	1 year		●					●

Executive Remuneration

Policy on decisions

Nippon Soda's executive remuneration is determined based on a balance of common practices, company performance and employee salaries. A resolution was passed on June 26, 2020, at the 151st Ordinary General Meeting of Shareholders to set the total amount of remuneration for directors (excluding directors who are members of the Audit and Supervisory Committee) and directors who are members of the Audit and Supervisory Committee at no more than ¥350 million and no more than ¥100 million per year, respectively.

Director remuneration shall be determined within the limits of the total amount of remuneration approved by the General Meeting of Shareholders, and shall be discussed and decided by the Board of Directors based on the advice, recommendations and findings of the Nomination and Remuneration Advisory Committee. The Board of Directors entrusts decisions regarding directors' basic remuneration, as well as directors' (excluding outside directors) performance-linked remuneration, evaluation remuneration, and stock-based remuneration, to the Representative Director and President. We believe that the representative directors are most suited to evaluating the departments that each director is responsible for while considering overall business performance and other factors. The appropriateness of decisions made regarding remuneration are confirmed in advance by the Nomination and Remuneration Advisory Committee.

Executive remuneration for FY 2023 was discussed by the Nomination and Remuneration Advisory Committee on June 20, 2022. Based on their findings, the policy for determining individual director remuneration (excluding outside directors, part-time directors, and directors who are members of the Audit and Supervisory Committee) was determined at the Board of Directors' Meeting on June 29, 2022. Separate to this, at the 153rd Ordinary General Meeting of Shareholders held on June 29, 2022, discussions were held and a resolution passed to pay directors a monetary remuneration claim equivalent to the amount to be paid for transfer restricted stock. Remuneration for directors who are members of the Audit and Supervisory Committee was determined following discussions at an Audit and Supervisory Committee meeting, within the total amount of remuneration approved by the General Meeting of Shareholders.

Following confirmation that methods for determining remuneration were in line with the decision policy, that the resulting remuneration conformed to the decision policy discussed at the Board of Directors' meeting, and that the findings of the Audit and Supervisory Committee were respected, we have determined that individual director remuneration for FY 2023 is in line with the decision policy.

As stipulated in the Articles of Incorporation, the number of directors (excluding those who are members of the Audit and Supervisory Committee) is limited to ten and the number of directors who are members of the Audit and Supervisory Committee is limited to five.

Total Amount of Remuneration

Classification	Total amount of remuneration (Millions of yen)	Total amount of remuneration by type (Millions of yen)			Number of eligible persons
		Basic remuneration	Performance-linked remuneration	Transfer restricted stock remuneration	
Directors (excl. Audit and Supervisory Committee members) [Outside directors]	257 [21]	100 [21]	104 [–]	51 [–]	11 [3]
Directors (Audit and Supervisory Committee members) [Outside directors]	49 [21]	49 [21]	– [–]	– [–]	5 [3]
Total [Outside directors]	306 [43]	150 [43]	104 [–]	51 [–]	16 [6]

Note 1: The above number of persons and amount of remuneration includes that of three directors (one outside director; excl. Audit and Supervisory Committee members) and two Audit and Supervisory Committee members (one outside director) who retired on June 29, 2022, due to the expiration of their term of office. Moreover, basic remuneration includes reversal of provisions from the end of the board benefit trust (BBT) in line with the introduction of the transfer restricted stock remuneration system.
Note 2: The above performance-linked remuneration has been calculated using the following formula and indices that show results and achievements from this fiscal year.
Prior-fiscal year performance-linked remuneration + Adjustment of performance-linked remuneration for the current fiscal year[1] + Performance-linked amount for the current fiscal year[2]
1. Adjustment of performance-linked remuneration for the current fiscal year: Calculated based on three indices: (1) Increase/decrease in consolidated net profit for the current fiscal year; (2) Increase/decrease in consolidated ROE; and (3) Increase/decrease in non-consolidated operating margin
2. Performance-linked amount for the current fiscal year: Calculated based on the following formula:
Standard points based on position × Index coefficient for the current fiscal year (%)[3] × Prior-fiscal year average share price
3. Index coefficient for the current fiscal year: Determined within a range of 0% to 150% using a matrix table with the two indices below.
(1) ROE for the current fiscal year; and (2) Increase/decrease in consolidated operating profit (the amount of increase/decrease in the current fiscal year's actual results compared with the average of the previous three years)
These indices enable highly accurate measurement of the level to which we have improved our corporate value, something we have committed to in our Long-term Vision. As such, we have determined that they are appropriate indices to measure the achievements and level of contribution of company executives, and have selected them as indices for performance-linked remuneration.
The performance indicators used in the calculation of performance-linked remuneration, etc., for this fiscal year are based on the following results:
- Increase/decrease in consolidated net profit for the current fiscal year: ¥5,066 million (compared with plan)
- Increase/decrease in consolidated ROE: 3.3 percentage points (compared with plan)
- Increase/decrease in non-consolidated operating margin: 122.6% (compared with plan), 117.2% (compared with plan)
- ROE: 8.4%
- Increase/decrease in consolidated operating profit: ¥3,256 million (the amount of increase/decrease in the current fiscal year's actual results compared with the average of the previous three years)
- Stock price average for the previous fiscal year: ¥3,400

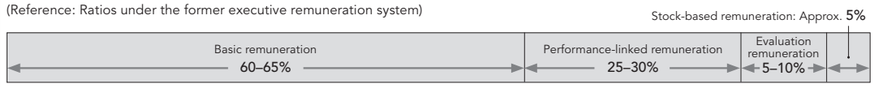
Note 3: Five directors (excl. outside directors, part-time directors, and directors who are members of the Audit and Supervisory Committee) are eligible for the transfer restricted stock remuneration system.
Note 4: Of total non-monetary remuneration for directors (excl. members of the Audit and Supervisory Committee and outside directors), transfer restricted stock remuneration accounts for ¥51 million.

Revision of remuneration system

At the Board of Directors' Meeting held on April 22, 2022, we revised our executive remuneration system to further promote the sharing of value with our shareholders and boost incentive among executives to improve our corporate value, introducing a transfer restricted stock remuneration system. Furthermore, in line with the approval of this system, we abolished the Board Benefit Trust stock-based remuneration system as of the conclusion of the 153rd Ordinary General Meeting of Shareholders held on June 29, 2022. As a result, all of the points equivalent to the undistributed shares awarded based on the predetermined remuneration amount, in line with the Board Benefit Trust system, have been waived.

Individual director remuneration consists of (1) basic remuneration, (2) performance-linked remuneration, (3) evaluation remuneration, and (4) stock-based remuneration, the ratios of which are shown in the following table (Overview of Decision Policy on Individual Remuneration: (e) Decision policy on ratio of remuneration by type). Note that directors in charge of supervisory functions, such as outside directors, part-time directors, and directors who are members of the Audit and Supervisory Committee are paid only (1) basic remuneration considering their roles.

Overview of Decision Policy on Individual Remuneration (Remuneration system)

(a) Decision policy on basic remuneration	The amount is determined based on the role and position of the director.
(b) Decision policy on performance-linked remuneration	Calculated by the following formula, using an index that shows the results and performance of the current fiscal year. Policy on decisions (formula) Prior-fiscal year performance-linked remuneration + Adjustment of performance-linked remuneration for the current fiscal year[1] + Performance-linked amount for the current fiscal year[2] 1. Adjustment of performance-linked remuneration for the current fiscal year: Calculated based on three indices: (1) Increase/decrease in consolidated net profit for the current fiscal year; (2) Increase/decrease in consolidated ROE; and (3) Increase/decrease in non-consolidated operating margin 2. Performance-linked amount for the current fiscal year: Calculated based on the following formula. Standard points based on position × Index coefficient for the current fiscal year (%)[3] × Prior-fiscal year average share price 3. Index coefficient for the current fiscal year: Determined within a range of 0% to 150% using a matrix table with the two indices below. (1) ROE for the current fiscal year; and (2) Increase/decrease in consolidated operating profit (the amount of increase/decrease in the current fiscal year's actual results compared with the average of the previous three years) These indices enable highly accurate measurement of the level to which we have improved our corporate value, something we have committed to in our Long-term Vision. As such, we have determined that they are appropriate indices to measure the achievements and level of contribution of company executives, and have selected them as indices for performance-linked remuneration.
(c) Decision policy on evaluation remuneration	Calculated based on the level of achievement of the targets set by each director at the beginning of the term.
(d) Decision policy on stock-based remuneration	In addition to further sharing value with our shareholders, we have introduced a transfer restricted stock remuneration system (RS) as an incentive linked to the medium- to long-term improvement of our corporate value. Through this system, a certain quantity of transfer restricted stock is granted to each position depending on their roles and responsibilities.
(e) Decision policy on ratio of remuneration by type	Approximate ratios Basic remuneration: Performance-linked remuneration: Evaluation remuneration: Stock-based remuneration 40%:40%:5%:15%  (Reference: Ratios under the former executive remuneration system) 
(f) Decision policy on period and conditions of remuneration	Fixed monthly remuneration includes basic remuneration, performance-linked remuneration, and evaluation remuneration. For transfer restricted stock remuneration, which is non-monetary remuneration, transfer restricted stock is granted every year based on an allotment agreement. Transfer restrictions are lifted when an executive retires or resigns from their final position in the Company.
(g) Decisions on individual remuneration	Based on decisions by the Board of Directors regarding basic remuneration, performance-linked remuneration, evaluation remuneration, and stock-based remuneration, decision-making authority on individual remuneration belongs to the President. To ensure that this authority is appropriately exercised, prior to making a decision on the relevant amount, the President briefs and holds discussions with the Nomination and Remuneration Advisory Committee and seeks their approval.

