

Nippon Soda Group

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**Integrated Report 2022**

 **NIPPON SODA CO.,LTD.**

For inquiries, views, and comments regarding *Integrated Report 2022*, 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.

At a Glance

Product capabilities contributing to stable revenue >>> Net sales 152.5 billion yen

Multiple businesses in global niche domains >>> Ratio of overseas sales 39.2%

R&D and production technology that create long-selling products >>> Research and development investment 5.8 billion yen

A spirit of good people doing good work >>> Number of employees 2,785

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\* Unless otherwise indicated, values are rounded to the nearest increment.

**Editorial Policy**  
Integrated Report 2022 comprehensively conveys the activities of the Nippon Soda Group to increase its corporate value, and achieve its medium- to long-term goals, 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 of the Ministry of Economy, Trade and Industry. From FY 2021, Nippon Soda has replaced the conventional CSR Report with the Integrated Report. The ESG information included in the CSR Report is now posted on the Nippon Soda website in a document entitled ESG Data Book.



**Period of This Report**  
April 1, 2021-March 31, 2022 (FY 2022)  
Also contains some information from beyond this period.

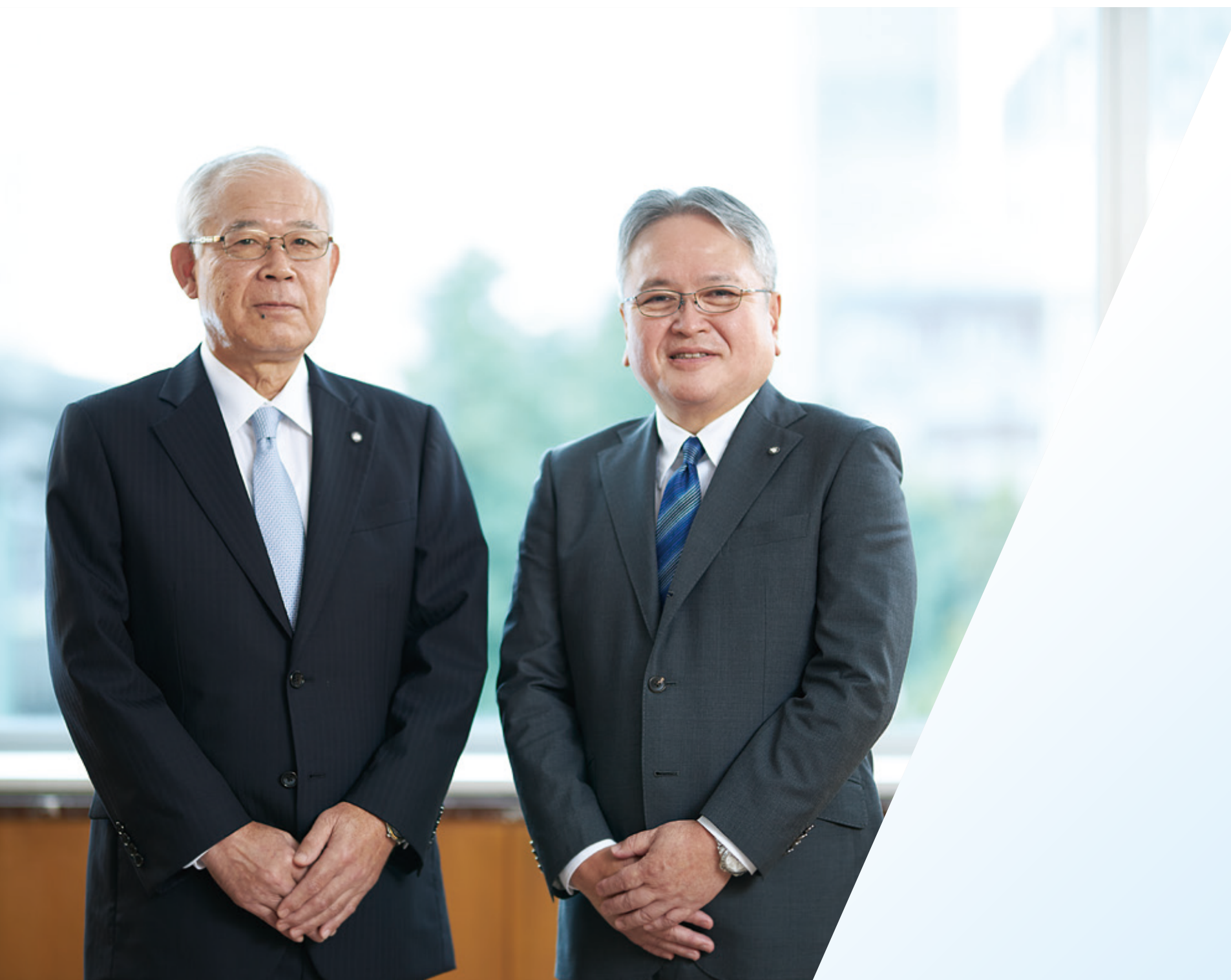
**Scope of This Report**  
Nippon Soda Co., Ltd. and Nippon Soda Group companies.

**Third-party Verification**  
In the interest of ensuring the transparency and reliability of the information contained in Integrated Report 2022 and ESG Data Book 2022, third-party verification has been performed by the Japan Chemical Industry Association. ESG Data Book 2022 contains a statement regarding third-party verification.

**Forward-Looking Statements**  
Integrated Report 2022 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.



## To Our Stakeholders



## We Will Contribute to Society through Chemistry to Improve Both Our Corporate Value and Social Value

Since our founding in 1920, with the support of our stakeholders, at Nippon Soda we have provided new value through chemistry and engaged in business activities to contribute to the development of society.

In line with economic and social development, various challenges have come to the fore, be they environmental issues such as climate change and resource depletion; low birthrates, aging populations, and the ensuing labor shortages in advanced nations; or food problems associated with growing populations in developing nations. To solve these common global issues, with a long-term perspective centered on ESG and the SDGs, corporations are being called upon to urgently engage in initiatives that include carbon neutrality, technological innovation, workstyle reform, and food security and sustainable agriculture.

At the Nippon Soda Group, we have formulated our long-term vision, Brilliance through Chemistry 2030, to help us tackle these challenges. At the same time, we have identified the four fields of agriculture, healthcare, the environment, and ICT as materialities, or important issues, that will help boost our corporate value. Based on our mission—Create new value through the power of chemistry and increase corporate value by contributing to society—we will provide products and services to counter social issues and environmental changes, and in turn contribute to the creation of a sustainable society.

As we look to build a sustainable society, our long-established basic mission to contribute to society remains unchanged. For us to achieve sustainable growth through the improvement of both our corporate value and social value, we will promote sustainability management through CSR Activities to Protect Corporate Value and CSR Activities to Improve Corporate Value.

At the Nippon Soda Group we will work to create new value through the power of chemistry, and engage in sincere corporate activities that meet the expectations and earn the trust of our wide-ranging stakeholders.

**Akira Ishii**

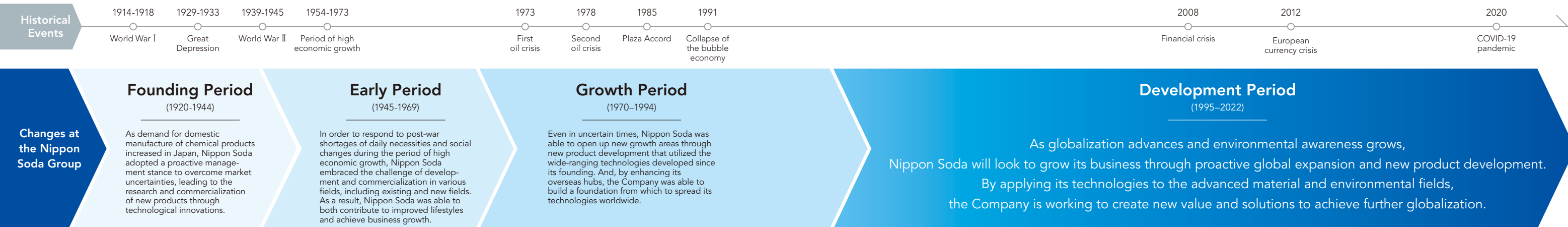
Representative Director,  
Chairman

**Eiji Aga**

Representative Director,  
President

# 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.



**1913**  
Founder Tomonori Nakano received a patent for the Nakano method of salt electrolysis

**1920**  
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**  
Started operations at the Takaoka Plant (Takaoka City, Toyama Prefecture)

**1959**  
Established the Biology Research Laboratory\*2 (Oiso, Naka-gun, Kanagawa Prefecture; integrated into the Odawara Research Center in 1984) **POINT 1**



Biology Research Laboratory

**1969**  
Started production of the fungicide TOPSIN (thiophanate) **POINT 2**  
Started production of the pharmaceutical additive NISSO HPC **POINT 3**

**1969**  
Started operations at the Mizushima Plant (Kurashiki City, Okayama Prefecture)  
Established the Agrochemical Synthesis Research Laboratory\*2 (Odawara City, Kanagawa Prefecture)

**1970**  
Started production of the resin additive NISSO-PB

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

**1972**  
Began capital participation in Iharabras S.A. Industrias Quimicas (Brazil)

**1974**  
Established the Fine Chemicals Research Laboratory\*2 (Odawara City, Kanagawa Prefecture; developed into the Odawara Research Center in 1984)

**1984**  
Established the R&D Laboratory for Functional Materials\*3 (Ichihara City, Chiba Prefecture)  
Established the Odawara Research Center\*2 (Odawara City, Kanagawa Prefecture) **POINT 4**

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

**1995**  
Started production of the insecticide MOSPILAN (acetamiprid) **POINT 5**

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

**2010**  
Established the Chiba Research Center\*3 (Ichihara City, Chiba Prefecture) (Integrated the R&D Laboratory for High-Functional Materials and the Production Technology Department of the Chiba Plant)

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

**2011**  
Acquired Alkaline SAS, a French chemicals manufacturer

**2017**  
Started sales of the fungicide PYTHILOCK (picarbutrazox)

**2018**  
Acquired the plant health business of Zoetis Japan Corporation

**2020**  
Started sales of the acaricide DANYOTE (acynonapyr)

**2021**  
Started sales of the fungicide MIGIWA (ipflufenquin)

**1997**  
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**  
Established the R&D Laboratory for High-Functional Materials\*3 (Ichihara City, Chiba Prefecture)



PYTHILOCK (picarbutrazox) DANYOTE (acynonapyr) MIGIWA (ipflufenquin)

**FY 2022:**  
**¥152.5 billion**

**Net sales**

1920

1945

1970

1995

\*1 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.

\*2 Currently the Odawara Research Center  
\*3 Currently the Chiba Research Center

2022

- Production technology capabilities to continue the stable, safe supply of leading niche products
- Research and development capabilities for continued enhancement of highly effective products
- 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 a point of departure 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 by the notably strict United States Environmental Protection Agency. This success helped to drive the increase in our export of agrochemicals.

## POINT 3

Since 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 even 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, effect assessment, and safety research—to one location.

## POINT 5

As a result of our proactive efforts to make improvements to cater to frontline requests and acquire registration 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.

Creating value  
together with our  
stakeholders

## Create new value through the power of chemistry.

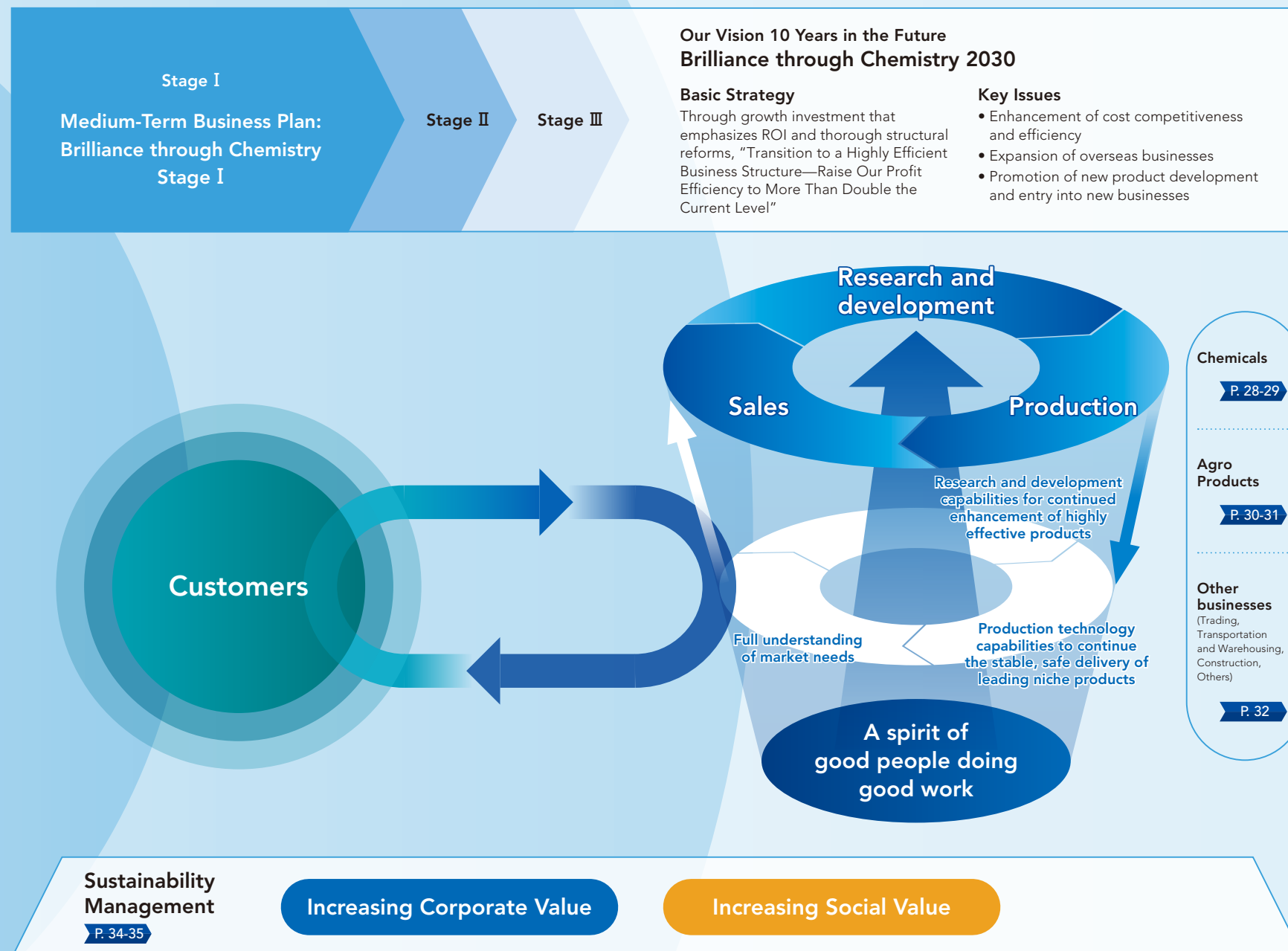
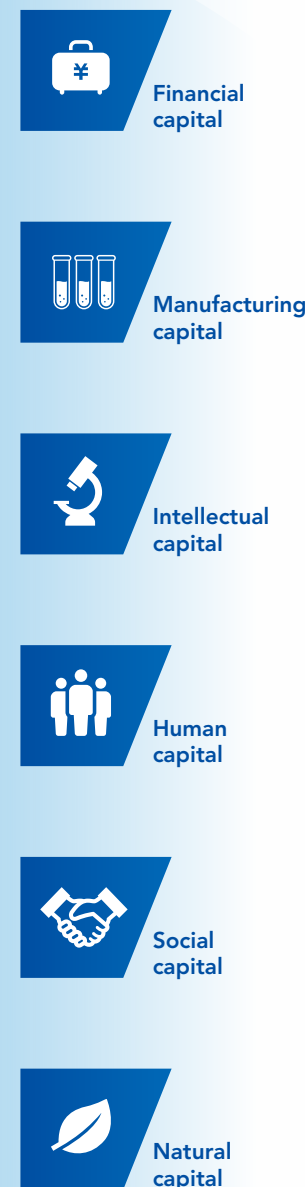
### Megatrends

### Input capital P. 08-09

### Business activities

### Output

### Outcome



### 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: **8% or more**  
(Targets for FY 2030, the final year of our long-term vision)

### Diverse human resources

- Overseas employees **12.7%**  
(FY 2022)
- Female employees **12.8%**  
(FY 2022)  
\* Nippon Soda (Non-consolidated)
- Hires of individuals with disabilities **2.12%**  
(FY 2022)  
\* Nippon Soda (Non-consolidated)

### Progress toward enhancing competitiveness

- Improving core technologies
- Creating in-demand products and services
- Increasing market share

### Reduced environmental footprint

- Reduced CO<sub>2</sub> emissions by **15.8%**  
(Compared to FY 2014)  
\* Nippon Soda (Non-consolidated)
- Reduced energy use by **40.5%**  
(Compared to FY 1991)  
\* Nippon Soda (Non-consolidated)

### Materialities P. 22-23

**Agriculture**  
Securing food and achieving sustainable agriculture



**Healthcare**  
Healthy lives to all people



**Environment**  
Toward a resource recycling society




**ICT**  
Applying the functionality of chemicals to IT devices



## 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 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)** **8% or more**

(Targets for FY 2030, the final year of our long-term vision)

### 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.

While prioritizing return on investment (ROI), we are moving forward with thorough structural reform, such as by proactively investing in high-added-value businesses and liquidating our unprofitable businesses. In doing so, we are promoting the shift to a highly efficient business portfolio.

As part of our current medium-term business plan, we are withdrawing from the electrolysis business related to caustic potash, an area in which we have continued to supply products for more than 90 years since beginning production in 1929. In addition, we are making the shift to high-added-value businesses, such as by launching new proprietary developed agrochemicals to market, and increasing production and boosting sales of growth-driver products. Further, our target for shareholder return in the current medium-term business plan is a dividend payout ratio of 40%, and at the same time we are taking a flexible approach to the implementation of share buybacks.


**Manufacturing Capital**



**Capital investments** **¥30.0 billion**

(In the three years of our medium-term business plan, Stage I)

### Creating a business foundation using our advanced technologies and expertise

- ▶ We are grasping market needs and making continuous investments so that we can continue to create products required by the times. (Example: Increasing production capacity for our pharmaceutical additive NISSO HPC, creating manufacturing facilities for new proprietary developed agrochemicals, creating manufacturing facility for samples of new functional polymers, etc.)

Through research into production technologies, the design and improvement of manufacturing processes, and collaboration with Group companies who possess advanced plant engineering technologies, we are working to reinforce the competitiveness of our products.

We have set up technological research buildings at our two core plants—the Nihongi Plant and the Takaoka Plant—and by bringing together our testing facilities, research personnel, and other manufacturing capital, we are working to enhance the synergy between our production technology-related expertise and know-how, and boost operational efficiency. In doing so, we are aiming to shorten the time it takes to launch new products to market and achieve mass production, and improve cost competitiveness by reducing production costs. Ultimately, the aim is to shift toward highly efficient manufacturing hubs and improve our corporate value.


**Intellectual Capital**



**Owned patents** **2,037**

(FY 2022; non-consolidated)

**R&D costs** **¥5.84 billion**


(FY 2022)


### Advancing core technologies

- ▶ Our strengths lie in synthesis technologies, biological research, safety research, and formulation technologies for agrochemicals; polymer technologies that support the sophistication of ICT; and production technologies that support efficient, stable production activities.
- ▶ Our aim is to advance our core technologies through open innovation and digital transformation (DX).

We are targeting three new domains in which to set up new businesses so that we can achieve a sustainable society: Food (food tech), Healthcare (healthcare for people and animals), and Advanced Materials (next-generation ICT materials/carbon neutrality). By enhancing our proprietary technologies, combining our proprietary technologies, and introducing state-of-the-art technologies, we will aim to create new value in these domains.

Meanwhile, we are currently working to advance our core technologies through open innovation with external organizations in industry and academia, and through the establishment of a co-creation and research facility where we can engage in joint development with our customers. Further, we are carrying out investments to help fund material tech startups that are still in the so-called seed stage.


**Human Capital**



**Consolidated no. of employees** **2,785**

(FY 2022)

**Average length of service** **20 years**

(FY 2022; non-consolidated)

**Paid leave usage rate** **71.6%**

(FY 2022; 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 strengths can flourish and maximize their capabilities.

We are promoting the creation of workplaces where employees can flourish with a sense of fulfillment, while working to boost motivation for each individual and revitalize their respective organizations. We also promote diversity management so that we can ensure sustainable development, building environments where employees with diverse values can maximize their capabilities regardless of their gender, age, nationality, ability or disability, or whether they are new graduates or mid-career hires.

We are also focusing on personnel development for the next generation. One such example is our opening of the experience-based Nisso Technical Training Center, where we are striving to transfer manufacturing technologies and expertise that cannot be learned at a desk. In this way, we are developing personnel who can manage the operation of safe, highly efficient manufacturing sites.


**Social Capital**



**Overseas sales ratio** **39.2%**

(FY 2022)

### Expanding overseas businesses and promoting sustainable procurement

- ▶ By creating partnerships across the world and collaborating with industry and academia, we are developing cutting-edge, innovative technologies in niche fields.
- ▶ As a member of international society, we are aiming to create a sustainable supply chain that is environment- and society-friendly.

As we aim to expand our overseas businesses, in the Agro Products Business we are working with local staff at our overseas hubs to ascertain market trends in each region. For pharmaceutical additives, meanwhile, we are dispatching technical and other staff to our business hubs in the US, Europe, and India where demand continues to grow. At the same time, we are engaged in joint research with organizations in industry and academia across the world, and using open innovation facilities to work with our customers and enhance our technical services.

For the procurement of raw materials, we make sure to monitor our suppliers from a sustainability standpoint, and are working to build a society- and environment-friendly supply chain.


**Natural Capital**



**Energy consumption (crude oil equivalent)** **93.0 ML**

(FY 2022; non-consolidated)

**Water usage** **17.6 million tons**

(FY 2022; 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.

Through Responsible Care activities, at the Nippon Soda Group we strive to minimize the impact our chemical products have on the environment in every process from development and manufacture to distribution, use, final consumption, waste, and recycling. In addition to reducing our environmental impact by replacing our manufacturing processes and equipment with those that use fewer resources and less energy, we are also working to reduce GHG emissions, a challenge we share with international society.

Further, 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—DNA of Nippon Soda

### Nippon Soda's Unchanging DNA—A 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 regards 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 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, the factory manager and I 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.

### Using the Power of Chemistry to Provide Value Ideally Suited to Customer Needs

Hydroxypropyl cellulose (HPC), which is used as a binder to form pharmaceutical tablets, boasts wide-ranging support both in Japan and overseas for its outstanding safety and functionality. In the 1960s, Japan relied on imports of HPC, but as pharmaceutical companies placed great importance on stable quality and supply, calls grew for domestically produced HPC. In response to these needs, we undertook development of NISSO HPC, and commenced sales in 1969. Since featuring in the Japanese Pharmacopoeia in 1971, thanks to the product's excellent quality and our discovery of customers' latent needs through thorough communication, sales volumes have risen, and we have been able to gradually expand our product supply structure. In 2005, the product was registered as a food additive in Japan, and we extended its applications from pharmaceuticals to health food products such as supplements. Further, through collaboration with staff at our overseas hubs, we have been able to reinforce our global technical service system. Through communication of the latest technological data in frontier fields, the product continues to see remarkable growth in global niche markets. Looking ahead, using the power of our world-leading technologies, quality, and human resources, we will continue working to provide outstanding value.





## Strengths That Support Our Value Creation

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

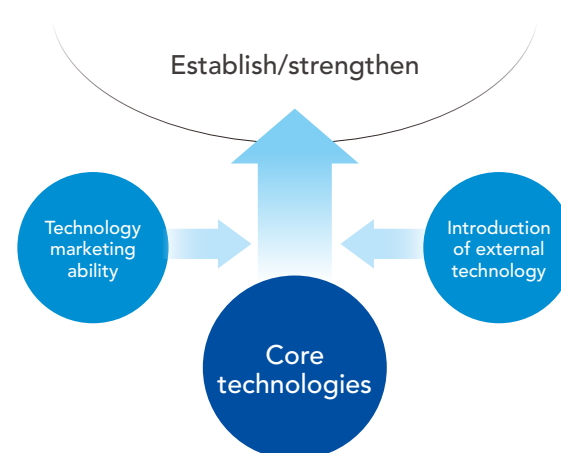


### Understanding Market Needs

#### 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.

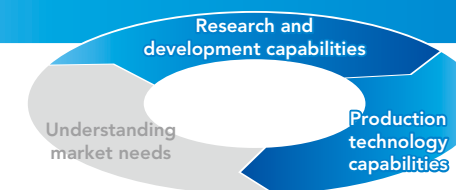
By collecting information from various chemical markets, analyzing technological trends in each field, and examining solutions that cater to needs brought about by social change, we are unearthing new possibilities while staying alert to trends in even more areas. For example, we examine whether or not there are any aspects of commercially available products that can be substituted by the Group's technology. 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.



#### Understanding Market Needs through Attentive Response

The Cellulose Technical Application Center (CTAC), which we opened inside the Chiba Research Center in October 2019, functions as a facility for creative collaboration alongside our customers. In addition to offering technical seminars and live online training programs at CTAC, we also respond to diverse requests for our products, including NISSO HPC.

At the Nippon Soda Group, be it at CTAC or any other facility or situation, we carefully listen to our customers to understand market needs while ensuring attentive customer response. We are linking these efforts to the development of new solutions. Ultimately, it is enhanced communication with our customers and the creation of trustworthy relationships that leads to the further evolution of our products.



### 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  |
|--|--|--|
| <b>Development of a new porous material with a metal-organic framework (MOF)</b><br>(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) | <ul style="list-style-type: none"> <li>▶ We hope to be able to mass-produce MOF materials that could be used in hydrogen gas tanks and other clean energy options</li> <li>▶ We are currently promoting industrial applications</li> </ul>   | Synthesis technologies accumulated through our development of agrochemicals, and production technologies |
| <b>Development of a platinum-tungsten solid solution alloy nanoparticles</b><br>(Joint research with Prof. Hiroshi Kitagawa and his research team from the Graduate School of Science, Kyoto University)   | <ul style="list-style-type: none"> <li>▶ 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</li> <li>▶ We are currently engaged in efforts aimed at social implementation</li> </ul>     | Processing technologies to particulate and dispersed metals  |
| <b>Development of a new compound for thermally activated delayed fluorescence (TADF) material, a next-generation organic electroluminescence material</b><br>(Joint development with Kyulux, Inc.)   | <ul style="list-style-type: none"> <li>▶ Kyulux, Inc. has enhanced the performance and quality of its TADF material, and greatly improved production efficiency of the new compound</li> <li>▶ The compound will help us gain a foothold in the organic electroluminescent display business</li> </ul> | Long-accumulated, advanced organic material development capabilities and synthesis know-how              |

COLUMN

#### Early Development of New Products and More Efficient Production Processes Using AI and Other Digital Technologies

We are currently using artificial intelligence and machine learning to enhance the efficiency of our research and development and speed up our development of new products. We are also moving forward with digital transformations to ensure even safer, more stable production.

In research and development, our AI working group is leading efforts to reinforce our data science capabilities and introduce materials and process informatics. In doing so, the aim is to create a structure that facilitates even more efficient R&D.

In production technology, we are working to streamline work processes, reduce labor, and create mechanisms for safe, stable operations. We are also developing AI-proficient personnel who can lead these efforts. In the future, the aim is to further streamline production and reduce the manpower required.



## Message from the President

Achieving Powerful,  
Flexible Growth across  
the Next Century to Bring About  
a Sustainable Society and  
Sustainable Development

Eiji Aga

Representative Director, President

### Solidifying Our Foundations to Improve 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, we have formulated a roadmap comprising three medium-term business plans (Stages I to III) and we are gradually moving forward with the relevant initiatives. We have positioned Stage I as the first step toward achieving our long-term vision and are working to solidify our foundations to improve corporate value. For the three-year period of Stage I (FY 2021–FY 2023), we are placing particular focus on three areas: (1) the liquidation of unprofitable businesses; (2) the expansion of overseas business centered on agricultural and pharmaceutical additives; and (3) the cultivation and establishment of core technologies.