Effectiveness Assessment of Board of Directors

At Nippon Soda, to improve the Board of Directors' decision-making on appropriate execution of duties and to strengthen their supervisory functions, since FY 2016, all directors have been asked to complete self-assessments in the form of questionnaires. We also regularly commission an external organization to conduct interviews and analyze and assess the results. Most recently, these interviews were conducted in FY 2019 and FY 2022. In FY 2023, questionnaires comprising the topics below were given to all directors, including directors who are Audit and Supervisory Committee members. Based on these results, the Board of Directors examined and discussed its current level of effectiveness.

As a result, overall, it was confirmed that the Board of Directors was functioning effectively. Regarding Board of Directors' composition, it was found that the Board of Directors possesses the necessary skills and diversity to realize the Company's management strategies, and that an appropriate environment is in place for healthy discussions and other board proceedings. Among its other strengths, the Board of Directors was also found to promote the open provision and sharing of information to outside directors in order to enable their active participation in discussions. However, issues were found regarding the further reinforcement of supervisory functions for matters related to nomination and remuneration. In line with these results, we added one outside director to the Nomination and Remuneration Advisory Committee, bringing the total number of outside directors to three. As it now comprises three outside directors and the President, we have reinforced the supervisory functions of the Committee.

We will continue to find ways to improve the operation of the Board of Directors and further enhance its effectiveness.

Survey topics
(1) Board of Directors' functions (enhancement of discussions on medium- to long-term management strategies and fulfillment of supervisory functions for matters related to nomination and remuneration)
(2) Board of Directors' composition and size (number of directors and independent outside director ratio, and level of skill and diversity)
(3) Operation of the Board of Directors (number of meetings, frequency, time; provision of materials; meeting proceedings, etc.)
(4) Supervision of auditing functions (Audit and Supervisory Committee members' and outside directors' collaboration with auditing bodies, etc.)
(5) Outside directors' performance of functions (creation of systems to help outside directors perform their functions, provision of information to outside directors, etc.)
(6) Relationship with shareholders and investors (systems for dialogue with shareholders and investors, shareholder and investor feedback on Board of Directors, etc.)

Compliance

For more details, see ESG Data Book 2023 (p. 74–76)

Basic Policy

The Nippon Soda Group ensures corporate activities are undertaken in compliance with laws and ordinances and corporate ethics by making all employees aware of the Nippon Soda Group Code of Conduct. Our efforts to ensure business management that emphasizes regulatory compliance include the establishment of the Compliance Committee and proper implementation of the internal reporting system. Through these efforts, we enhance the internal control system and continue to be a company trusted by society.

The Nippon Soda Group Code of Conduct

1. Compliance with laws/ ordinances and corporate ethics	(1) Fair actions (2) Compliance with corporate ethics (3) Prompt corrective action and strict disciplinary action in response to the violation of a law/ordinance
2. Relationship with society	(1) Contribution to society (2) Compliance with various kinds of business laws (3) Regulation of donations and political fund contribution (4) Severance of relations with anti-social forces (5) Environmental conservation/ protection (6) Compliance with laws/ordinances related to security trade control and export/import
3. Relationship with customers, business partners and competitors	(1) Product safety (2) Compliance with the anti-trust law and competition law (3) Appropriate transactions with suppliers and complying with the subcontracting law (4) Prevention of unfair competition (5) Business entertainment and gifts (6) Prohibition of presenting bribery to foreign public officials (7) Appropriate publicity/advertisement
4. Relationship with shareholders and investors	(1) Disclosure of managerial information (2) Prohibition of insider trading
5. Relationship with individuals	(1) Respect for human rights and prohibition of discrimination (2) Harassment (3) Protection of privacy (4) Safety and health in workplace (5) Compliance with labor relations laws
6. Relationship with the Company and corporate assets	(1) Compliance with work regulations (2) Appropriate accounting (3) Conflict of interest (4) Prohibition of political and religious activities (5) Management of trade secrets (6) Appropriate use of corporate assets (7) Appropriate use of information systems (8) Protection of intellectual property rights
7. Supplementary provisions	(1) The scope of application of this Code of Conduct (2) Revision and abolition of this Code of Conduct (3) Violation of this code of conduct / consultation hotline (4) Penalty

Compliance Promotion System

Nippon Soda has a Compliance Committee, which is chaired by the director in charge of compliance with legal departments serving as the secretariat, to ensure corporate activities in compliance with laws and ordinances and corporate ethics throughout the Group. Furthermore, to ensure thorough implementation of the Nippon Soda Group Code of Conduct, we have appointed a staff member in charge of compliance at each department, worksite and subsidiary.

The Nippon Soda Group has established a consultation desk, whereby an employee of the Group who has committed an infraction or becomes aware of an infraction by another employee, can consult directly with the Compliance Committee Secretariat, an outside attorney or an Audit and Supervisory Committee member.

Compliance Promotion and Education

We have formulated the Nippon Soda Group Code of Conduct, which specifies matters to be observed by the Nippon Soda Group in order to carry out sound corporate activities. In addition to introducing and enhancing awareness of this Code of Conduct throughout the Company, as well as at our subsidiaries both in Japan and overseas, we provide ongoing training to ensure thorough compliance with laws and ordinances. We conduct legal education and training related to our operations once a year or more, and in FY 2023, we conducted a total of 12 major compliance training sessions for the Company and its subsidiaries. Elsewhere, we also have e-learning programs aimed at enhancing awareness of the Code of Conduct among all Company and subsidiary executives and employees, and the current completion rate stands at 98%. Moreover, for staff members in charge of compliance at the Company and its subsidiaries, we also host seminars that look at how to respond to cases through the internal reporting system. In addition, we conduct an annual compliance survey of all employees to determine their understanding of the Code of Conduct.

Internal Controls

For more details, see ESG Data Book 2023 (p. 77–78)

Status of Establishment of Internal Audit System

(1) In accordance with the basic policy regarding system development necessary to ensure proper business operation, Nippon Soda establishes and implements systems that ensure compliance and efficient and sound company management, and provides information on relevant rules throughout the Company.
(2) We promote corporate social responsibility (CSR) practices in order to maintain the trust of society needed to continue our business activities.

Regulations on the Risk Management of Losses and Other Systems

(1) We conduct corporate activities in compliance with laws and ordinances and corporate ethics by ensuring all employees are fully informed of the Nippon Soda Group Code of Conduct.
(2) We have established a Corporate Social Responsibility Administration Meeting chaired by the President and executive officer to promote business activities taking into account environmental protection, occupational safety and health, process safety and disaster prevention/business continuity plan (BCP), logistics safety, and chemical and product safety. In addition, we implement risk management in accordance with Company regulations such as the Environmental Management Regulations and Security Management Regulations to prevent accidents from occurring.
(3) Should a serious accident occur, an accident response headquarters is established in accordance with corporate rules, including the Security Management Regulations to address the accident in a cross-sectional and systematic way.
(4) If a natural disaster, such as a large earthquake, or any other crisis that could have disastrous consequences occurs, we shall respond appropriately according to the BCP.
(5) Other risks associated with business execution are appropriately addressed by responsible departments in accordance with response manuals and other documents.
(6) The Internal Control & Audit Department has been established independently from business departments to assess the appropriateness and efficiency of business activities and the reliability of financial reports and to promote the appropriate functioning of the internal control system in business processes.
The Internal Control & Audit Department reports to the Board of Directors on the results of audits and the operational status of internal controls.

Internal Control Audits

The Company's Internal Control & Audit Department, which is independent of the operating divisions, works closely with the directors who are also members of the Audit and Supervisory Committee, to assess the appropriateness and efficiency of business activities and the reliability of financial reports. The directors who are also members of the Audit and Supervisory Committee keep abreast of developments throughout the Nippon Soda Group and monitor and verify the proper execution of internal controls. Furthermore, to ensure the reliability of financial information and other information, they work in close cooperation with the accounting auditors, who report regularly and attend some of the audits.

Information Security Management

Appropriate management and protection of our information assets is one of the priority issues in managing our business. Nippon Soda promotes information security management under the supervision of the executive in charge of the Information Technology Department. In addition to the development of internal regulations such as the Information Security Policy, we are working to raise awareness of the importance of information assets by advocating the appropriate use of information systems in the Nippon Soda Group Code of Conduct. We are taking measures to strengthen the information security management system of the entire Nippon Soda Group, including training at Group companies on how to deal with suspicious emails to prevent viruses from infecting our computers.

Business and Other Risks

1. Market risks
(1) Some of the Group's businesses include products and services that are subject to economic fluctuations. Therefore, if market conditions fluctuate significantly due to changes in the economic environment, the Group's business performance could be significantly affected.
(2) In Agri Business, earnings tend to increase in the fourth quarter due to the seasonal nature of demand. In addition, the Group's business performance may be significantly affected by weather fluctuations, as operations in Agri Business tend to be susceptible to weather conditions.
(3) Predominantly through Chemical Materials and Agri Business, the Group conducts business on a global scale. Moreover, around 60% of our sales in Chemical Materials and Agri Businesses are overseas. As such, unforeseen changes in local laws and regulations in each country or region; large-scale epidemics; geopolitical risks such as wars, riots, or terror, or other unexpected factors; trade wars caused by national or regional conflict; and/or other factors could have a significant impact on our business performance. Tasked with collecting information on risks and analyzing business trends in each country and region we conduct business, we have therefore established local subsidiaries to act as our hubs in those areas.

2. Exchange rate fluctuation risks
(1) The Group operates on a global basis and foreign currency fluctuations affect net sales and materials procurement costs in foreign currencies. For this reason, we seek to mitigate the impact on business performance through forward foreign exchange contracts.
(2) Since the yen-translated figures of overseas consolidated subsidiaries and equity-method affiliates in the consolidated financial statements are influenced by foreign exchange rates, dramatic fluctuations in foreign exchange rates may have a significant impact on the Group's business performance.

3. Raw materials procurement risks
If the Group is unable to secure the materials used in its products, or if the price of materials fluctuates drastically, the Group's business performance could be significantly affected. For this reason, we strive to ensure stable procurement of materials and reduce the impact of rising material prices on our business performance by implementing measures such as lowering the cost of our products and revising sales prices.

4. Legal and regulatory risks
While the Group conducts its business activities in compliance with the laws and ordinances in Japan and abroad, growing global environmental awareness tends to tighten regulations on chemical products. Therefore, if environmental regulations become more stringent than expected and require substantial additional investments in the future, our business performance could be significantly affected.

5. Research and development risks
The Group invests a large amount of management resources in the development of new products. However, in research and development, particularly in Agri Business, the development and period for validating the efficacy and safety of a product may take a long time, and the research and development costs and commission fees for studies involved in up-front investment are significant, so if the research theme is not put to practical use, the Group's business performance may be significantly affected.

6. Product liability risks
As a manufacturer of chemical products, the Group is working on Responsible Care (RC) activities (voluntary risk reduction activities) for quality management, and in particular, we are striving to improve management based on ISO 9001. In addition, we conduct product liability (PL) risk assessments prior to the sale of new products and make quality improvements in accordance with ISO 9001 to ensure that PL problems are avoided. However, there is no guarantee that all products will be defect-free and free of PL issues. For this reason, the Group carries product liability insurance to protect itself in the event of an accident. However, if an unanticipated serious quality defect occurs, the Group's business performance could be significantly affected.

7. Accident and disaster risks
As a manufacturer of chemical products, the Group is acutely aware of the risks associated with manufacturing. We engage in Responsible Care activities with respect to quality, environmental protection, occupational safety & health, process safety and disaster prevention, logistics safety, chemical and product safety, etc., and strive to prevent accidents at our production facilities and chemical product storage facilities. Nevertheless, if an unforeseen accident or a large-scale natural disaster were to cause damage to personnel or property at our manufacturing facilities, or if damage were to occur in the areas in the vicinity of our plants, there may be a significant impact on our business performance due to a loss of trust from society in the Group, the cost of measures to deal with the accident and disaster, or lost opportunities due to the suspension of production activities.

8. Application of impairment accounting risks
If the value of the Group's business assets substantially declines, or if the Group does not expect to recover its investments due to a decline in profitability or other factors, recording an impairment loss could have a material impact on the Group's business results.

9. Retirement benefit obligations risks
The Group's employee retirement benefit costs and obligations are calculated based on actuarial assumptions, such as the rate of return on plan assets and the discount rate, so if the actual results differ substantially from the assumptions due to abrupt changes in the market environment or other factors, the Group's business performance could be significantly affected.

10. Intellectual property infringement risks
The Group manages its intellectual property rights strictly. However, it may not be able to fully protect its intellectual property rights in certain countries and may not be able to completely prevent infringement by third parties, which could have a significant impact on the Group's business performance.

11. Information security risks
The Group holds a wide range of confidential and other information related to its businesses. Although we have a thorough information management system in place, in the event that an unforeseen circumstance causes this information to be leaked outside the Company, the resulting stagnation in business activity and loss of trust could have a significant impact on the Group's business performance. We have thus formulated a set of internal rules regarding information management, and educate employees on these rules to boost their management awareness and promote understanding of information handling rules. We have also concluded non-disclosure agreements with stakeholders with whom we share the confidential information we handle, and are striving to reinforce our information management system in other ways.

Messages from Outside Directors

Contributing to the Group's Sound Development through an Accurate Understanding of Its Frontlines

Mitsuaki Tsuchiya
Outside Director

In its previous medium-term business plan, Brilliance through Chemistry Stage Ⅰ, the Group sought to make progress with its business portfolio reforms and expand its high-value-added businesses. As a result, it was able to significantly exceed all numerical targets within the plan. The Group has positioned the next plan, Brilliance through Chemistry Stage Ⅱ, as a core stage in its transition to a highly efficient business structure. In the plan's formulation, the Board of Directors met multiple times to engage in careful, in-depth discussions on the level to aim for in terms of numerical targets, as well as on the specific measures required to achieve them. Elsewhere, this fiscal year the Group introduced one additional outside director with high expertise in production technology. An outside director was also added to the Nomination and Remuneration Advisory Committee. With three of the four committee members as outside directors, the Group has further reinforced its governance structure.

I believe that one of our roles as outside directors is to contribute to the sound development of the Nippon Soda Group using different experiences and perspectives to management members responsible for business execution. I am actively participating in management events, and striving to gain an accurate understanding of the Group's frontlines through visits to its plants, research centers, and Group companies.

Supporting Employees' Efforts to Take on New Challenges Using Our Diverse Perspectives

It is now my second year as an outside director. In my first year, I discovered firsthand the nature of the Nippon Soda Group. Despite boasting a more than century-long history, the Group has a bright and open corporate culture, and information is shared both inside and outside the Company with little distinction. In addition, management meetings host appropriate discussions and there is thorough respect for different opinions.

In the previous medium-term business plan, Brilliance through Chemistry Stage Ⅰ, the Group was able to far exceed expectations in hitting its targets. This success can be attributed to a strong commitment among management to liquidate its unprofitable businesses, and the hard work of employees who laid the groundwork. I understand that the next medium-term business plan, Brilliance through Chemistry Stage Ⅱ, is a period in which the Group will strive for further progress. Our role as outside directors is to provide different perspectives to those involved in business execution, objective viewpoints that are not restricted by internal notions, and experience that the Company may have previously lacked. With increasing diversity in our backgrounds, I believe we can benefit the Company using our wide-ranging perspectives and experiences, and in turn support employees' efforts to take on new challenges.

Yuko Watase
Outside Director

Developing a Trustworthy Organizational Culture through Open Communication

Takayoshi Meiga
Outside Director

I was appointed as an outside director of the Group in June 2023. For around 45 years I worked in the steel industry, improving manufacturing processes and designing and manufacturing new products. Over the past few decades, I also steered management in a drastically changing business environment in the electric furnace industry. Although this is my first time in the chemical industry, using my experience in risk management related to safety, the environment, disaster preparedness, and quality—all of which are common to manufacturing—I will strive to quickly enhance my understanding of the Company's businesses. Since taking on this role, I have seen firsthand the open corporate culture at the Nippon Soda Group. However, to further improve compliance in corporate activities, it is essential that senior management communicates the relevant information and that the Group develops a culture in which employees can give their honest opinions, whether positive or negative.

I believe that ESG initiatives are central to corporate management, and with its contribution to stable agricultural production, for example, the value of the Nippon Soda Group continues to increase. In the previous medium-term business plan, the Group worked to expand its high-added-value businesses while at the same time reforming its business portfolio. In the next plan, Brilliance through Chemistry Stage Ⅱ, it will be important to maintain awareness of the importance of structural reforms.

Directors and Executive Officers

Directors

Eiji Aga
Representative Director, President
Supervision of Marketing & Sales and New Business Planning & Development Dept.

April 1985	Joined the Company
April 2010	Manager, Fine Chemical Dept., Chemicals Business Div.
February 2012	Executive Vice President, Alkaline S.A.S. (Secondment)
April 2015	Manager, Business Strategy & Administration Dept., Chemicals Business Div.
April 2017	Executive Officer, General Manager, Chemicals Business Div., Supervision of Osaka Branch Office
April 2018	Executive Officer, General Manager, Chemicals Business Div.
April 2020	Executive Officer, Supervision of Human Resources Dept.
June 2020	Director, Executive Officer, Supervision of Marketing & Sales, Human Resources Dept. and Purchasing & Logistics Dept.
April 2021	Representative Director, President
April 2022	Representative Director, President Supervision of New Business Planning & Development Dept.
April 2023	Representative Director, President Supervision of Marketing & Sales and New Business Planning & Development Dept. (current position)

Board of Directors' meeting attendance: 22/22

Atsuo Watanabe
Director
Executive Managing Officer
Supervision of Technology and Responsible Care Management Dept., General Manager, Production & Technology Div., Manager, Trade Administration Dept.

April 1985	Joined the Company
April 2008	Manager, Manufacturing Dept., Chiba Plant
April 2012	Manager, R&D Planning and Promotion Dept., Research & Development Div.
April 2014	General Manager, Chiba Plant
April 2017	Executive Officer, General Manager, Chiba Plant
April 2018	Executive Officer, General Manager, Takaoka Plant
April 2021	Executive Officer, General Manager, Production & Technology Div., Manager, Production Planning & Management Dept.
April 2022	Executive Managing Officer, Research & Development Div. and General Manager, Production & Technology Div.
June 2022	Director, Executive Managing Officer, Supervision of Technology, Purchasing & Logistics Dept. and Responsible Care Management Dept., General Manager, Production & Technology Div., Manager, Trade Administration Dept.
April 2023	Director, Executive Managing Officer, Supervision of Technology and Responsible Care Management Dept., General Manager, Production & Technology Div., Manager, Trade Administration Dept. (current position)

Board of Directors' meeting attendance: 18/18
(since becoming Company director)

Osamu Sasabe
Director
Executive Managing Officer
Corporate Planning Dept. and DX Promotion Dept., General Manager, Purchasing & Logistics Dept.