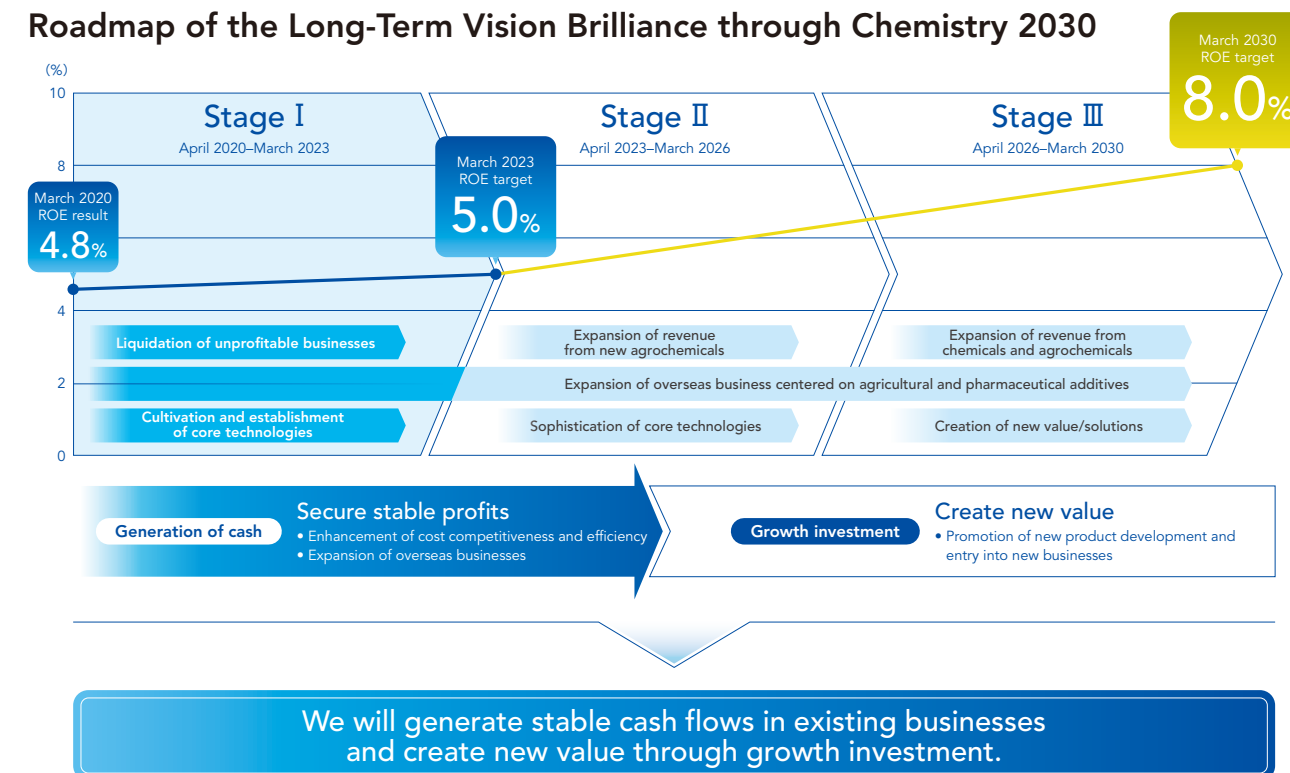
For the liquidation of our unprofitable businesses, we have withdrawn from the electrolysis business related to caustic potash—a sector we have operated since 1929 at the Nihongi Plant—and will only continue sales of caustic potash, potassium carbonate, and other related products for as long as inventory lasts. This structural reform no doubt caused mixed feelings among employees on the frontline, and for me personally it was an agonizing decision. Fortunately though, increased production capacity for our pharmaceutical additive NISSO HPC and the new construction of a mass-production plant for our new fungicide MIGIWA (ipflufenquin) have ensured that our portfolio shift has started well. Now and again, investors ask us whether we are being hindered by a conglomerate discount due to the number of businesses we operate relative to the scale of our organization. However, we believe that operating multiple highly profitable and competitive growth businesses can play a major role in improving corporate value in today's era of uncertainty. As such, we will continue with our strategy of liquidating our unprofitable segments and pouring our resources into the expansion of high-added-value businesses.

Our efforts to expand our overseas businesses are centered on agrochemicals and pharmaceutical additives. In agrochemicals, our main insecticide MOSPILAN (acetamiprid) is seeing significant sales growth, thanks to the expiration of

### Progress and Achievements of Long-term Vision Stage I

It has now been one year since I assumed the role of representative director and president in April 2021. In addition to the prolonged effects of the pandemic, our business environment has been impacted by Russia's invasion of Ukraine and also by economic friction between the US and China, and as a result the future remains uncertain. Despite these extraordinary 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). Thanks to our resolve to come together and overcome these crises in the face of uncertainty, in FY 2022 net sales totaled ¥152.5 billion (up 9.5% year on year), operating profit came to ¥11.9 billion (up 19.5% year on year), ordinary profit stood at ¥16.5 billion (up 29.6% year on year), and net profit was ¥12.7 billion (up 72.3% year on year). External factors such as a weak yen helped drive this success, and while results may have exceeded our actual capabilities, I also believe that our repeated communication to employees of the significance and purpose of our long-term vision and medium-term business plan contributed to these excellent achievements.

### Roadmap of the Long-Term Vision Brilliance through Chemistry 2030





## Message from the President

registrations, and restrictions on the use, of competing products in Europe. Moreover, due to its minimal environmental impact, MOSIPLAN (acetamiprid) was assessed for re-registration in the EU, and its validity was extended to 2033. As such, we believe the product will maintain its superiority for years to come. Among our other efforts to expand our overseas businesses, in India we acquired shares of the agrochemical manufacturing and sales company Bharat Certis Agriscience Ltd. In addition to promoting sales of existing agrochemicals, our aim is to begin sales of new agrochemicals in a few years' time. We are also focusing on increasing sales and overseas expansion of the three new agrochemicals we have recently launched to market—the fungicide PYTHILOCK (picarbutrazox), the acaricide DANYOTE (acynonapyr), and the fungicide MIGIWA (ipflufenquin)—and look forward to their future growth. For our pharmaceutical additives, we are working on global expansion of NISSO HPC and are making faster-than-expected progress. Although we completed work to increase production capacity for NISSO HPC in July 2021, strong demand has seen sales grow quicker than we expected, mainly for export, and so we are examining further work to increase production capacity. Further, as one measure to expand peripheral businesses, we purchased a business in sodium stearyl fumarate (SSF), which is used as a lubricant in the manufacture of pharmaceutical tablets. Using this alongside NISSO HPC will allow us to formulate tablets with active ingredients that are difficult to mold. In the future, we hope to make use of the synergy between these two products in various pharmaceutical tablets.

Among our efforts to cultivate and establish core technologies, we are implementing strategies to develop personnel who can learn, use, and promote the latest technologies, as we aim to drive the digitalization of our research and development processes, by making use of materials informatics\* and other data science approaches. Among our new initiatives, in line with the Sustainable Food Systems Strategy "MeaDRI" put together by the Ministry of Agriculture, Forestry and Fisheries, we are exploring the use of reduced-risk agrochemicals, developing biopesticides and biostimulants, examining compatibility with drone-based applications, and taking on other cutting-edge projects.

Looking ahead, we will work to create new value in the four fields we have identified as materialities—agriculture, healthcare, the environment, and ICT—and in turn contribute to solving social issues and increasing corporate value. [▶ For more details, see P. 22–23](#)

Our management targets for FY 2030, the final year of our long-term vision, are as follows: Achieve more than 10% in ROS (operating profit on sales), more than 7% in ROA (operating profit on assets), and more than 8% in ROE (return on equity). In FY 2022, we achieved our target of more than 8% in ROE with 8.4%, but this figure minus extraordinary income from the exchange of subsidiaries' and affiliates' stock was 7.2%. Further, at 7.8% and 5.0% respectively, we are making steady progress toward our targets for ROS and ROA. Regarding shareholder returns, we achieved a dividend payout ratio of 39.6% with an annual dividend of ¥180 per share. Further, we purchased ¥5 billion and ¥2 billion of treasury shares in 2020 and 2021, respectively, and will continue to do so as a means to supplement our shareholder returns.

In the Chemicals Business, sales increased in fine chemicals, pharmaceuticals, industrial fungicides, industrial chemicals, and specialty chemicals. In fine chemicals, sales increased thanks to growth in color developers for thermal paper and specialty isocyanates. In pharmaceuticals and industrial fungicides, we saw an increase in sales of NISSO HPC and pharmaceutical ingredients. For industrial chemicals, although sales of caustic potash fell due to structural reform, overall sales increased thanks to growth in caustic soda and rising sales prices of phosphorous chloride brought on by skyrocketing raw material prices. Meanwhile, sales also grew in specialty chemicals thanks to increases in VP-POLYMER, a semiconductor photoresist material, and the resin additive NISSO-PB. In the Agro Products Business, although exports of herbicides and fungicides decreased, an increase in exports of insecticides and



acaricides and sales of our new proprietary agrochemicals ensured that sales grew overall. In the Trading Business, we saw an increase in sales and profit thanks to growth in our organic and inorganic chemical products, nonferrous metals, urethane materials, and others. Our Transportation and Warehousing Business and Construction Business also performed strongly.

In FY 2023, we anticipate net sales of ¥162.0 billion, operating profit of ¥12.3 billion, ordinary profit of ¥16.5 billion, and net profit of ¥11.0 billion, while we are also planning for an annual dividend of ¥180 per share as in the previous year. We will continue to ensure appropriate shareholder returns in line with growth in profit.

\* A field of study in which informatics methods that utilize statistical analysis, etc., are used to search for new materials from a large amount of data

### Growth Strategies and Prospects for Our Future Vision

At the Nippon Soda Group, we celebrated our 100th anniversary in 2020. Ahead of the next 100 years, not only must we work to achieve our long-term vision, but it is also important that we look even further forward. To ensure our sustainable development and growth beyond FY 2030, which is the final year of our long-term vision, since 2021 we have continued work to enhance our research strategies. We are now targeting three new domains in which to set up new businesses and create new value so that we can achieve a sustainable society: Food (food tech), Healthcare (healthcare for people and animals), and Advanced Materials (next-generation ICT materials/carbon neutrality). Further, we have also begun a new employee training program to reinforce our technology marketing strategies. By improving our technology marketing capabilities, the aim is to create mechanisms whereby employees can independently propose their own themes. As one part of these efforts, in April 2022 we launched the New Business Planning and Development Department. By boosting our research strategies while incorporating objective viewpoints from consultants and other third parties, we will strive to create new businesses. [▶ For more details, see P. 33](#)

In creating new businesses, while there are no major issues regarding the in-house development of agro products, we believe that the development of chemical products requires proactive collaboration with external parties. While we will continue to place importance on our core technologies, we will not be able to achieve further growth without external influence, be it through M&As or industry-academia collaborations. Without relying on past achievements and by ridding ourselves of the idea that we are self-sufficient, we will promote various open innovation initiatives. Further, to make up for the reduction of our businesses due to structural reform, we will keep an eye on the



## Message from the President

proactive execution of M&As. When considering the need for synergy to expand our peripheral businesses, while M&As with Japanese companies might appear more beneficial, using my experience as one of the first resident employees when Nippon Soda purchased an overseas company, I hope to examine a range of other possibilities without limiting our scope to Japan. Moreover, while looking at both advantages and disadvantages, I will also do my best to learn from differences in operational approaches and corporate cultures.

We are also making progress with digital transformations as one business strategy to enhance our corporate value. In May 2022, we established a new production technology research building within the Nihongi Plant, installing the latest AI and computer-aided engineering facilities. In addition to examining optimal production models using computer simulations, the aim is to accumulate a range of technologies and expertise and apply them to our production sites. Meanwhile, as we aim to make use of materials informatics and other data science approaches, we are developing personnel who can learn and use the latest technologies and promote digitalization, and are digitalizing our research and development processes.



New research building, production technology research center, Nihongi Plant

### Building a Sustainable Management Foundation to Contribute to Society

At Nippon Soda, we hope to enhance our human capital to create social value and achieve sustainable management. My wish is that all Nippon Soda employees can think and act independently. Rather than acting mechanically—for example by simply repeating a process from the previous year—I would like each employee to take the initiative and think, no matter how unique their ideas are. The approaches and values behind personnel systems and employment today are completely different to those I used to regard as unexceptional. For example, the idea that it is entirely normal for domestic sales staff to constantly relocate without their family would not be accepted in today's society. At Nippon Soda, recently we have taken on the challenge of hiring individuals from completely different backgrounds, be it athletes or senior personnel with the skills and experience that we lack. I believe establishing environments and organizations that value diversity and allow diverse personnel to work while maximizing their capabilities are key to the generation of new innovations.

Moreover, as a result of our efforts to maintain and improve employees' health, we have been recognized as a White 500 company for outstanding health and productivity management for five consecutive years. Meanwhile, in April 2022 we established the Health Management Promotion Section to further improve and establish health awareness among Nippon Soda Group employees. We have also adopted unassigned seating plans at the Head Office and set up free spaces to enhance dialogue among employees and provide opportunities for employees to share their values. In the future, we anticipate that working two concurrent jobs and other diverse workstyles will become the norm, and so we will look to incorporate a wide range of employment types such as work-from-home systems and fixed-location employment. By creating personnel systems that support diverse workstyles, we hope to be able to welcome personnel from the IT and DX sectors, where recruitment has traditionally been a challenge.

We are also working to sophisticate our governance as part of our efforts to reinforce our management foundation. Personally, as chair of the Board of Directors, I am placing particular emphasis on ensuring open communication among board members, including our outside directors. To ensure the thorough sharing of

information, we have outside directors and full-time Audit and Supervisory Board members participate in Management Council meetings to offer their opinions on various matters. Following an evaluation of the effectiveness of the Board of Directors by an external organization, however, it was discovered that certain information was not shared with outside directors when they could not attend Management Council meetings, and so we have taken steps to address this issue by recording Management Council meetings and distributing the videos to our outside directors.

As a manufacturer of chemical products, we recognize that the creation of a sound material-cycle society is an important challenge. As such, we have joined the Carbon Neutrality Action Plan led independently by the Japan Business Federation (Keidanren), and we are introducing energy-efficient and energy-saving equipment, as well as taking energy-saving measures, to achieve targets for the reduction of CO<sub>2</sub> emissions. We have also launched a logistics improvement project, reviewing logistics within our worksites and shortening lines of flow to reduce the amount of energy we use. Further, we use the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas (GHG) Emissions Throughout the Supply Chain to calculate GHG emissions from our business activities (Scopes 1 and 2) as well as indirect emissions from outside our business activities (Scope 3) to reduce emissions throughout the supply chain.

In research and development, through an industry-academia project with Rikkyo University, we have used our proprietary technologies to develop a metal organic framework (MOF) that can selectively adsorb CO<sub>2</sub>. As the newly developed MOF can store hydrogen molecules, we are looking at applying it to highly safe hydrogen storage cylinder. This newly developed MOF also has the potential to spread and promote the use of fuel cell vehicles. Elsewhere, our Group company Nisso Metallochemical Co., Ltd. is contributing to the creation of a sound material-cycle society through its recycling business. As we have achieved growth through our Responsible Care foundation, our desire to operate businesses that make major contributions to society will remain unchanged.

### An Ever-growing Company That Is Widely Trusted by Society

To date, we have strived to conduct environmentally friendly business activities while responding to the expectations and trust placed in us by our shareholders, business partners, employees, communities, and various other stakeholders.

While we expect to see continued, drastic change in our social environment, our mission to contribute to society will remain constant, and we will make every effort to improve our corporate value. To do so, we will provide excellent products that contribute to society, implement business reform, and expand our high-added-value businesses. Developing a free and open organizational culture that enables employees to take on change is one of the most important roles for management. As a company that advocates social contributions, we will make steadfast efforts for the next 100 years. Looking ahead, we will make steady forward progress while steadily implementing the necessary initiatives to ensure we continue to be an organization that is indispensable to society.