April 1986	Joined the Company
April 2012	Manager, Information Systems Dept.
April 2016	Manager, Finance & Accounting Dept.
April 2018	Manager, Corporate Strategy Dept.
April 2019	Executive Officer, Manager, Corporate Strategy Dept.
April 2020	Executive Officer, Group Leader, Corporate Strategy Group, Corporate Strategy Dept., Group Leader, DX Promotion Group, Corporate Strategy Dept.
April 2021	Executive Officer, Manager, Corporate Strategy Dept., Group Leader, DX Promotion Group
June 2021	Director, Executive Officer, Human Resources Dept., Manager, Corporate Strategy Dept., Group Leader, DX Promotion Group Representative Director and President of NS Business Support Co., Ltd.
April 2022	Director, Executive Officer, Corporate Strategy Dept., DX Promotion Dept. and Human Resources Dept.
June 2022	Director, Executive Officer, Corporate Strategy Dept., DX Promotion Dept., Secretariat Dept. and Human Resources Dept.
April 2023	Director, Executive Managing Officer, Corporate Planning Dept. and DX Promotion Dept., General Manager, Purchasing & Logistics Dept. (current position)

Board of Directors' meeting attendance: 22/22

Osamu Shimizu
Director
Executive Officer
Supervision of Administration and CSR Promotion

April 1986	Joined the Industrial Bank of Japan, Limited
April 2015	Joined the Company
April 2016	Deputy Manager, Corporate Strategy Dept.
April 2018	Manager, Finance & Accounting Dept.
April 2019	Executive Officer, Manager, Finance & Accounting Dept.
April 2021	Executive Officer, General Affairs Dept., Manager, Finance & Accounting Dept.
April 2022	Executive Officer, General Affairs Dept. and Finance & Accounting Dept.
June 2022	Director, Executive Officer, Supervision of CSR Promotion, Internal Control & Audit Dept., General Affairs Dept. and Finance & Accounting Dept.
April 2023	Director, Executive Officer, Supervision of Administration and CSR Promotion, Representative Chairman and President, Nisso Namhae Agro Co., Ltd.
June 2023	Director, Executive Officer, Supervision of Administration and CSR Promotion (Representative Chairman and President, Nisso Namhae Agro Co., Ltd. Representative Director and President, NS Business Support Co., Ltd.) (current position)

Board of Directors' meeting attendance: 18/18
(since becoming Company director)

Mitsuaki Tsuchiya
Director (Outside Director)

April 1977	Joined the Industrial Bank of Japan, Limited
September 2000	General Manager, ALM Planning Dept., Mizuho Holdings Inc.
April 2002	General Manager, Secretarial Office, Mizuho Corporate Bank, Ltd.
April 2004	Executive Officer and General Manager, Secretariat Office
March 2006	Executive Managing Officer in charge of Sales
April 2008	Deputy President & Executive Officer, Mizuho Trust & Banking Co., Ltd.
June 2008	Representative Director and Deputy President
April 2011	Executive Officer and Vice President, Mizuho Financial Group, Inc.
June 2011	Director and Vice-President
April 2012	President and CEO, Mizuho Research Institute, Ltd.
June 2012	Auditor (outside), The Japan Atomic Power Company (current position)
June 2017	Outside Corporate Auditor, Japan Bank for International Cooperation (current position), Outside Director, Audit & Supervisory Committee member, ASAHI INDUSTRIES CO., LTD., Corporate Auditor, Dai-ichi Leasing Co., Ltd.
June 2019	Outside Director, Godo Steel, Ltd. (current position)
June 2020	Outside Director, the Company (current position)

Board of Directors' meeting attendance: 22/22

Yuko Watase
Director (Outside Director)

April 1982	Joined Seika Sangyo GmbH
October 1988	Joined KPMG Minato Audit Corporation (now KPMG AZSA LLC)
April 1992	Registered as a certified public accountant
August 1993	Seconded to KPMG Fides (now KPMG AG, Switzerland)
October 1996	Joined KPMG Century Audit Corporation (now KPMG AZSA LLC)
October 2002	Director, KPMG FAS Co., Ltd.
October 2003	Partner, KPMG FAS Co., Ltd.
June 2018	Managing Director, KPMG FAS Co., Ltd.
June 2021	Resigned as Managing Director, KPMG FAS Co., Ltd.
June 2022	Outside Director of the Company (current position)

Board of Directors' meeting attendance: 18/18
(since becoming Company director)

Takayoshi Meiga
Director (Outside Director)

April 1977	Joined Nippon Steel Corporation
November 2000	Manager, Steel Dept., Sakai Steelworks, Construction Materials Business Division, Nippon Steel Corporation
April 2007	Executive Officer, General Manager, Sakai Steelworks, Construction Materials Business Division, Nippon Steel Corporation
April 2009	Executive Officer, General Manager, Yahata Steelworks, Nippon Steel Corporation
April 2011	Managing Executive Officer, Nippon Steel Corporation
June 2011	Managing Director, Nippon Steel Corporation
November 2011	Managing Director, General Manager, Plant Engineering and Facility Management Center, Nippon Steel Corporation
April 2012	Managing Director, Nippon Steel Corporation
April 2013	Director, Nippon Steel Corporation Advisor, Godo Steel, Ltd.
June 2013	Vice President and Sales Supervisor, Godo Steel, Ltd.
June 2014	President and Representative Director, Godo Steel, Ltd.
June 2020	Director and Consultant, Godo Steel, Ltd.
June 2021	Consultant, Godo Steel, Ltd.
June 2022	Resigned as Director, Godo Steel, Ltd.
June 2023	Outside Director of the Company (current position)

Board of Directors' meeting attendance: N/A
(new appointment)

Directors Who Are Members of the Audit and Supervisory Committee

Nobuyuki Hori
Director
Audit and Supervisory Committee Member (Full time)

April 1987	Joined the Company
April 2012	Group Leader, Fine Chemical Group, Chemicals Business Div.
July 2013	Group Leader, Sodium Business Group, Chemicals Business Div.
April 2014	Manager, Sodium Business Dept. and Business Strategy & Administration Dept., Chemicals Business Div.
April 2015	Executive Vice President, Alkaline S.A.S. (Secondment)
October 2017	Chief, Chemicals Business Div.
April 2018	Deputy Manager, Corporate Strategy Dept.
April 2020	Executive Officer, Special Missions (until March 2021)
June 2020	Managing Director, Nisso Fine Co., Ltd.
April 2021	Executive Officer, the Company
April 2022	Executive Officer, Special Missions
June 2022	Director, Audit and Supervisory Committee member (current position)

Board of Directors' meeting attendance: 18/18
Audit and Supervisory Committee meeting attendance: 11/11
(since becoming Company director)

Yoko Waki
Director (Outside Director)
Audit and Supervisory Committee Member

October 2002	Registered as attorney-at-law (Dai-Ichi Tokyo Bar Association) and joined South Toranomon Law Offices
January 2012	Partner (current position)
June 2019	Independent Director, HIGASHI TWENTY ONE CO., LTD. (current position)
June 2020	Outside Director and Audit and Supervisory Committee member of the Company (current position)

Board of Directors' meeting attendance: 22/22
Audit and Supervisory Committee meeting attendance: 15/15

Hayato Yoshida
Director (Outside Director)
Audit and Supervisory Committee Member

April 1983	Joined Nissan Motor Co., Ltd.
October 1988	Joined Chuo Shinko Audit Corporation (now MISUZU Audit Corporation)
March 1992	Registered as a Certified Public Accountant
November 1993	Seconded to Coopers & Lybrand in Germany
August 2000	Joined MISUZU Audit Corporation
September 2006	Senior Partner, MISUZU Audit Corporation
August 2007	Partner, Tohmatsu & Co. (now Deloitte Touche Tohmatsu LLC)
July 2021	Representative, Yoshida Hayato Certified Public Accountant Office (current position)
June 2022	Outside Director and Audit and Supervisory Committee member of the Company (current position) Corporate Auditor, The Musashino Bank, Ltd. (current position)

Board of Directors' meeting attendance: 18/18
Audit and Supervisory Committee meeting attendance: 11/11
(since becoming Company director)

Executive Officers

Executive Officer
Kazunori Akatsuka
General Manager, Nihongi Plant

Executive Officer
Yasuyuki Miyazawa
General Manager, Chiba Plant

Executive Officer
Atsuhiro Seshimo
General Manager, Takaoka Plant

Executive Officer
Akira Mitani
General Manager, Research & Development Div.

Executive Officer
Akemi Osawa
General Manager, Odawara Research Center, Research & Development Div.

Executive Officer
Kazuo Oba
General Manager, Agro Products Div.

Executive Officer
Tamotsu Tanimura
Manager, Corporate Planning Dept.

10-year Financial and Non-financial Highlights

		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Operating Results											
Net sales	(Millions of yen)	140,649	148,062	142,711	128,647	141,230	145,663	144,739	139,363	152,536	172,811
Operating profit	(Millions of yen)	6,399	7,285	7,415	5,365	6,390	7,906	8,135	9,980	11,930	16,893
Operating profit on sales (ROS)	(%)	4.5	4.9	5.2	4.2	4.5	5.4	5.6	7.2	7.8	9.8
Share of profit (loss) of entities accounted for using equity method	(Millions of yen)	2,705	6,338	11,728	4,898	2,239	(1)	1,841	1,856	3,063	7,841
Ordinary profit	(Millions of yen)	9,740	14,924	18,952	9,908	9,204	8,888	10,312	12,743	16,512	26,456
Profit attributable to owners of parent	(Millions of yen)	5,833	10,945	14,313	8,785	6,378	5,802	6,759	7,360	12,683	16,692
Financial Position											
Total assets	(Millions of yen)	204,297	221,285	220,587	217,302	219,457	216,212	210,556	227,975	245,585	251,350
Net assets	(Millions of yen)	108,224	127,181	131,489	138,069	144,801	144,916	144,440	149,203	158,298	170,959
Equity ratio	(%)	50.0	54.6	58.5	62.3	64.6	65.6	67.1	63.9	63.5	67.3
Interest-bearing debt	(Millions of yen)	50,696	49,343	49,847	39,240	31,939	26,116	29,220	39,145	40,247	32,376
Debt-to-equity ratio[1]	(Times)	0.50	0.41	0.39	0.29	0.23	0.18	0.21	0.27	0.26	0.19
Return on equity (ROE)	(%)	5.9	9.8	11.5	6.6	4.6	4.1	4.8	5.1	8.4	10.3
Operating profit on assets (ROA)	(%)	3.2	3.4	3.4	2.5	2.9	3.6	3.8	4.6	5.0	6.8
Cash Flows											
Cash flows from operating activities	(Millions of yen)	11,260	9,588	10,639	41,236	12,085	11,677	12,449	13,821	14,545	15,590
Cash flows from investing activities	(Millions of yen)	(11,805)	(4,600)	(9,424)	(7,858)	(8,327)	(15,280)	(10,399)	(13,770)	(11,620)	(4,863)
Free cash flow[2]	(Millions of yen)	(545)	4,988	1,215	33,377	3,758	(3,603)	2,050	51	2,924	10,726
Cash flows from financing activities	(Millions of yen)	(1,888)	(2,776)	(1,323)	(14,620)	(9,485)	(7,534)	(1,161)	1,722	(4,802)	(10,441)
Cash and cash equivalents at end of period	(Millions of yen)	12,402	14,853	14,494	33,146	27,585	16,536	17,200	19,253	17,898	18,484
Per Share Indicators											
Earnings per share	(Yen)	191.79	359.80	464.03	287.04	211.35	192.27	224.28	255.17	454.39	598.78
Net assets per share	(Yen)	3,362.05	3,971.73	4,144.56	4,485.10	4,698.59	4,698.10	4,734.24	5,165.07	5,597.02	6,070.09
Dividend per share	(Yen)	40	50	60	60	60	60	80	110	180	240
Dividend payout ratio	(%)	20.9	13.9	12.9	20.9	28.4	31.2	35.7	43.1	39.6	40.1
Others											
Capital expenditure	(Millions of yen)	6,115	7,987	6,764	6,512	8,589	8,026	8,824	7,718	13,113	13,255
Depreciation	(Millions of yen)	6,480	6,436	6,242	6,397	6,532	6,966	7,578	7,662	8,577	9,078
R&D costs	(Millions of yen)	6,480	6,343	6,670	6,495	7,250	6,241	6,127	5,791	5,844	6,309
Non-financial Indicators											
Carbon dioxide emissions	(Thousand tons)	222	223	214	218	226	207	203	188	187	141
Energy consumption (in crude oil equivalent)	(ML)	94.8	99.0	93.9	94.9	96.4	93.7	93.1	88.3	93.0	68.8
Number of employees (consolidated)	(Persons)	2,501	2,507	2,664	2,684	2,683	2,724	2,744	2,770	2,785	2,418

This document has been translated from the Japanese original for reference purposes only. In the event of any discrepancy between this translation and the Japanese original, the Japanese original shall prevail.
Note 1: Figures shown have been rounded down to the nearest million.
Note 2: The Company carried out a reverse stock split of its common shares on a one-for-five basis on October 1, 2018. All per share indicators are calculated on the assumption that the reverse stock split was executed.
Note 3: Carbon dioxide emissions and energy consumption (in crude oil equivalent) are reports related to Nippon Soda (non-consolidated).
1. Debt-to-equity ratio = Interest-bearing debt ÷ Equity capital
(Equity capital = Net assets − Share acquisition rights − Non-controlling interests)
2. Free cash flow = Cash flows from operating activities + Cash flows from investing activities

Financial Review

Operating Results

Although the economy in Japan during the fiscal period under review showed signs of recovery following the stagnation of economic activity brought about by the COVID-19 pandemic, due to global disruptions in marine transport, skyrocketing raw material and fuel prices, and growing geopolitical risks, there was continued uncertainty surrounding the future.

Under such circumstances, at the Nippon Soda Group we promoted our Long-term Vision (FY 2021–FY 2030) and our medium-term business plan (FY 2021–FY 2023), and poured all our efforts into various measures aimed at enhancing corporate value.

In the period under review, in addition to an increase in sales in the Agro Products, Chemicals, and Trading businesses, a rise in plant construction works in the Construction business and sales price revisions to counter soaring raw material and fuel prices saw net sales increase to ¥172,811 million (up 13.3% year on year) and operating profit reach ¥16,893 million (up 41.6% year on year).

Meanwhile, ordinary profit reached ¥26,456 million (up 60.2% year on year) in line with an increase in profit of entities accounted for using the equity method and other factors. Profit attributable to owners of parent increased to ¥16,692 million (up 31.6% year on year) due to extraordinary income from the transfer of all shares of our former consolidated subsidiary Alkaline S.A.S., despite extraordinary losses from structural reforms.

Results by Segment

Chemicals

Although sales of industrial chemicals and eco business products fell due to structural reforms in the caustic potash and peripheral businesses, sales of pharmaceuticals and industrial fungicides, fine chemicals, and specialty chemicals increased. We also implemented sales price revisions to counter soaring raw material and fuel prices.

As a result, net sales and operating profit in the period under review reached ¥47,595 million (up 8.4% year on year) and ¥2,796 million (up 13.1% year on year), respectively.

In industrial chemicals, although sales of caustic soda grew in line with sales price revisions, sales of caustic potash and potassium carbonate declined due to structural reforms. Sales of sodium cyanide also fell, and as a result overall sales decreased.

On the other hand, overall sales of fine chemicals grew due to increases in both secondary battery materials and color developers for thermal paper.

Despite a drop in sales of the resin additive NISSO-PB, overall specialty chemicals marked a rise in sales due to increases in the KrF photoresist material VP-POLYMER.

In eco business products, despite an increase in sales of the heavy metal fixative HIDION following sales price revisions, sales of water treatment agent NISSO HI-CHLON for export decreased, and overall sales fell.

However, a rise in sales of our pharmaceutical additive NISSO HPC ensured that overall sales of pharmaceuticals and industrial fungicides increased.

Agro Products

Due to strong demand from overseas, sales of fungicides, insecticides, and acaricides for export increased.

As a result, net sales and operating profit in the period under review stood at ¥58,756 million (up 16.2% year on year) and ¥9,471 million (up 71.8% year on year), respectively.

In fungicides, export sales of TOPSIN-M (thiophanate-methyl), PYTHILOCK (picarbutrazox), and PANCHO TF (cyflufenamid-triflumizole) grew, and overall sales increased.

Meanwhile, sales of insecticides and acaricides also increased due to growth in export sales of the insecticides MOSPILAN (acetamiprid) and LOMDAN (tebufenozide) and the acaricide DANYOTE (acynonapyr).

Overall sales of herbicides also increased due to a rise in domestic sales of CONCLUDE (flupoxam).

Trading

In line with an increase in sales of both organic and inorganic materials, in the year under review, net sales and operating profit in the Trading Business reached ¥39,352 million (up 10.3% year on year) and ¥1,520 million (up 29.8% year on year), respectively.

Transportation and Warehousing

However, the Transportation and Warehousing Business saw net sales in the period under review fall to ¥4,275 million (down 4.2% year on year) and operating profit to ¥673 million (down 1.8% year on year), respectively, due to poor performance in transportation.

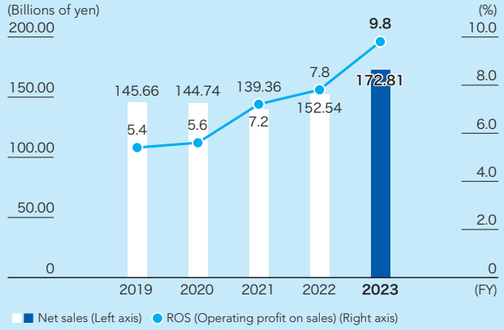
Construction

On the other hand, an increase in plant construction works in the Construction Business saw net sales and operating profit in the year under review rise to ¥13,079 million (up 59.2% year on year) and ¥1,894 million (up 65.7% year on year), respectively.

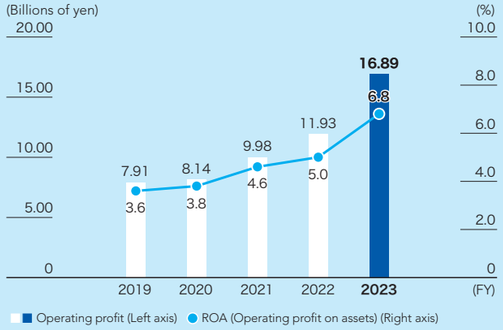
Others

In others, net sales and operating profit stood at ¥9,751 million (on par with the previous year) and ¥575 million (down 45.9% year on year), respectively.