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



# Medium-Term Business Plan: Brilliance through Chemistry Stage I —Progress and Achievements

Our medium-term business plan, Stage I is the first step in our ten-year, long-term vision, Brilliance through Chemistry 2030. We are currently moving forward with efforts to solidify our foundation so that we can continue to improve our corporate value.

## Basic Targets

|                     |                           | FY 2020 results | Medium-Term Business Plan Stage I (FY 2021-FY 2023) |                 |                                       |  | Long-Term Vision KPI (FY 2030) |
|---------------------|---------------------------|-----------------|---|-----------------|---------------------------------------|--|--------------------------------|
|                     |                           |                 | FY 2021 results                                     | FY 2022 results | FY 2023 forecast (Announced May 2022) | FY 2023 forecast (At the time of plan formulation) |                                |
| Net sales           | (Billions of yen)         | 144.74          | 139.36  | 152.54          | 162.0                                 |  |                                |
| Operating profit    | (Billions of yen)         | 8.14            | 9.98  | 11.93           | 12.3                                  |  |                                |
| Profit              | (Billions of yen)         | 6.76            | 7.36  | 12.68           | 11.0                                  | 7.0  |                                |
| Capital investment  | (Billions of yen)         | 8.82            | 7.72  | 13.11           | 14.0                                  | 30.0 in 3 years                                    |                                |
| Shareholder returns | (Dividend payout ratio %) | 35.7%           | 43.1%   | 39.6%           | 45.6%                                 | 40%  |                                |
|                     | (Dividend ¥)              | ¥80             | ¥110  | ¥180            | ¥180                                  | Minimum of ¥80                                     |                                |
| ROE                 | (%)                       | 4.8%            | 5.1%  | 8.4%*           |                                       | 5%   | 8% or more                     |
| ROS                 | (%)                       | 5.6%            | 7.2%  | 7.8%            |                                       |  | 10% or more                    |
| ROA                 | (%)                       | 3.8%            | 4.6%  | 5.0%            |                                       |  | 7% or more                     |
| Invested capital    | (Billions of yen)         | 171.15          | 188.29  | 202.62          |                                       |  |                                |
|                     | (Times)                   | 0.8 times       | 0.8 times   | 0.8 times       |                                       |  |                                |
| Pre-tax ROIC        | (%)                       | 4.8%            | 5.3%  | 5.9%            |                                       |  |                                |

\*ROE excluding transient extraordinary income of ¥1.76 billion: 7.2%

Our basic goals include expansion of high-added-value businesses, improvement of asset efficiency, and promotion of a proactive capital policy that emphasizes a balance between growth investments and shareholder returns.

With respect to the expansion of high-added-value businesses, each of our growth driver products have been performing solidly. In addition, as positive factors not incorporated in the plan, sales of the insecticide MOSPILAN (acetamiprid) expanded in Europe, and the Japanese yen kept weakening against the other major currencies.

As a result, profit attributable to owners of parent and ROE have already exceeded the targets for FY 2023, the final year of the medium-term business plan.

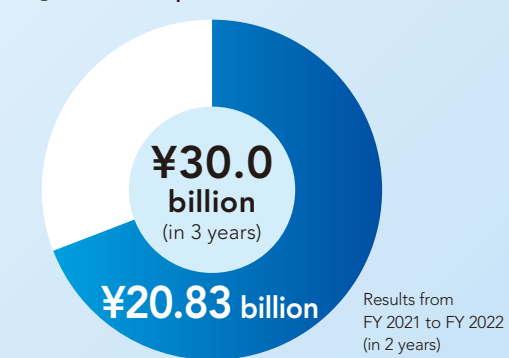
To improve asset efficiency, we have liquidated unprofitable businesses in the chemicals segment. In addition, the Company is continuing to reduce its cross-held shares.

With regard to growth investments and shareholder returns, we have decided to execute capital investments of ¥30 billion over the three years, and investments in growth businesses that will enhance our ability to generate cash flows are progressing according to the plan.

In addition, the Company paid dividends in line with its dividend payout ratio target of 40%, and flexibly implemented share buybacks.

## Capital Policy

### Progress of capital investment



In terms of capital investments, the medium-term business plan calls for two major growth investments plans: the expansion of the production facility for the pharmaceutical additive NISSO HPC, and the construction of the mass production facility for the new fungicide MIGIWA (ipflufenquin).

The expansion of the production facility for the pharmaceutical additive NISSO HPC was completed in July 2021, contributing significantly to the sales expansion of this product.

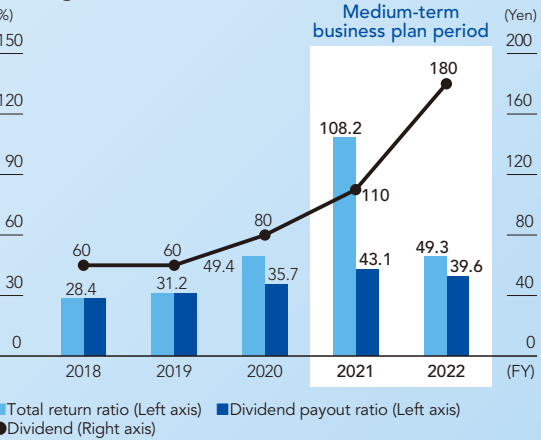
We plan to complete the mass production facility for the fungicide MIGIWA (ipflufenquin) by the end of FY 2023. The fungicide MIGIWA (ipflufenquin) is currently sold only in Japan, but we have already registered it in the US and will start overseas sales as soon as the mass production facility is up and running.

Due to the two large-scale capital investment plans, the amount of capital investments has increased in the medium-term business plan. However, the amount is expected to decrease significantly from FY 2024 onward in line with the standstill of the large-scale capital investments and a pause in investments in maintenance and renewal.

With respect to shareholder returns, the Company has targeted a dividend payout ratio of 40% during the period of the medium-term business plan and has continued to increase dividends in line with earnings growth.

The Company also bought back its own shares worth ¥5 billion in 2020 and ¥2 billion in 2021, and in both cases, canceled all acquired shares.

### Changes in shareholder returns



## Key Strategies

| Themes                       | Liquidation of unprofitable businesses  | Further expansion of growth businesses  |  |   |   |   |   |  | Development and establishment of core businesses |
|------------------------------|---|---|--|---|---|---|---|--|--|
| Initiatives and Achievements | <b>Structural reforms in the caustic potash and peripheral business</b><br>Withdrew electrolysis businesses related to caustic potash at the Nihongi Plant located in Niigata Prefecture which is one of our main plants. | <b>Fungicide PYTHILOCK (picarbutrazox)</b><br>(Launched in Japan and South Korea in 2017 and in the US in 2021)<br>Registered as a new seed treatment agent in the US and Canada (July 2021).       | <b>Acaricide DANYOTE</b><br>(Launched in Japan in 2020, and in South Korea in 2021)<br>Speed of sales growth exceeded expectations. Under development in the US and other countries. | <b>Fungicide MIGIWA (ipflufenquin)</b><br>(Launched in Japan in 2021, and planning to launch in the US in 2023)<br>Recognized as a Reduced Risk Pesticide in the US. Achieved early registration as in Japan. | <b>Investment in BHARAT CERTIS AGRISCIENCE, an Indian agrochemical manufacturing and sales company</b><br>Sell our products using our trademarks. | <b>Reinforced production facilities for pharmaceutical additive NISSO HPC</b><br>Completed work to increase production capacity in July 2021. | <b>Commercialized new functional polymer</b><br>Began sales of new functional polymer liquid 1,2-SBS. | In line with market needs and changes in social environments, we are working to evolve many of our core technologies. <ul style="list-style-type: none"><li>Development of next-generation electroluminescence organic compound</li><li>Selective adsorption of carbon dioxide</li><li>Development of new porous material</li><li>Progression to next phase of agrochemical pipeline</li></ul> |  |
| Future Activities            | Shift to a highly profitable business portfolio through drastic swap of manufactured products.  | Aim for approx. ¥3 billion in net sales in FY 2023 and proceed with sales expansion as planned. Continue to grow sales in line with our ¥10 billion in net sales target for the foreseeable future. |  |   | Plan to launch three new agrochemicals in several years' time.  | Begin examining next stage of work to increase production capacity in response to strong demand.  | Reinforce sales for use in materials for 5G communications devices.                                   | For more details, see P. 12-13   |  |



# Materialities at the Nippon Soda Group



Agriculture

## Securing food and achieving sustainable agriculture



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. 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 communications technology (ICT) and other technologies to support labor-saving pest control work and the production of high-quality crops.

### Achieving Sustainable Agriculture

In order to secure crops for food and feed to meet the demands of an increasing population, and due to an aging farming population and worker shortages, the introduction of smart agriculture\* and the development of safe agrochemicals is essential. In Japan, where multiple crops are cultivated together on a small field, the use of different agrochemicals increases workloads and costs. At the Nippon Soda Group, we are promoting the registration of single agrochemicals that can be used for a variety of crops to make spraying more efficient.

Further, in line with the Sustainable Food Systems Strategy "MeaDRI" put together by the Ministry of Agriculture, Forestry and Fisheries, we are moving forward with the development of reduced risk pesticides and formulations suited to drone-based application.

\* Modern agriculture that achieves labor savings and high-quality production through the use of robotics technology and ICT

### Continually Releasing New, Internally Developed Agrochemicals on the Market

The development of new agrochemicals requires more than ten years and vast investments. At the Nippon Soda Group, we successively launched three new proprietary agrochemicals between 2017 and 2021. Specifically, we launched the fungicide PYTHILOCK (picarbutrazox), the acaricide DANYOTE (acynonapyr), and the fungicide MIGIWA (ipfluenoquin) to market, and revenue continues to grow. MIGIWA (ipfluenoquin) has already been registered in the US, and we are aiming for market launch in FY 2024. Elsewhere, we have applied for registration in Europe, and following completion and the commencement of operations at the new mass-production facility at our Nihongi Plant (Joetsu City, Niigata Prefecture), which is scheduled for the end of FY 2023, we plan to successively launch MIGIWA (ipfluenoquin) overseas in countries where it has been registered.

Further, we are also making progress with the development of new agrochemicals that can become new core products.

### Achieving Sound Resource Recycling and Sustainable Plant Protection

Our internally developed heavy metal fixative HIDION is mixed into fly ash; the heavy metal is immobilized, preventing lead and other heavy metals from scattering and liquating. HIDION is used at many waste incinerators and is highly regarded as an agent for reducing environmental burden. Also, Group company Nisso Metallochemical Co., Ltd. is contributing to the creation of a recycling-based society through its recycling business.

At the Nippon Soda Group, we work to conserve biodiversity through the protection of plants and forests. GREEN GUARD, an agent for preventing pine wilt, contributes to the greening of streets and parks, as well as landscape conservation. Additionally, we hold workshops on plant protection, mainly for local municipalities.

### Promoting Future Research and Development Themes

While enhancing our proprietary technologies and further sophisticating our core technologies, at the Nippon Soda Group we are driving the development of new products and the creation of new businesses. As one part of these efforts, we are working to generate synergy with external institutions in industry and academia to accelerate our research and development efforts. Further, to enable early commercialization of the new materials we have under development, in April 2022 we set up the New Business Planning and Development Department.

In an industry-academia collaborative project with Rikkyo University (a group led by Prof. Mao Minoura from the Chemistry Department of the College of Science), we successfully developed new materials with metal organic frameworks (MOFs). In this way, we are making progress with the development of new materials that have the potential for commercialization in the near future.

For more details, see P. 33



Environment

## Toward a resource recycling society



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. The Nippon Soda Group utilizes the water treatment technology, resource recycling technology, technology for removing heavy metals, 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 the beautiful, unique natural landscapes of Japan.



Healthcare

## Healthy lives to all people



In advanced nations, 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 nations as well due to improvement in living standards. 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.

### Improving Access to Healthcare

For the pharmaceutical additive NISSO HPC, we currently hold a nearly 100% share of the domestic market and around 30% overseas. In advanced countries, problems with social welfare costs and concerns about the sustainability of healthcare systems are leading to growing health consciousness and awareness of preventive medicine. In emerging nations, meanwhile, demand is growing for pharmaceuticals due to improvements in living standards. Against this backdrop, sales of NISSO HPC are expected to grow even further. To respond to this demand, in July 2021 we began operation and shipments from a new production line at our Nihongi Plant (Joetsu City, Niigata Prefecture), boosting our annual production capacity by 30%. We will continue to build a supply system that can cater to market needs.

### The Cellulose Technical Application Center, a Place for Creating Value alongside Customers

In order to demonstrate the superior performance of NISSO HPC, the Cellulose Technical Application Center (CTAC) was established in the Chiba Research Center in October 2019. As a facility for creative collaboration alongside our customers, CTAC boasts cutting-edge equipment that can perform everything from trials to analysis and evaluation, providing a platform for innovation to further improve the quality of pharmaceuticals. Moreover, we are hosting online technical seminars, offering live online training programs, and posting technical information videos that help to solve customers' issues on CTAC online.\*

Moving forward, by offering solutions to customers' diverse pharmaceutical additive needs through NISSO HPC and NISSO SSF, we will strive to expand sales over the medium to long term.

\*<https://www.nissoexcipients.com/hpc-e/ctac/>



ICT

## Applying the functionality of chemicals to IT devices



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.

The Nippon Soda Group uses its precision polymerization technology and organic synthesis technology to provide high-performance polymers for use in materials for next-generation 5G communications devices and photoresists for semiconductors. In order to meet the needs of future technological innovations, we are focusing on developing new materials for use in a wide range of fields.

### NISSO-PB for Next-Generation Communications

The need for remote work, teleconferencing, and online classes has suddenly increased due to the spread of COVID-19, and this change has resulted in a rapid increase in communication base stations and servers.

NISSO-PB, which boasts low dielectric properties and high heat resistance in high frequency domains, is utilized in the copper clad laminates in 5G communication equipment. At the Nippon Soda Group, we are working to reinforce our technical services to create demand not only in Japan, Europe and the US, but also in emerging markets.

The provision of high-functional materials to the information and electronics fields will continue to be an important theme, and we will focus on developing new materials and supporting technological innovation.

### New Material Using Proprietary Polymerization Technology

We have begun sales of the new functional polymer liquid 1,2-SBS (styrene-butadiene-styrene). Due to its excellent low dielectric constant properties and outstanding heat-, water-, and oil-resistant properties, we are working to strengthen sales for its use in advanced electronic materials such as those for 5G devices.

In addition to responding to the expansion of the information and communications fields, we are also developing a solid type as we anticipate the potential for further sales in synthetic rubbers and adhesives. Looking ahead, we will continue to develop new polymer materials that meet customer needs.



## Working to Achieve a Sustainable Society



Feature

# The Nippon Soda Group's Efforts to Reduce Its Environmental Impact

At the Nippon Soda Group, we understand that environmental problems are a major challenge facing society. As such, we have long been engaged in efforts to enhance technologies that can provide solutions to the issue.

Further, in addition to supplying low-carbon products, we have worked to increase our expertise by collaborating and promoting research with external institutions, aiming to acquire technologies that we believe are key for the social implementation of our solutions.

We are currently working on initiatives to provide various environmental solutions based on water processing technologies, resource recycling technologies, and heavy metal removal technologies.

As a group that has conducted operations with a focus on Responsible Care, our approach to improving corporate and social value is embedded into our management. Moving forward, as we seek to achieve a sustainable society, we will continue promoting environmentally friendly activities.

## Working Toward Carbon Neutrality

The Nippon Soda Group is participating in the Carbon Neutrality Action Plan put together by the Japan Business Federation (Keidanren) and is promoting efforts to reduce CO<sub>2</sub> emissions and save energy.

For example, we are working to improve our energy consumption rate by streamlining and increasing labor efficiency in our production processes and implementing energy-saving measures. Further, we have also launched a logistics improvement project, reviewing logistics processes within our worksites, and shortening lines of flow to reduce our energy consumption.

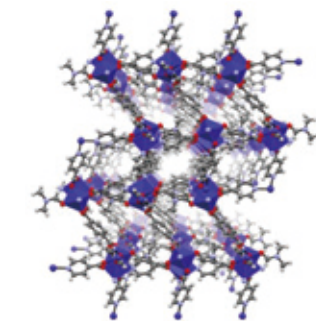
Looking ahead, while using the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas (GHG) Emissions Throughout the Supply Chain, as well as other guidelines, we will work to reduce CO<sub>2</sub> emissions across the value chain and continue with efforts to achieve carbon neutrality.

In R&D, using our proprietary technologies in an industry-academia collaborative project with Rikkyo University, we have developed a new functional porous material—a metal-organic framework (MOF). As MOFs can store hydrogen gas, we are planning to apply them to safe hydrogen gas storage materials, while we also believe they could help to spread and promote use of fuel cell vehicles.

We are also continuously engaged in efforts to reduce

environmental waste, and have achieved zero emissions\* for ten consecutive years. Meanwhile, through the recycling business of our Group company Nisso Metallochemical Co., Ltd., we are contributing to the creation of a sound material-cycle society.

\* We define "Zero emissions" as when the ratio of landfill waste is 2% or less compared to the amount transported to the industrial waste disposal facility.



Molecular structure diagram of MOF jointly developed by Rikkyo University and our Company

## Focusing on Development of Low-risk Agrochemicals and Biopesticides

In the Agro Products Business, mainly for chemical pesticides, we are promoting R&D and sales expansion initiatives for global markets. At the same time, however, recently we have seen a rise in environmental awareness across the globe, as well as trends for decreased use of agrochemicals and greater use of biopesticides in order to reduce negative impacts on ecosystems.

To respond to these new trends, we are working to reinforce our structure so that we can further our research into biopesticides, expand sales, and roll out smart agriculture solutions.

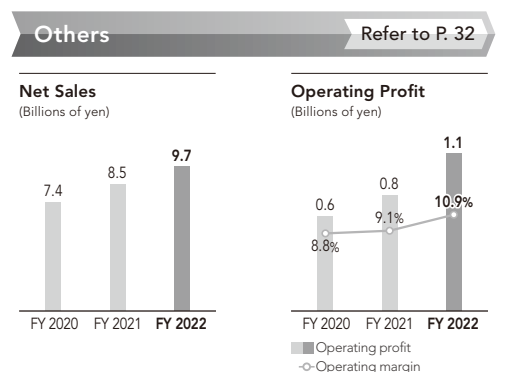
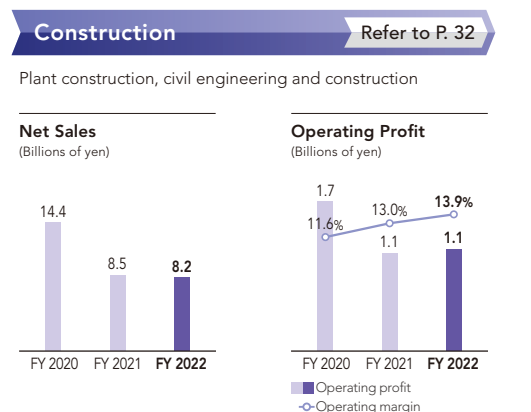
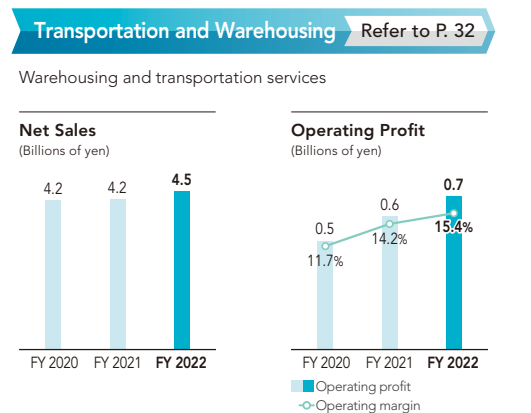
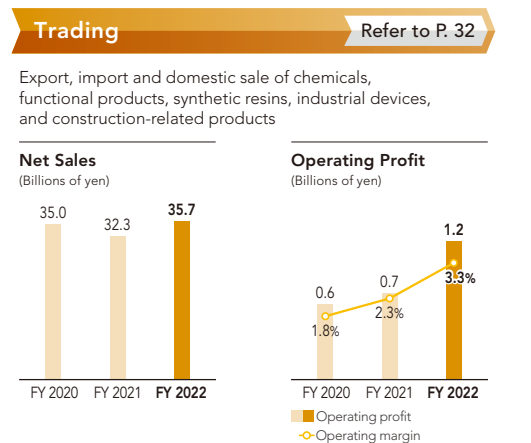
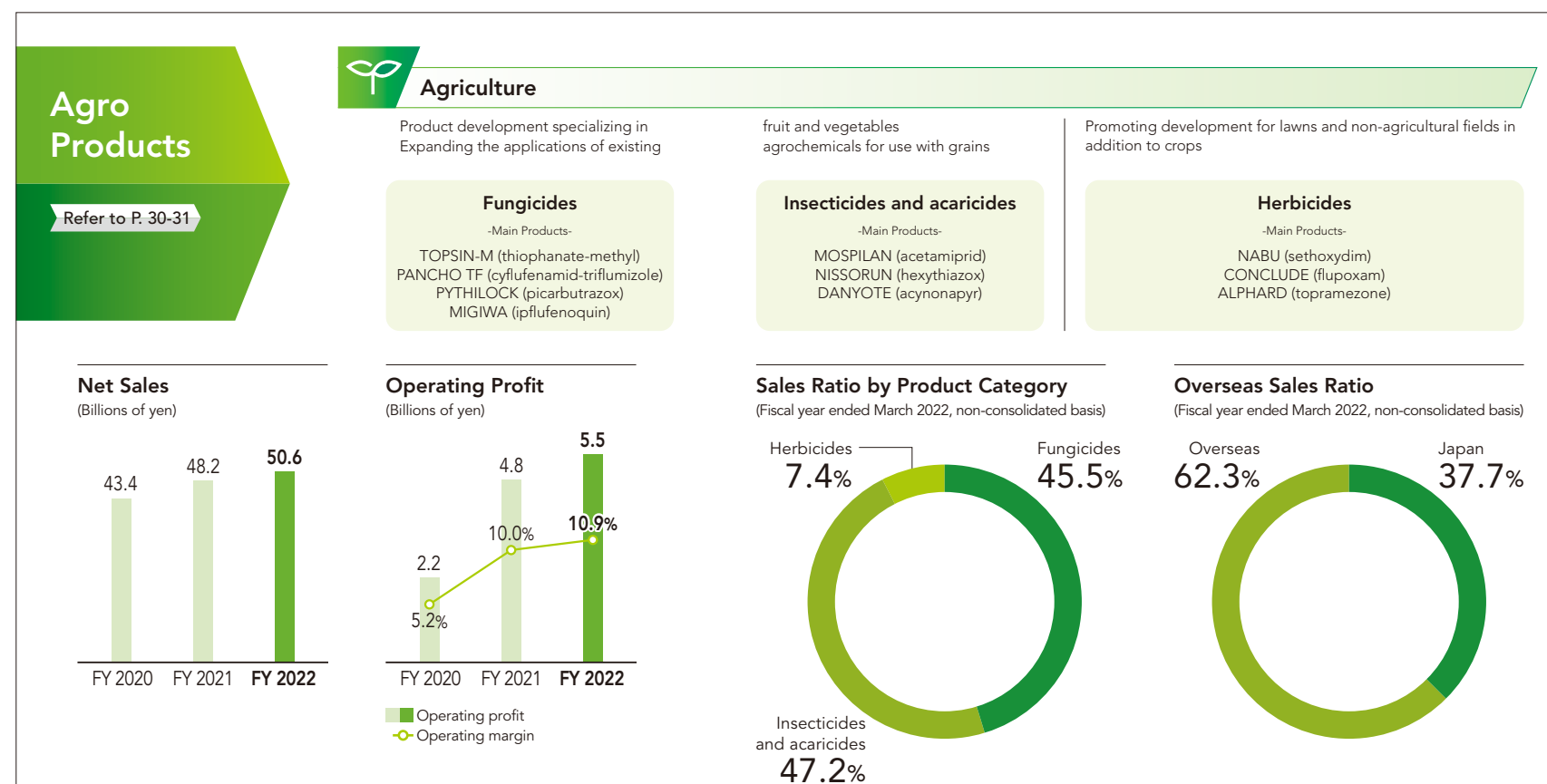
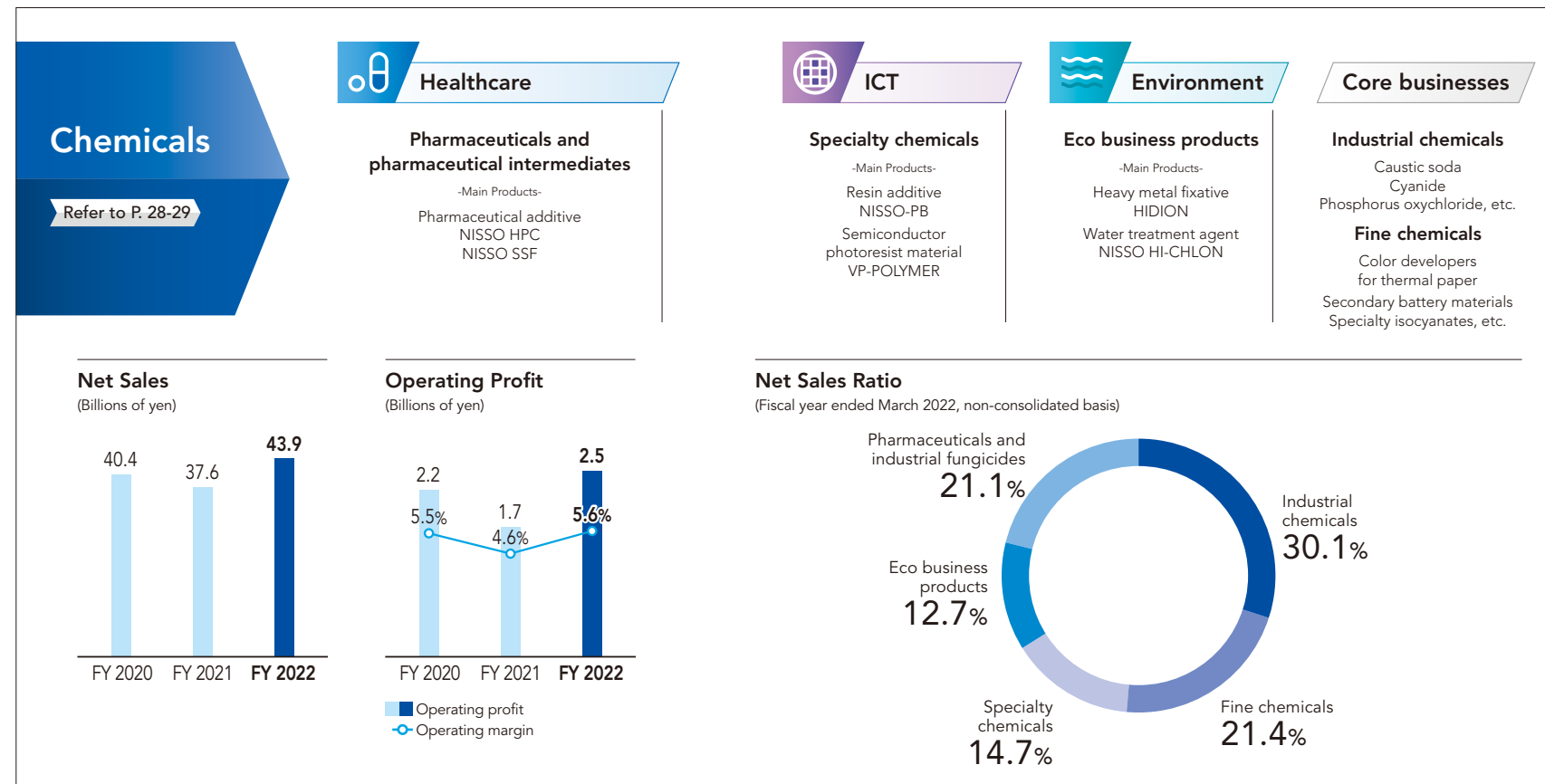
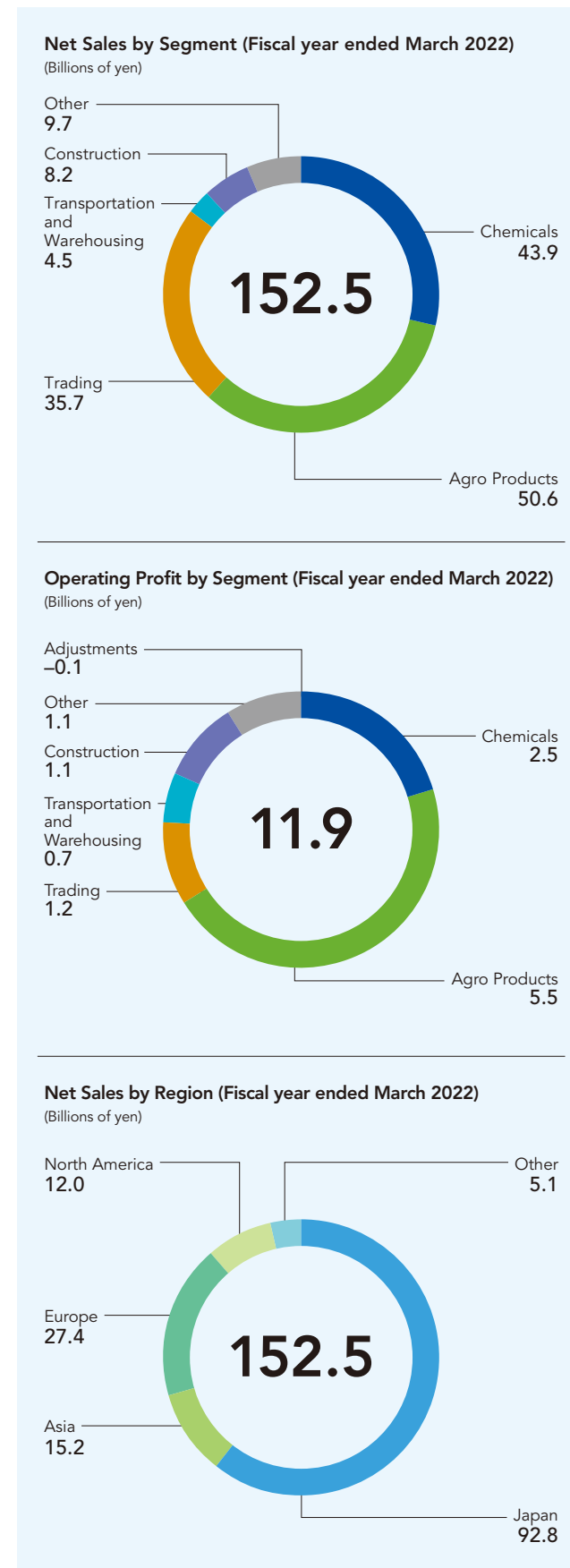
In Japan, in line with the Sustainable Food Systems Strategy "MeaDRI" put together by the Ministry of Agriculture, Forestry and Fisheries, we are investigating low-risk agrochemicals, developing biopesticides and biostimulants, expanding our integrated pest management, using ICT for drone-based pesticide application, and more.