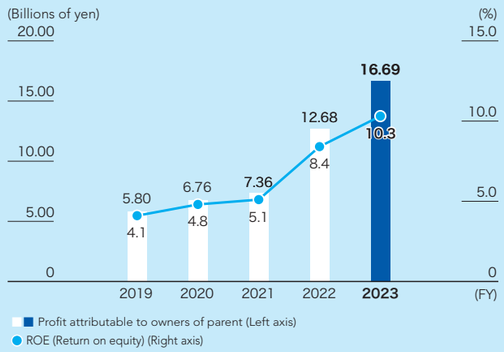
Net Sales, ROS



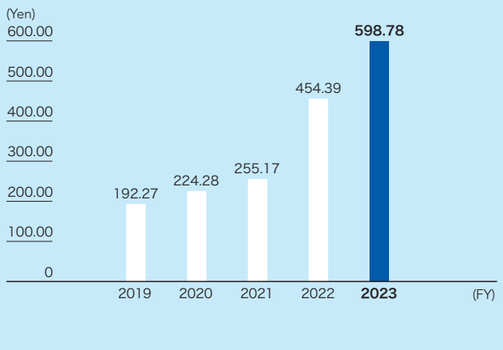
Operating Profit, ROA



Profit Attributable to Owners of Parent, ROE



Earnings per Share

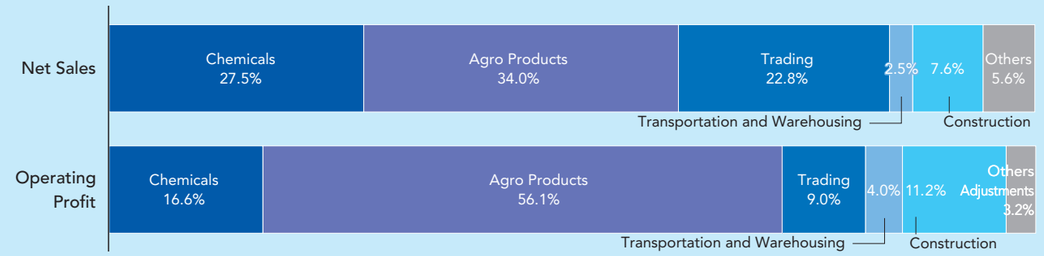


Consolidated Results for FY 2023 (By Segment)

(Billions of yen)

	FY 2021		FY 2022		FY 2023	
	Net Sales	Operating Profit	Net Sales	Operating Profit	Net Sales	Operating Profit
Chemicals	37.57	1.72	43.89	2.47	47.60	2.80
Agro Products	48.20	4.84	50.56	5.51	58.76	9.47
Trading	32.32	0.73	35.68	1.17	39.35	1.52
Transportation and Warehousing	4.22	0.60	4.46	0.69	4.28	0.67
Construction	8.51	1.10	8.22	1.14	13.08	1.89
Others	8.54	0.78	9.72	1.06	9.75	0.58
Adjustments	—	0.21	—	(0.12)	—	(0.04)
Total	139.36	9.98	152.54	11.93	172.81	16.89

Revenue Structure in FY 2023



Financial Position

Despite a decrease in property, plant and equipment, as well as notes and accounts receivable and contract assets, due to the exclusion of Alkaline S.A.S. from consolidation, total assets as of March 31, 2023, increased ¥5,764 million compared with March 31, 2022, to ¥251,350 million due to a rise in inventories and an increase in investment securities from the share of profit of entities accounted for using equity method.

Total liabilities fell ¥6,896 million compared with March 31, 2022, to ¥80,390 million due to various factors, including a decrease in notes and accounts payable and borrowings from the exclusion of Alkaline S.A.S. from consolidation.

Net assets increased ¥12,661 million compared with March 31, 2022, to ¥170,959 million. As a result, the equity ratio as of March 31, 2023 stood at 67.3%.

Cash Flows

Cash and cash equivalents for the year under review increased ¥586 million to ¥18,484 million. Despite profit before income taxes of ¥24,217 million (including ¥7,841 million of share of profit of entities accounted for using equity method, a non-cash item), depreciation of ¥9,078 million, and income from the sale of subsidiary shares from a change in scope of consolidation of ¥6,660 million, this was mainly attributable to purchase of property, plant and equipment of ¥10,878 million, a rise in inventories of ¥11,106 million, dividend payments of ¥5,979 million, and corporate tax payments of ¥3,578 million.

Research and Development

In order to promote the development of high-added-value products based on its characteristic, unique technologies, the Nippon Soda Group has been making efforts in R&D aimed at developing functional materials and various chemicals using precise synthesis technologies in the Chemicals Business and new agrochemicals in the Agro Products Business, based on the keywords of "fusion of knowledge," "fusion of technologies," and "global." To prepare for expected changes in the business environment, the Group also seeks to reinforce and expand its existing products, forcefully push forward with the development of new products in peripheral areas related to existing businesses as well as focus areas, and enhance the technological strength of the entire Group through technological partnerships with affiliates, as well as enter new technology areas and create new businesses through the active use of its proprietary technologies.

The R&D situation of each segment during the fiscal year under review was as follows.

Total R&D costs were ¥6,309 million (3.7% of consolidated net sales). The number of R&D personnel was 318 for the entire Group (13.2% of total employees).

Chemicals

The Group is carrying out development of chemicals that leverages its technological characteristics in fields such as new polymer materials using precision polymerization technology and organic electroluminescence materials. In January 2022, we launched the new functional polymer liquid 1,2-SBS (styrene-butadiene-styrene) in the market using our precision polymerization technology. We will look to extend sales of the product for use in copper clad laminates (CCL) for next-generation high-speed communication, electronic materials, synthetic rubbers, and adhesives.

Elsewhere, we are working with the in-house Cellulose Technical Application Center (CTAC) to develop a new brand of cellulose derivative for the pharmaceutical and food sectors. For liquid polybutadiene products, color developers for thermal paper, environmental chemistry-related products such as eco business products, photocatalysts and biocides, and organic metals-related products, we are working to enhance our competitiveness in the market while proactively engaging in R&D for new applications and new brand development.

In the precision synthesis area, we have begun contracting manufacturing of products using our unique ability to handle raw materials such as phosgene, hydrocyanic acid and metallic sodium, and are aiming to use these manufacturing technologies to create new products.

R&D costs in the Chemicals Business were ¥1,345 million.

Agro Products

Amid growing interest in food safety and security, the Group has been carrying out research mainly in agrochemicals for crop and fruit farming that show activity with a low dosage and have low persistence.

We are also aggressively promoting overseas development for PYTHILOCK (picarbutrazox), a fungicide that shows a prominent effect against downy mildew and *Pythium* blight. In the US, in addition to its use as a seed treatment for major grain groups such as corn, the product is growing in popularity for use on golf course lawns. In China and other parts of Asia, we anticipate a further increase in sales. In October 2020, the Group launched DANYOTE (acynonapyr), an acaricide that has a new mode of action, and the product is gaining in popularity. For MIGIWA (ipflufenoquin), a fungicide that is effective against a broad range of diseases, nationwide sales commenced in December 2022. Overseas development has also been proceeding steadily, and the product was registered in the US in March 2022. Various tests for registration are also being carried out in other countries. Furthermore, the Group is conducting research on subsequent promising compounds to advance them to the next phase.

Apart from agrochemicals, biopesticides AGROCARE (*Bacillus subtilis*) and MASTERPIECE (*Pseudomonas rhodesiae*) have been achieving steady sales. The Group will continue to make efforts to enhance its lineup of biopesticides that utilize the various functions of microorganisms.

R&D costs in the Agro Products Business were ¥4,962 million.

Others

In the environmental development business, the Group is engaged in research to improve the recycling process of difficult-to-process industrial waste. In others, R&D costs were ¥0 million.

Capital Expenditure

The Nippon Soda Group made capital investments of ¥13,255 million in the period under review, mainly to build mass-production facilities for new products and to streamline other manufacturing facilities in the Agro Products Business. Capital expenditures in each segment are as follows.

Chemicals

The Chemicals Business made capital investments of ¥4,129 million mainly on the enhancement, streamlining, maintenance and updating of the manufacturing equipment for its various products.

Agro Products

The Agro Products Business made capital investments of ¥6,601 million mainly on the construction of facilities for mass production of a new fungicide and the enhancement, streamlining, maintenance and updating of the manufacturing equipment for its various products.

Trading

The Trading Business made capital investments of ¥4 million mainly in streamlining, maintenance and updating.

Transportation and Warehousing

The Transportation and Warehousing Business made capital investments of ¥283 million mainly in streamlining, maintenance and updating.

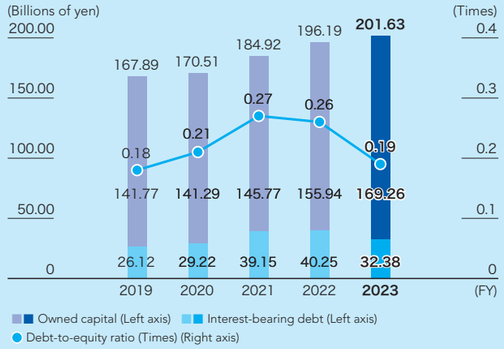
Construction

The Construction Business made capital investments of ¥493 million mainly in streamlining, maintenance and updating.