# The Nippon Soda Group's Businesses

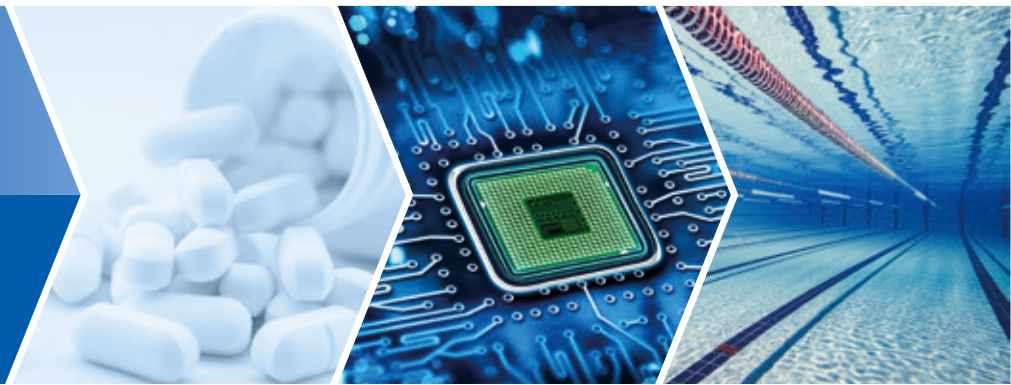
The Nippon Soda Group is a corporate group that uses chemistry to create superior products and services around the world, and contributes to the realization of a sound society. The Chemicals and Agro Products businesses are the core of the Group. They primarily involve the manufacture and sale of chemicals, and the provision of services.





The Nippon Soda Group's Businesses

# Chemicals



Health consciousness and interest in preventive healthcare are on the rise, yet at the same time we are facing such environmental issues as global warming and the creation of a recycling-based society. Progress in information and communication technologies that support the popularization of smart devices, etc., are becoming worldwide trends. In this environment, the Chemicals Business considers the materiality (important issues) of the market to be healthcare, environment, and ICT. By concentrating on offering the technologies and services that we have developed over many years in these fields, we can contribute to healthy living, help achieve environmentally sound recycling of resources, and innovate technology in the information and communication fields.



Healthcare

50 years of experience

Domestic top-level  
industry penetration rateOverseas sales  
ratio (volume): 64%

## ➤ NISSO HPC

Seeing it as a growth driver, we are currently working to advance our cellulose derivative business. For example, our pharmaceutical additive NISSO HPC is a derivative obtained by reacting propylene oxide with cellulose. It 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 provides high performance for pharmaceuticals through its binding force that increases the hardness of tablets, leading to the gradual, sustained release of active ingredients. For these reasons, it has been well recognized as an additive essential for the manufacture of pharmaceuticals. For example, its outstanding binding force can help to reduce tablet size, its excellent sustained release properties can reduce dose frequency, while it can also maintain the concentration of active ingredients in blood. In these and other ways, NISSO HPC offers outstanding performance in response to the issues facing customer applications. The Nippon Soda Group possesses manufacturing facilities and management systems that conform to very high-quality control standards. Our trust in quality is the brand power of NISSO HPC.

The worldwide market for pharmaceuticals is growing. In 2021, the worldwide market for pharmaceuticals grew 8% over the previous year. While NISSO HPC boasts the top-level industry penetration rate in Japan, demand is also increasing in Europe, North America, and also in the markets of emerging countries like India and China, where living standards continue to improve. By accelerating efforts to expand sales of NISSO HPC, bringing new pharmaceutical additives to markets, improving product performance, and offering support services for pharmaceutical formulation technologies, we will look to grow our business over the medium to long term.

Under the brand name CELNY, NISSO HPC is also seeing increased use in food product fields such as supplements. Thanks to its superior binding force, CELNY enables the formulation of tablets containing many natural ingredients, which typically are difficult to form. This means that the quantity and frequency of supplements that need to be taken can be reduced.

In July 2021, we completed work to increase production capacity at our Nihongi Plant (Joetsu City, Niigata Prefecture) to cater to growing demand for NISSO HPC. While this is helping to boost sales, demand

continues to grow, and so we have begun investigating another project to reinforce production capacity.

To further enhance the product's added value, in May 2020 we acquired a sodium stearyl fumarate (SSF) business. In the future, we expect to be able to combine use of NISSO HPC and SSF in an array of pharmaceutical tablets, and use this combination to create tablets from materials that are difficult to form, and increase tablet hardness.

Meanwhile, we have positioned the Cellulose Technical Application Center (CTAC) as a hands-on collaborative facility where we can work with customers to create new value for NISSO HPC, and we are also focusing on R&D as we aim to expand its applications. For example, we have developed 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.



The expanded Nihongi Plant



ICT

Proprietary living anionic  
polymerization technologySupply capabilities that respond  
to increasing demand

## ➤ 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 does not deteriorate much as it ages, and has various superior characteristics such as electrical properties, high heat resistance, chemical resistance, and water resistance. As such, it is used in adhesives, resin additives, and paint and coatings. Its demand as a resin modifier of printing materials for use in flexographic printing plates, which is expanding worldwide, is firm, and demand has recently

been increasing in the ICT field as a material for touch panels for smartphones and tablets and as an additive in copper clad laminates used in base stations for wireless communications.

Demand in the electronic materials field lies in communications technologies such as 5G. By accurately identifying needs in this field, we aim to have our materials adopted as the industry standard while creating new businesses.

## ➤ Semiconductor Photoresist Material VP-POLYMER

VP-POLYMER is a polymer derived from the living anionic polymerization technique used for NISSO-PB, and it is mainly used in KrF photoresist materials for semiconductors. As the need increases for larger-capacity and higher-speed semiconductors, demand is increasing for VP-POLYMER because of the transition from i-Line photoresists to KrF

photoresists and the popularization of 3D NAND memory. In 2018, construction to expand production capacity in the Chiba Plant (Ichihara City, Chiba Prefecture) was completed, providing a stable supply system. As a result, we were able to immediately respond to surging semiconductor demand, achieving record net profits in FY 2022.

## ➤ Functional Polymer Liquid 1,2-SBS

Our new functional polymer liquid 1,2-SBS (styrene-butadiene-styrene) boasts excellent low dielectric constant properties and outstanding heat-, water-, and oil-resistant properties, and we are working to acquire

a share of the market for materials for 5G devices and advanced electronic materials. We will continue working to provide new polymer materials to cater to customers' needs.



Environment

Proprietary dissolution rate  
control technology

Expansion of major products

## ➤ Developments in the Water Treatment Field

The Nippon Soda Group's environmental business started with agents for disinfecting and sterilizing water. In this field, one of the Nippon Soda Group's strengths is technology to control dissolution rate. This technology, which is the result of accumulated research, has much in common with that used for drug delivery systems (DDS)\* for pharmaceuticals. We have many examples of collaborative development of solutions for market needs that our partners, such as manufacturers and trading companies, pick up. 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 performance of wastewater treatment, 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 the environmental burden of industrial wastewater.

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/](https://www.nippon-soda.co.jp/e/fields_and_products/)



The Nippon Soda Group's Businesses

# Agro Products



As a result of the increase in meat demand due to worldwide population growth and economic growth, the need to improve the efficiency of the production of food and feed has become an issue. At the same time, there are concerns about an increase in crop pests caused by global warming. The Nippon Soda Group considers contributions to ensuring food safety and security and sustainable agriculture using agrochemicals as materiality (important issues), and will contribute to solving agricultural and food-related problems under the themes of increasing production of food and feed worldwide, diversifying crop protection, and improving safety for users of agrochemicals.



Agriculture

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

## Market Environment for Agrochemicals

Although the demand for food will increase with population growth, the amount of arable land remaining worldwide is limited. Therefore, the demand for agrochemicals that make it possible to ensure crop yields and reduce labor is expected to grow mid-to-long term. However, the barrier is high to bring products to the market that are safe and environmentally friendly to water, soil, etc., and various aspects must be considered from the research and development stage. As development costs of new agrochemicals increase due to stricter safety standards, one issue we must look at is how to compete or even 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. These are very niche markets with comparatively less competition with major overseas manufacturers and generic products, and there is no competition with genetically modified seed varieties. However, by expanding the application of existing products to the grain market, we intend to reduce the impact of costs 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 products.

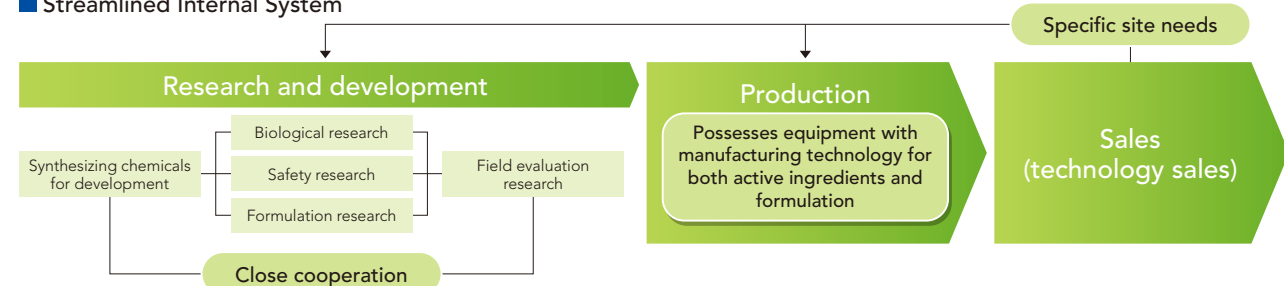
## The Value Chain and Our Strengths

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, we have created a highly efficient structure and a value chain that can be consistently managed within the Group, covering R&D, manufacturing, sales, and market research using customer feedback.

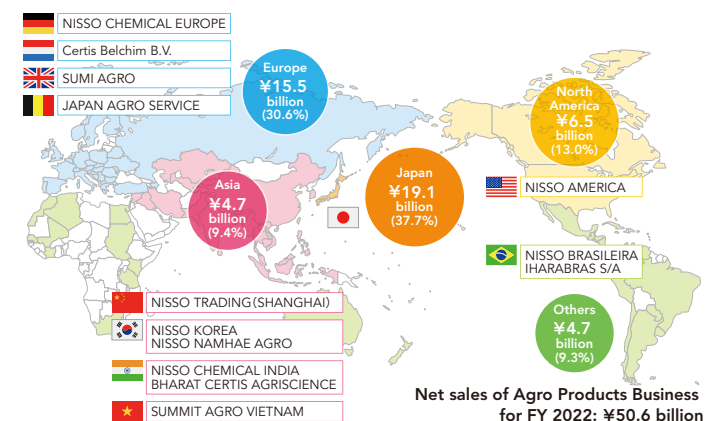
### Streamlined Internal System



## Promoting Global Expansion

The Nippon Soda Group started expanding overseas early on, and in FY 2022 the overseas sales ratio for the Agro Products Business reached about 62%. Because we are developing products specifically for fruit and vegetables, our sales ratio in 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. Industrias 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 countries in Asia such as China, Korea, India, and Vietnam as we aim to contribute to securing a higher food yield in the global market. In India, in FY 2021 we acquired shares in Bharat Certis Agriscience Ltd, a local manufacturer and distributor of agrochemicals. In addition to promoting sales of existing agrochemicals, we aim to begin sales of new agrochemicals in a few years' time.



## 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. For the frontlines of food production, we select potential compounds for use in new agrochemicals while placing top priority on excellent efficacy against pests that are causing problems or may pose a future problem with local food production, safety for useful organisms, low residual agricultural chemical content, and activity with a low dose.

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 examining ways to register agrochemicals for multiple crops in one go so as to reduce the burden on farmers.

Since 2017, in Japan we have commenced sales of the fungicide PYTHILOCK (picarbutrazox), the acaricide DANYOTE (acynonapyr), and the fungicide MIGIWA (ipflufenquin). In the near future, we will work to achieve ¥10.0 billion in sales through these three agents.

| Product name              | Classification | State of development / characteristics   | Launch |
|---------------------------|----------------|--|--------|
| PYTHILOCK (picarbutrazox) | Fungicide      | <ul style="list-style-type: none"> <li>New modes of action, effective against fungi that are resistant to existing fungicides</li> <li>On sale in Japan and South Korea, under development for vegetables for Europe and the US</li> <li>Conclusion of global licensing agreement with Syngenta, on sale in the US as a new seed treatment agent</li> <li>Registered in Canada in 2021</li> <li>Applications made for registration in the EU in 2021</li> </ul>                        | 2017   |
| DANYOTE (acynonapyr)      | Acaricide      | <ul style="list-style-type: none"> <li>New modes of action, and effective against resistant spider mites</li> <li>Immediate effectivity and low impact on beneficial insects</li> <li>On sale in Japan and Korea, applications made for registration in the US in 2021</li> </ul>  | 2020   |
| MIGIWA (ipflufenquin)     | Fungicide      | <ul style="list-style-type: none"> <li>New modes of action, effective against fungi that are resistant to existing fungicides</li> <li>Effective against a wide range of pests, expected to become a major fungicide</li> <li>Commenced domestic sales in 2021 (first to be selected for priority review)</li> <li>Registered in the US and applications made for registration in Europe in 2022</li> <li>Under development for Brazil, Asia, and other locations worldwide</li> </ul> | 2021   |

## Expanding Applications Based on Existing Agrochemicals

For our existing, main agrochemicals such as the fungicide TOPSIN-M (thiophanate-methyl) and insecticide MOSPILAN (acetamiprid), the spread of generic products has caused challenges in maintaining revenue. We will thus work to increase sales by expanding applications from fruits and vegetables to grains.