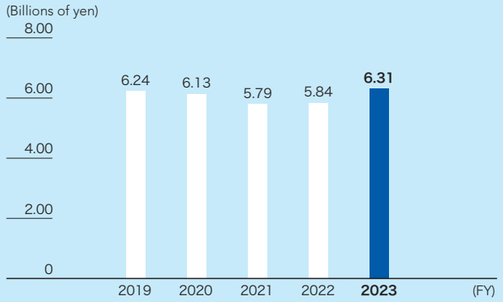
Others

Other businesses made capital investments of ¥1,744 million mainly in streamlining, maintenance and updating of equipment related to environmental development.

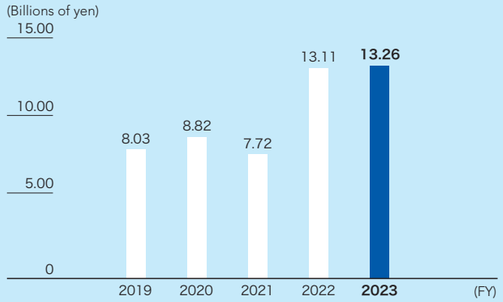
Debt-to-Equity Ratio



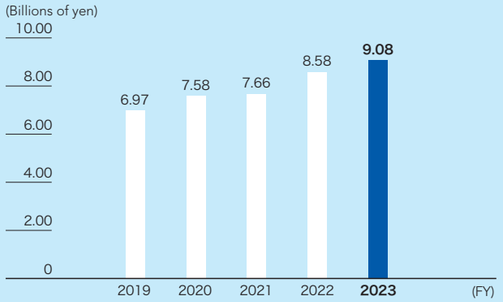
R&D Costs



Capital Expenditure



Depreciation



Consolidated Financial Statements

Consolidated Balance Sheets

(Millions of yen)

	As of March 31, 2022	As of March 31, 2023
Assets		
Current assets		
Cash and deposits	17,936	18,506
Notes and accounts receivable and contract assets	48,561	43,515
Electronically recorded monetary claims - operating	3,947	5,269
Inventories	34,861	43,970
Others	3,716	3,481
Allowance for doubtful accounts	(11)	(7)
Total current assets	109,011	114,735
Fixed assets		
Property, plant and equipment		
Buildings and structures	67,963	68,082
Accumulated depreciation	(46,221)	(44,855)
Buildings and structures, net	21,741	23,227
Machinery, equipment and vehicles	125,124	122,043
Accumulated depreciation	(103,681)	(101,991)
Machinery, equipment and vehicles, net	21,442	20,051
Tools, furniture and fixtures	12,139	12,959
Accumulated depreciation	(10,119)	(10,594)
Tools, furniture and fixtures, net	2,020	2,364
Land	14,945	15,024
Construction in progress	5,768	1,320
Others	2,300	188
Accumulated depreciation	(1,053)	(157)
Others, net	1,246	31
Total property, plant and equipment	67,165	62,019
Intangible fixed assets		
Goodwill	158	129
Others	4,810	3,864
Total intangible fixed assets	4,969	3,994
Investments and other assets		
Investment securities	47,666	55,523
Retirement benefit assets	11,717	11,178
Deferred tax assets	3,338	2,110
Others	1,718	1,789
Allowance for doubtful accounts	(1)	(1)
Total investments and other assets	64,439	70,601
Total non-current assets	136,574	136,614
Total assets	245,585	251,350

(Millions of yen)

	As of March 31, 2022	As of March 31, 2023
Liabilities		
Current liabilities		
Notes and accounts payable - trade	19,093	16,707
Electronically recorded obligations - operating	2,229	2,693
Short-term borrowings	22,572	15,395
Income taxes payable	2,248	4,365
Provision for bonuses	4,370	6,408
Others	6,769	5,161
Total current liabilities	57,284	50,731
Non-current liabilities		
Long-term borrowings	16,414	16,943
Deferred tax liabilities	6,920	7,148
Retirement benefit liability	2,230	1,335
Provision for environmental measures	465	1,446
Others	3,971	2,785
Total non-current liabilities	30,002	29,659
Total liabilities	87,287	80,390
Net assets		
Shareholders' equity		
Share capital	29,166	29,166
Capital surplus	25,670	25,834
Retained earnings	96,399	107,090
Treasury shares	(2,830)	(2,410)
Total shareholders' equity	148,406	159,681
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	11,257	10,993
Deferred gains or losses on hedges	(14)	79
Foreign currency translation adjustment	(5,184)	(1,684)
Accumulated remeasurements of defined benefit plans	1,479	187
Total accumulated other comprehensive income	7,537	9,575
Non-controlling interests	2,354	1,702
Total net assets	158,298	170,959
Total liabilities and net assets	245,585	251,350

Consolidated Statements of Income

(Millions of yen)

	Fiscal year ended March 31, 2022	Fiscal year ended March 31, 2023
Net sales	152,536	172,811
Cost of sales	110,430	123,533
Gross profit	42,105	49,278
Selling, general and administrative expenses	30,174	32,384
Operating profit	11,930	16,893
Non-operating income	5,627	10,716
Non-operating expenses	1,046	1,153
Ordinary profit	16,512	26,456
Extraordinary income	1,796	2,724
Extraordinary losses	853	4,963
Profit before income taxes	17,455	24,217
Income taxes - current	3,059	5,608
Income taxes - deferred	1,378	1,685
Total income taxes	4,438	7,293
Profit	13,016	16,924
Profit attributable to non-controlling interests	332	231
Profit attributable to owners of parent	12,683	16,692

Consolidated Statements of Comprehensive Income

(Millions of yen)

	Fiscal year ended March 31, 2022	Fiscal year ended March 31, 2023
Profit	13,016	16,924
Other comprehensive income		
Valuation difference on available-for-sale securities	1,446	(271)
Deferred gains or losses on hedges	(172)	97
Foreign currency translation adjustment	645	68
Remeasurements of defined benefit plans	(87)	(1,285)
Share of other comprehensive income of entities accounted for using equity method	332	3,445
Total other comprehensive income	2,165	2,054
Comprehensive income	15,182	18,979
(Breakdown)		
Comprehensive income attributable to owners of parent	14,786	18,730
Comprehensive income attributable to non-controlling interests	395	248

Consolidated Statements of Changes in Equity

Fiscal year ended March 31, 2022

(Millions of yen)

	Shareholders' equity				
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at beginning of period	29,166	25,141	89,364	(3,338)	140,334
Cumulative effects of changes in accounting policies			(394)		(394)
Restated balance	29,166	25,141	88,969	(3,338)	139,939
Changes during period					
Dividends of surplus			(3,516)		(3,516)
Profit attributable to owners of parent			12,683		12,683
Purchase of treasury shares				(1,234)	(1,234)
Disposal of treasury shares		0		4	4
Cancellation of treasury shares		(1,737)		1,737	—
Transfer of retained earnings to capital surplus		1,737	(1,737)		—
Change in ownership interest of parent due to transactions with non-controlling interests		528			528
Net changes in items other than shareholders' equity					
Total changes during period	—	528	7,429	508	8,466
Balance at end of period	29,166	25,670	96,399	(2,830)	148,406

	Accumulated other comprehensive income					Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Accumulated remeasurements of defined benefit plans	Total accumulated other comprehensive income		
Balance at beginning of period	9,825	89	(6,075)	1,594	5,434	3,434	149,203
Cumulative effects of changes in accounting policies							(394)
Restated balance	9,825	89	(6,075)	1,594	5,434	3,434	148,808
Changes during period							
Dividends of surplus							(3,516)
Profit attributable to owners of parent							12,683
Purchase of treasury shares							(1,234)
Disposal of treasury shares							4
Cancellation of treasury shares							—
Transfer of retained earnings to capital surplus							—
Change in ownership interest of parent due to transactions with non-controlling interests							528
Net changes in items other than shareholders' equity	1,431	(104)	891	(114)	2,102	(1,080)	1,022
Total changes during period	1,431	(104)	891	(114)	2,102	(1,080)	9,489
Balance at end of period	11,257	(14)	(5,184)	1,479	7,537	2,354	158,298

Fiscal year ended March 31, 2023

(Millions of yen)

	Shareholders' equity				
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at beginning of period	29,166	25,670	96,399	(2,830)	148,406
Changes during period					
Dividends of surplus			(6,000)		(6,000)
Profit attributable to owners of parent			16,692		16,692
Purchase of treasury shares				(3)	(3)
Disposal of treasury shares		24		244	269
Cancellation of treasury shares		(178)		178	—
Change in ownership interest of parent due to transactions with non-controlling interests		318			318
Net changes in items other than shareholders' equity					
Total changes during period	—	163	10,691	419	11,274
Balance at end of period	29,166	25,834	107,090	(2,410)	159,681

	Accumulated other comprehensive income					Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Accumulated remeasurements of defined benefit plans	Total accumulated other comprehensive income		
Balance at beginning of period	11,257	(14)	(5,184)	1,479	7,537	2,354	158,298
Changes during period							
Dividends of surplus							(6,000)
Profit attributable to owners of parent							16,692
Purchase of treasury shares							(3)
Disposal of treasury shares							269
Cancellation of treasury shares							—
Change in ownership interest of parent due to transactions with non-controlling interests							318
Net changes in items other than shareholders' equity	(263)	94	3,499	(1,291)	2,038	(651)	1,386
Total changes during period	(263)	94	3,499	(1,291)	2,038	(651)	12,661
Balance at end of period	10,993	79	(1,684)	187	9,575	1,702	170,959

Consolidated Statements of Cash Flows

(Millions of yen)