In differentiating TOPSIN-M (thiophanate-methyl) from generic products by developing a mix formulation, we will look to expand sales in the markets of emerging nations. 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 overseas, 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 | State of development / characteristics  | Launch |
|---|----------------|---|--------|
| TOPSIN-M (thiophanate-methyl)           | Fungicide      | <ul style="list-style-type: none"> <li>Become established in North and South America for soybeans</li> <li>Expand sales in the markets of emerging nations, particularly for paddy rice in Asia</li> <li>Differentiation from generic products by developing mix formulations</li> </ul>  | 1971   |
| NISSORUN (hexythiazox)                  | Acaricide      | <ul style="list-style-type: none"> <li>Consistent performance with corn and nuts in the US</li> <li>Expand sales of fruit, vegetables, and tea in India</li> </ul>  | 1985   |
| MOSPILAN (acetamiprid)                  | Insecticide    | <ul style="list-style-type: none"> <li>Expand sales of mix formulations for soybeans and corn in Brazil</li> <li>Currently expanding sales as an alternative to competitive products in Europe</li> <li>Increasing sales opportunities because of use restrictions of competitive products</li> <li>Passed re-registration assessment for active ingredients in the EU, extended registration until 2033</li> </ul> | 1995   |
| PANCHO TF (cyflufenamid-trifluzimazole) | Fungicide      | <ul style="list-style-type: none"> <li>Consistent performance in Europe for fruit, vegetables, and wheat</li> <li>Expand application to fruit and vegetables in the US</li> </ul>   | 2003   |



## The Nippon Soda Group's Businesses

## Highly specialized trading, transportation and warehousing, construction, and other businesses

## Trading

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 currently making progress with regional strategies suited to each market, predominantly in Asia and India.

It has set "pharma/healthcare," "plant solutions," and "life innovation" as three strategic fields for growth, and in the future, it will continue to enter other new business fields.



## Transportation and Warehousing

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 can build high-quality logistics systems that can instantly respond to clients' needs. Based on its "safe and reliable" motto, the company provides a total logistics service that encompasses everything from selecting logistics sites to delivery in and out of warehouses, storage, customs, distribution processing, and final delivery.



## Construction

Nisso Engineering Co., Ltd. offers a comprehensive range of engineering services for various plants, systems, and equipment, while it also offers 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 addition to sophisticating its milli-scale devices and other proprietary technologies, the company is working to improve its engineering capabilities and work productivity by utilizing AI and IoT.



## Others

Nisso Metallochemical Co., Ltd. utilizes chemical manufacturing technology, alloy manufacturing technology, high-difficulty waste treatment technology, and others to offer recycling-based environmental solutions, and in turn contribute to the creation of a recycling-based society.

Elsewhere, Nisso Fine Co., Ltd. manufactures functional products, has a resin-forming business, and provides consignment production services.



## TOPICS

## Establishment of the New Business Planning and Development Department

At the Nippon Soda Group, we are targeting three new domains in which to set up new businesses: Food (food tech), Healthcare (healthcare for people and animals), and Advanced Materials (next-generation ICT materials/carbon neutrality). To promote research and development and early commercialization in these domains, in April 2022 we set up the New Business Planning and Development Department, a new organization under the direct control of the President. Here we look at some of the activities we are engaged in to expand into new domains.



Natsuki Amanokura

Manager, New Business Planning and Development Department

## We will proactively incorporate external expertise to create new businesses and respond to future market needs

The New Business Planning and Development Department was launched to bring together the new business development activities of each department at Nippon Soda and drive market-based approaches in a highly efficient manner. The department comprises a wide range of individuals, from those with experience in business and R&D departments to those working concurrently in the Corporate Strategy Department. The aim is to move away from conventional sectional operations and enhance cross-organizational collaboration to reinforce our promotion structure.

Our ultimate target is to create new pillar businesses for the next generation of the Nippon Soda Group, even further beyond the final year of our long-term vision in 2030. In addition to commercializing businesses in certain areas by 2030, we will also look at commercialization beyond this timescale. Under the direct control of the President, several projects are already underway, and we are promoting R&D and commercialization activities as we aim to enter new domains.

Ascertaining future needs requires continuous trial and error. Rather than looking at proprietary technological firsts, however, we will take an overarching view of potential future needs, and judge which theme to progress as we aim for commercialization. With its business life cycle at the forefront of our approach, we will formulate and actualize strategic processes for growth. To successfully expand into new areas, we must both enhance our existing technologies and acquire new technologies and expertise. To do so, we are working to obtain new technologies through alliances and partnerships with external organizations such as startups and universities, aiming to build win-win relationships and enhance our collaborative frameworks. Whether it be developed in-house, acquired externally, or built up through partnerships, we will select the optimal method to obtain new technologies and promote entry into new domains.

## New Material: 1 Developing a New Business Domain

At the Nippon Soda Group, the basic strategy for our long-term vision is to "sophisticate our core technologies by enhancing and combining our proprietary technologies and creating synergy with external technologies." We are targeting three new domains in which to create new value to help us achieve a sustainable society.

In the food domain, to provide a solution to modern-day food issues in society, in addition to the use of our accumulated technologies in agro products, with food tech as the theme we will propose the use of smart cell and cultivation technologies, two areas currently under development. In the healthcare domain, we are aiming to propose solutions for both human and animal healthcare, and are moving forward with

development for the animal medicine market, which is experiencing rapid growth. In these two areas, we will utilize the molecular design expertise we have developed in agrochemicals, as well as the assessment technologies and expertise we have in insecticides, to accelerate research and development. In the advanced materials domain, although to date we have commercialized semiconductor photoresist materials and materials for 5G communication devices in ICT, looking ahead we will also focus on carbon neutrality. We will look to combine our core technologies—that is, organic synthesis and polymerization—with those of external partners, and promote the development of hydrogen-related materials and next-generation ICT materials.

## New Material: 2 Promoting the Commercialization of Existing Research Themes

In our efforts to enter new business areas, we are currently conducting joint development with Kyulux, Inc., on a new compound for next-generation organic electroluminescence material which is slated for future commercialization in the advanced materials domain. Kyulux, a fabless startup from Kyushu University, has developed a thermally activated delayed fluorescence (TADF) material, which is a next-generation organic electroluminescence material that does not use rare metals.

Together, we are undertaking development in the use of the Nippon Soda Group's organic material development capabilities and synthesis expertise to manufacture highly efficient, high-quality TADF in a low-cost manner.

At Nippon Soda, using this joint development as a stepping stone, we will aim to enter the organic electroluminescence display business as a new business area.



## Our Approach to Sustainability-focused Management



### Osamu Shimizu

Director and Executive Managing Officer  
Supervision of CSR Promotion, Internal Control & Audit Dept., General Affairs Dept., and Finance & Accounting Dept.

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.

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 social contributions through the Group's businesses. We have identified Agriculture, Healthcare, the 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 enhancement and expansion of our businesses through R&D 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 our Group companies using a top-down approach, and this is where excellent corporate governance plays a key role. In 2020, we transitioned to a company with an Audit and Supervisory Committee, and four of our 11 directors are independent outside

directors. In giving directors who are members of the Audit and Supervisory Committee voting rights at the Board of Directors—which is at the center of our corporate governance structure—we have been able to further reinforce our monitoring functions. Further, as one measure to enhance our governance, we commission an external organization to analyze and assess the Board of Directors to ensure its appropriate execution of duties and to strengthen its supervisory functions. In this way, we are working to enhance the effectiveness of the Board of Directors.

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 working group for the reduction of GHG emissions. This working group is tasked with global warming countermeasures such as setting numerical targets for emissions reductions, examining ways to curb CO<sub>2</sub> emissions from our business activities, and ways to reduce CO<sub>2</sub> emissions throughout the supply chain through the spread of low-carbon products and technologies.

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 one of our most important management resources. We have thus sought to transfer our manufacturing technologies through the Nisso Technical Training Center, promote diversity, create workplaces where employees can work with fulfillment and pride, and achieve workstyle reform through digital transformations. 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)

#### Increasing Corporate Value

Transformation of our business portfolio into one that is resilient to changes in the business environment and generates stable earnings

Capital policies that value financial soundness and emphasize a balance between growth investment and shareholder returns

Achievement of key performance indicators (KPI)

#### Increasing Social Value

**CSR Activities to Protect Corporate Value**

- Responses to climate change issues and preservation of biodiversity
- Delivering deeper value to all stakeholders in society

**CSR Activities to Improve Corporate Value**

- Materialities in four fields (creation of new value) for realizing a sustainable society

### 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 | <ul style="list-style-type: none"> <li>Tackling climate change (participation in the Low Carbon Society Action Plan of the Ministry of Economy, Trade and Industry)</li> <li>Tackling the preservation of biodiversity (promoting activities to preserve forests and water sources)</li> </ul>   |
| Social Activities               | <ul style="list-style-type: none"> <li>Promoting dialogue with consumers, business partners and local communities, and responding appropriately</li> <li>Promoting diversity, work-life balance and career development programs</li> <li>Conducting constructive dialogue with shareholders and investors and disclosing information in a timely and appropriate manner</li> </ul> |
| Governance                      | <ul style="list-style-type: none"> <li>Enhancing corporate governance (transition to a company with an audit and supervisory committee)</li> <li>Promoting compliance management (enhance and properly operate systems and conduct training)</li> </ul>  |

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\* 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 2022 (P. 9-12, P. 28-64)

#### 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. 22-23

**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



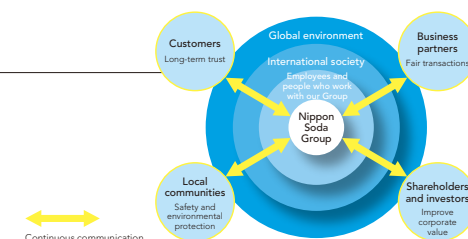
As part of our efforts to conduct CSR Activities to Improve Corporate Value, the Nippon Soda Group states in the basic CSR policy that the Group will make contributions through business toward resolving social issues and to help achieve the development of a sustainable society. In line with the CSR policy, 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/environment/management/>

### 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.







## 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 2022 (P. 28-31)

### 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 landfills).
- 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 Goals of the Nippon Soda Group (New Medium-Term Activity Goals for FY 2021–2023)

|   | Goal  | Initiatives   |
|---|---|---|
| (1) Environmental abnormalities                         | Zero events   | Implement measures for reducing risks by evaluating environmental impact<br>Plan and implement measures to prevent problems caused by human error   |
| (2) Energy  |   |   |
| 1. Energy consumption rate                              | Annual improvement of 1% and a 3% improvement in comparison to FY 2020 at the completion of the new medium-term plan  | With an eye to meeting the reduction target, focus on improving the energy consumption rate through setting, implementation, and evaluation of themes for improvement   |
| 2. Energy consumption rate in logistics                 | Annual improvement of 1% and a 3% improvement in comparison to FY 2020 at the completion of the new medium-term plan  | With an eye to meeting energy-saving logistics targets, focus on improving the energy consumption rate in logistics through setting, implementation, and evaluation of themes for improvement   |
| (3) Reduction of greenhouse gas emissions               | CO <sub>2</sub> emissions will be reduced by 1% for the year, and by 3% in comparison to FY 2020 when the new medium-term plan is completed. Eliminating trouble of fluorocarbon leakage from equipment | With an eye to meeting the reduction target, implement improvement measures in conjunction with energy-saving activities. Conduct periodic inspections and maintenance of equipment using Freon   |
| (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                 | Annual reduction of 3% in amount of final disposal at landfill<br>A 9% reduction compared to FY 2020 when the new medium-term plan is completed   | 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                                       | Continuation of achieving zero emissions  | Continue to achieve zero emissions at all worksites by reducing the amount of final disposal at landfills and amount transported to the industrial waste disposal facility  |
| (6) Emissions of harmful substances into the atmosphere | Annual improvement of 1% and a 55% improvement in comparison to FY 2015 at the completion of the new medium-term plan   | 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 Carbon Neutrality Action Plan, a voluntary action plan promoted by the Japan Business Federation (Keidanren). Under the action plan, we are promoting energy saving to achieve the CO<sub>2</sub> emissions reduction targets.

#### Reduction of energy consumption and greenhouse gas emissions

We are engaged in a wide range of measures to reduce our energy consumption rate. 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. Further, 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 until today, 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 for their stable generation 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 consumption rate.

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 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. Further, 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). Here we introduce our climate change initiatives in line with the TCFD's four recommended areas of disclosure: governance, strategy, risk management, 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 Company-wide decision-making body to promote 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 our main domestic Group companies. Through these meetings, management set CSR targets, assess results, and revise 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. Further, 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 a hydrogen-based society.

### 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   | 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. Further, we also disclose the results of our Scope 1, 2, and 3 GHG emissions. In FY 2022, due to an increase in production, GHG emissions grew 1.1% over the previous year (Nippon Soda, non-consolidated).

In April 2022, we set up a working group for the reduction of GHG emissions. This cross-sectional organization is responsible for setting GHG emissions reduction targets, examining countermeasures, and verifying results, and promotes initiatives to tackle climate change.

For more details, see ESG Data Book 2022 (P. 77)



## Effective Use of Resources and Reduction of Industrial Waste

We participate in the Voluntary Action Plan on the Environment promoted by the Japan Business Federation (Keidanren). 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 recycling-based 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 going to landfill.

### Zero emissions

Nippon Soda has achieved zero emissions\* for 11 consecutive years.

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

### PCB (polychlorinated bipheyl) waste

Each Nippon Soda site properly stores and manages condensers, transformers, mercury lamp ballasts, and other items which contain PCB and disposes of them appropriately one by one in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB (polychlorinated biphenyl) Wastes, which was revised in 2016.

## 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, our Company currently deals with 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 (SOx), nitrogen oxide (NOx), 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 the wastewater treatment plant.