	Fiscal year ended March 31, 2022	Fiscal year ended March 31, 2023
Cash flows from operating activities		
Profit before income taxes	17,455	24,217
Depreciation	8,577	9,078
Amortization of goodwill	30	30
Impairment loss	148	941
Share of loss (profit) of entities accounted for using equity method	(3,063)	(7,841)
Increase (decrease) in provision for bonuses	441	2,034
Increase (decrease) in allowance for doubtful accounts	(199)	(4)
Decrease (increase) in retirement benefit assets	(504)	(1,030)
Increase (decrease) in retirement benefit liabilities	(257)	(344)
Increase (decrease) in provision for environmental measures	(537)	981
Interest and dividend income	(773)	(1,072)
Interest expenses	279	297
Loss on abandonment of non-current assets	404	1,725
Gain on exchange of subsidiaries' and affiliates' stock	(1,760)	—
Loss (gain) on sale of shares of subsidiaries and associates	—	(2,008)
Loss (gain) on valuation of investment securities	21	602
Loss (gain) on sales of investment securities	27	(114)
Decrease (increase) in trade receivables	(6,802)	2,269
Decrease (increase) in inventories	(2,579)	(11,106)
Increase (decrease) in trade payables	4,149	(185)
Others	865	(1,820)
Subtotal	15,922	16,648
Interest and dividend received	1,914	2,820
Interest paid	(279)	(299)
Income taxes paid	(3,012)	(3,578)
Cash flows from operating activities	14,545	15,590
Cash flows from investing activities		
Purchase of property, plant and equipment	(11,357)	(10,878)
Proceeds from sales of property, plant and equipment	2	379
Purchase of intangible assets	(349)	(208)
Purchase of investment securities	(595)	(69)
Proceeds from sales of investment securities	303	713
Purchase of shares of subsidiaries and associates	—	(7)
Income from liquidation of affiliated companies	530	—
Payment of loans receivable	(72)	(2)
Collection of loans receivable	162	204
Payments for retirement of property, plant and equipment	(282)	(1,503)
Proceeds from sale of shares of subsidiaries resulting in change in scope of consolidation	—	6,660
Others	35	(153)
Cash flows from investing activities	(11,620)	(4,863)
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	682	823
Proceeds from long-term borrowings	2,532	3,163
Repayment of long-term borrowings	(1,992)	(7,704)
Dividends paid	(3,504)	(5,979)
Purchase of treasury shares	(1,236)	(3)
Dividends paid to non-controlling interests	(39)	(93)
Purchase of shares of subsidiaries not resulting in change in scope of consolidation	—	(488)
Purchase of subsidiaries' treasury shares	(904)	—
Others	(340)	(158)
Cash flows from financing activities	(4,802)	(10,441)
Effect of exchange rate change on cash and cash equivalents	523	301
Net increase (decrease) in cash and cash equivalents	(1,355)	586
Cash and cash equivalents at beginning of period	19,253	17,898
Cash and cash equivalents at end of period	17,898	18,484

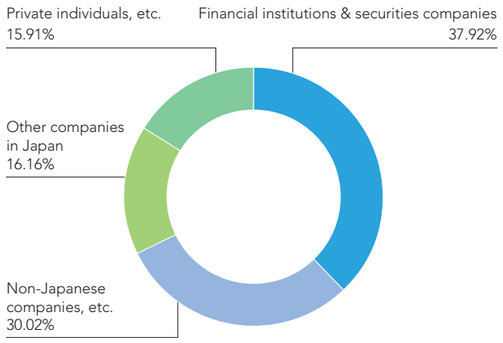
Company Information / Shareholder and Investor Information

(As of March 31, 2023)

Corporate Profile

Name	Nippon Soda Co., Ltd.
Head office	2-7-2, Marunouchi, Chiyoda-ku, Tokyo 100-7010, Japan
Tel	+81-3-6366-1920
Representative	Eiji Aga Representative Director, President
Established	February 1920
Share capital	¥29,166 million
Fiscal year end	March
Number of employees	2,418 (consolidated) 1,361 (non-consolidated)
Stock code	4041
Stock listing	Prime Market, Tokyo Stock Exchange
Number of shares constituting one trading unit	100 shares
Total number of authorized shares	96,000,000 shares
Total number of issued shares	28,747,667 shares (Includes 863,921 shares of treasury stock)
Number of shareholders	18,319 (4,857 more than March 31, 2022)
Fiscal year	April 1 to March 31
Annual general meeting of shareholders	June of each year
Dividend record dates	Year-end dividend: March 31 Interim dividend: September 30
Shareholder registrar	Mizuho Trust & Banking Co., Ltd. 1-3-3, Marunouchi, Chiyoda-ku, Tokyo
Handling office	Stock Transfer Agency Department of the Head Office of Mizuho Trust & Banking Co., Ltd. 1-3-3, Marunouchi, Chiyoda-ku, Tokyo Contact: Stock Transfer Agency Department Mizuho Trust & Banking Co., Ltd. 2-8-4 Izumi, Suginami-ku, Tokyo, Japan 168-8507 Tel.: 0120-288-324 (toll-free within Japan only)

Share Distribution by Type of Shareholder



Note 1: Figures have been rounded to the nearest second decimal point.
Note 2: Treasury shares are included in "Private individuals, etc."

Major Shareholders

Name of shareholder	Number of shares held (Thousands of shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	3,214	11.53
Custody Bank of Japan, Ltd. (Trust Account)	1,750	6.28
JP MORGAN CHASE BANK 385632	1,518	5.44
Mitsui & Co., Ltd.	1,015	3.64
Nippon Soda Client Shareholding Association	934	3.35
The Norinchukin Bank	884	3.17
Mizuho Bank, Ltd.	816	2.93
Sompo Japan Insurance Inc.	513	1.84
Resona Bank, Limited	480	1.72
DFA INTL SMALL CAP VALUE PORTFOLIO	443	1.59

Note 1: The Company holds 863,921 shares of treasury stock. They are not included in the list of major shareholders above.
Note 2: The calculation of shareholding ratio does not include treasury shares.

Group Companies

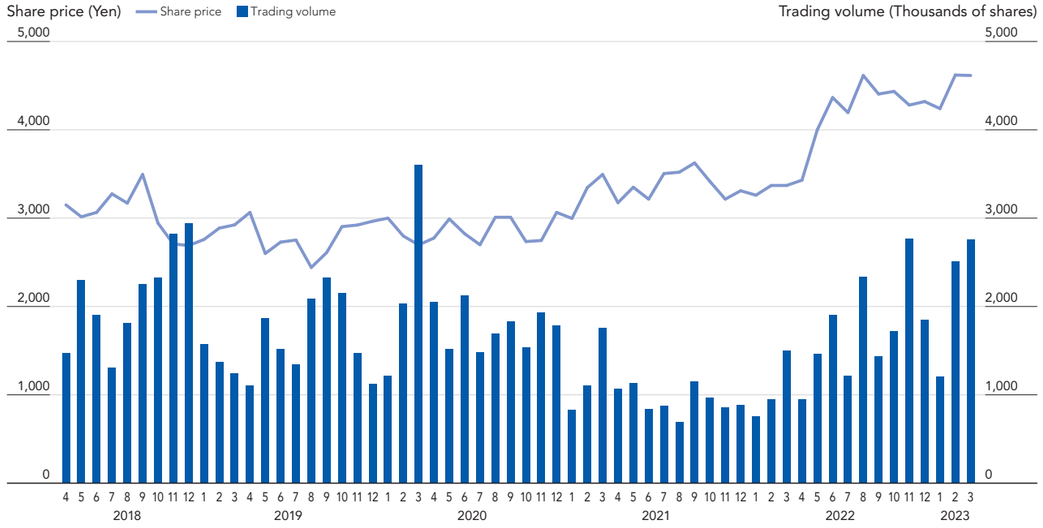
Consolidated subsidiaries

- **Chemical manufacturing**
  Nisso Fine Co., Ltd.
  Shinfuji Kaseiyaku Co., Ltd.
  Nisso Metallochemical Co., Ltd.
- **Trading**
  Nisso Shoji Co., Ltd.
  Nisso Green Co., Ltd.
- **Logistics**
  Sanwa Soko Co., Ltd.
  Sanso Unyu Co., Ltd.
- **Engineering and construction**
  Nisso Engineering Co., Ltd.
  Nisso Kensetsu Co., Ltd.
- **Overseas**
  NISSO AMERICA INC.
  NISSO CHEMICAL EUROPE GmbH
  Nisso Namhae Agro Co., Ltd.

Affiliated companies accounted for by the equity method

NOVUS INTERNATIONAL, INC.
IHARABRAS S/A Indústrias Químicas

Share Price and Trading Volume



		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Profit attributable to owners of parent	(Billions of yen)	5.80	6.76	7.36	12.68	16.69
Total dividends	(Billions of yen)	1.82	2.40	3.13	5.03	6.69
Dividend payout ratio	(%)	31.2	35.7	43.1	39.6	40.1
Purchase of treasury shares	(Billions of yen)	—	0.94	4.83	1.23	0.00
Total return ratio	(%)	31.2	49.4	108.2	49.3	40.1

Note: The Company carried out a reverse stock split of its common shares on a one-for-five basis on October 1, 2018. All per share indicators are calculated on the assumption that the reverse stock split was executed.

Website Information

Please access the following websites for details about the Company.

Corporate Website
https://www.nippon-soda.co.jp/e/

Sustainability
https://www.nippon-soda.co.jp/e/sustainability/

Investor Relations
https://www.nippon-soda.co.jp/e/ir_fact/