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

## 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

## 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.



Tree planting ceremony (October 20, 2021) Nippon Soda Group Forest blueprint



## 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 2022 (P. 51-55)

### 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.

## 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 the creation of new innovation.

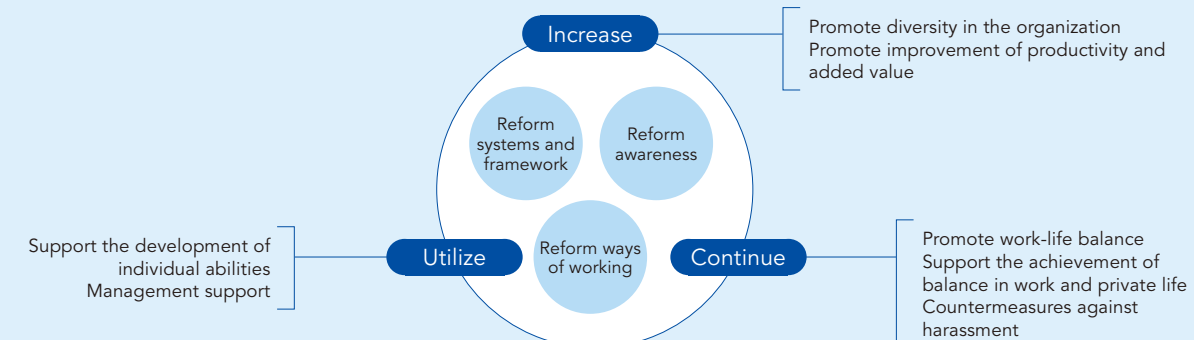
## Diversity Policy

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 new innovations 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 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 and shine, and grow and develop on a sustainable basis.

## Three Pillars of Promoting Diversity





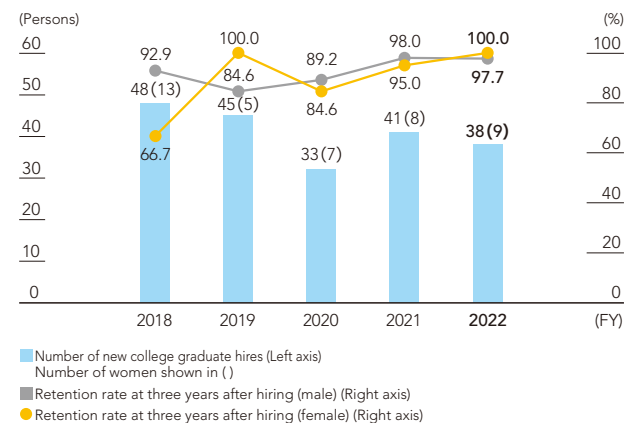
## Embracing Diversity (Women and Disabled Persons)

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

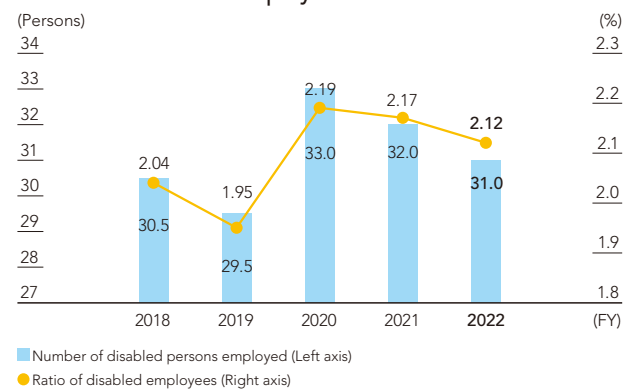
and change their viewpoint.

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.

### Number of Hired Persons (by Gender) and Retention Rate



### Number of Disabled Persons Employed and Ratio of Disabled Employees



## 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 increase 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

introducing 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

In order for Nippon Soda to continue to grow in the future, the development of human resources is essential. The foundation of human resources development is education and training. In addition to on-the-job training (OJT) at the workplace, the Company conducts a variety of programs, including position based training, management training, specialized training by job type, and support for self-development to improve language skills and obtain qualifications, as well as other programs.

### Educational Programs (Position-based Training)

| Position           | Position-based training                                  | Training for line managers                                | Career Development Support Program   | Self-development support |
|--------------------|--|---|--|--------------------------|
| Executives         | Executives training                                      |   |  |                          |
| Managers           | Level 3 training<br>Level 2 training<br>Level 1 training | Department managers training<br>Section managers training |  |                          |
| Assistant managers | Assistant managers training                              | Team managers training                                    |  |                          |
| Staff employees    | Follow-up training                                       |   | Career training (advanced) (at 10 years of employment)<br>Career training (basic) (at 5 years of employment) |                          |
| New employees      | Orientation training                                     |   | Tutor instructions (Specialized work)<br>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 independent 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 Transformation

In April 2022 we established the DX Promotion Department to comprehensively promote companywide digitalization, including digital transformation in manufacturing and research. The aim is to enhance our competitive advantage by sophisticating our approach to research and technology and promoting further operational efficiency.

Beginning in 2022, we introduced a work-from-home system for our Head Office, some of our sales offices, and our branch offices. At the same time, we also moved toward paperless office environments and introduced unassigned seating plans, reducing office size while enhancing office environments. Moving forward, we will make further use of digital technologies to improve work-life balance and drive workstyle reform.





## 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 regulations. Further, 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 2022 (P. 56-57)

### Basic Policy

- We will interact with our business partners with good sense and integrity, and endeavor to engage in fair and impartial transactions.
- We have formulated a Purchasing Policy for our purchasing activities, such as the procurement of raw materials, and will aim to build stable relationships of trust with our suppliers.

### 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 through further 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, regulations, and social norms and fair transactions

a. Compliance with relevant laws and regulations 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 disputes

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 the worker's health. In doing so, we ascertain the level of impact the material and its supply have on the environment and society.

Further, 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. Further, 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 2022 (P. 32-37)

### 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 of and improvement in 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.

#### 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.

### 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 the affected Head Office, plants, research centers, branch offices and sales offices.
- (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 management so that both employees and their families can maintain and improve their physical and mental health.

For more details, see ESG Data Book 2022 (P. 38-42)

### 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 reduce them to permissible levels.

### 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 disaster 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 Sampo Risk Management Inc. (The Mizushima Plant was inspected on December 15, 2021)



### Health Management

Nippon Soda considers the maintenance and improvement of health to be an important management issue. In March 2022, Nippon Soda was recognized again in the 2022 Certified Health & Productivity Management Organizations Recognition Program (White 500) for the fifth year in a row under the program jointly conducted by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. Nippon Soda, in cooperation with the health insurance association and the labor union, promotes efforts geared toward supporting the physical and mental health of employees.



## 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. Further, 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 2022 (P. 43-44)

### 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\*<sup>1</sup> and Container Yellow Card (product labels)\*<sup>2</sup>
- 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\*<sup>3</sup> 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.

\*<sup>1</sup> 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.

\*<sup>2</sup> 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.

\*<sup>3</sup> 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 regulations 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 2022 (P. 45-47)

### 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 ExESS, a chemical substance control system, and response to laws and regulations

We are strengthening our management of chemical substances using the chemical substance management system (ExESS),\*<sup>1</sup> which we use to create SDSs\*<sup>2</sup> 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 as well as Japan. In FY 2022, we improved ExESS to transfer Japanese SDSs to the revised Japanese Industrial Standard (JIS) version, and completed revision of the Japanese SDSs by May 24, 2022.

We also take action to comply with domestic and overseas laws and regulations (including the EU REACH regulation)\*<sup>3</sup> and conduct audits of poisonous and deleterious substances at our sales offices and branches.

\*<sup>1</sup> ExESS: Developed by Lisam Systems (Belgium).

\*<sup>2</sup> SDS (Safety Data Sheet): Documents describing information on chemical substances, product names, suppliers, hazards, precautionary safety measures, emergency response, etc.

\*<sup>3</sup> REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): European chemicals regulations. European regulations state that businesses that manufacture or import one ton or more of products per year are required to register the substances they handle and submit safety test data, and that substances for which data is not submitted (registered) cannot be sold.



## Relationship with Local Communities and Dialogue with 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 our 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 2022 (P. 60-64)

### 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.

Further, to ensure a 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 legal minimum wage in all areas we conduct business, we are also contributing to raising income levels in our regions.

#### 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 so-called 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.

### 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

Sompo Sustainability Index  
Selected as index constituent for two  
consecutive years

FTSE Blossom Japan Sector Relative Index  
Selected as index constituent



## Corporate Governance

### Corporate Governance Highlights

|  |  |                   |                  |
|--|--|-------------------|------------------|
| Directors                                | Directors who are members of the Audit and Supervisory Committee | Outside directors | Female directors |
| 8  | 3  | 4                 | 2                |
| (Average duration of tenure: 2.63 years) |  | (36.4%)           | (18.2%)          |

|   |  |   |                                       |                                   |
|---|--|---|---------------------------------------|-----------------------------------|
| 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 Management Council meetings | Number of meetings with investors |
| 3   | 18   | 15  | 35                                    | 203                               |
| (President and two outside directors)                         |  |   |                                       |                                   |

### Basic Concept

Nippon Soda places primary importance on sound and transparent business management in compliance with the law. Our management philosophy is to contribute to social development by providing superior products through chemistry, to meet expectations from stakeholders, including 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.

In addition, 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/environment/pdf/governance\\_report.pdf](https://www.nippon-soda.co.jp/environment/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 regulations and corporate ethics

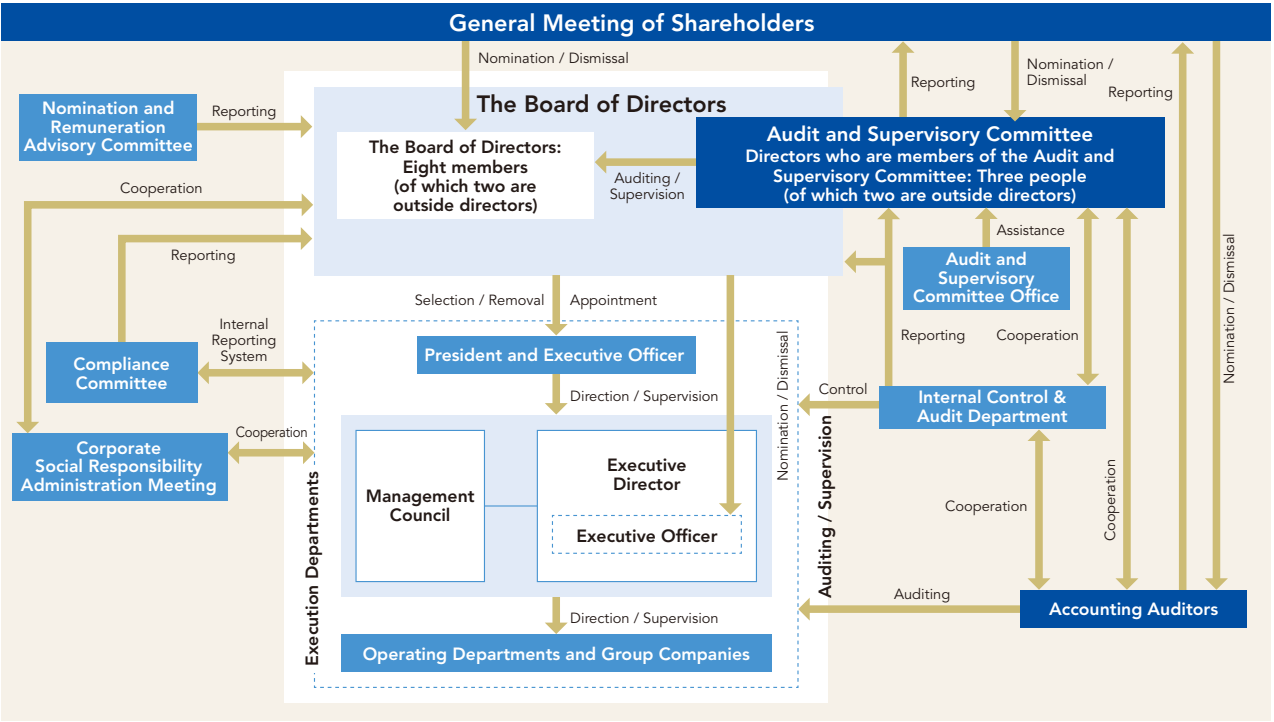
|         |   |
|---------|---|
| FY 2013 | Established CSR Administration Meeting<br>Abolished the executive retirement benefit system   |
| FY 2014 | Introduced an executive officer system (number of directors reduced from 14 to 7)<br>Nominated 1 outside director                                   |
| FY 2016 | Nominated 2 outside directors (increased by 1 person, including 1 woman)<br>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<br>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 regulations, 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 and executive remuneration, we have established a Nomination and Remuneration Advisory Committee consisting of two 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, branch, 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 Company-wide decision-making body to promote CSR activities, including Responsible Care (RC). Held twice a year, the Corporate Social Responsibility Administration 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 director, 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 director’s 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 one year, an executive of the Company or its subsidiaries
  - 3. a person who is currently, or has been in the past one 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 |
| Akira Ishii       | Male   | Director Chairman (Representative Director)                 | 13 years        | ●                                   |                      | ●                             |                             |                  |                      |                                 |
| Eiji Aga          | Male   | Director President (Representative Director)                | 2 years         | ●                                   |                      | ●                             |                             | ●                |                      |                                 |
| Atsuo Watanabe    | Male   | Director Executive Managing Officer                         | New appointment |                                     |                      |                               | ●                           |                  | ●                    |                                 |
| Osamu Sasabe      | Male   | Director Managing Officer                                   | 1 year          |                                     | ●                    | ●                             |                             |                  |                      |                                 |
| Osamu Shimizu     | Male   | Director Managing Officer                                   | New appointment |                                     | ●                    |                               |                             | ●                | ●                    |                                 |
| Mitsuaki Tsuchiya | Male   | Director  | 2 years         | ●                                   | ●                    |                               |                             |                  |                      |                                 |
| Yuko Watase       | Female | Director  | New appointment |                                     | ●                    | ●                             |                             | ●                |                      |                                 |
| Nobuyuki Shimoide | Male   | Director  | 3 years         | ●                                   |                      | ●                             |                             |                  |                      |                                 |
| Nobuyuki Hori     | Male   | Director Audit and Supervisory Committee member (Full-time) | New appointment |                                     | ●                    |                               |                             |                  |                      | ●                               |
| Yoko Waki         | Female | Director Audit and Supervisory Committee member             | 2 years         |                                     |                      |                               |                             |                  |                      | ●                               |
| Hayato Yoshida    | Male   | Director Audit and Supervisory Committee member             | New appointment |                                     | ●                    |                               |                             |                  |                      | ●                               |

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 of each director 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 2022 was discussed by the Nomination and Remuneration Advisory Committee on June 23, 2021. Based on their findings, director remuneration and share benefit trust points were discussed and determined at the Board of Directors' Meeting on June 23, 2021. Audit and Supervisory Committee member remuneration 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 2022 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 10 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 | Stock-based remuneration |                            |
| Directors (excl. Audit and Supervisory Committee members) (Outside directors) | 252 (21)                                       | 153 (21)   | 83 ( - )                        | 16 ( - )                 | 9 (2)                      |
| Directors (Audit and Supervisory Committee members) (Outside directors)       | 49 (21)  | 49 (21)  | - ( - )                         | - ( - )                  | 3 (2)                      |
| Total (Outside directors and outside auditors)                                | 302 (43)                                       | 203 (43)   | 83 ( - )                        | 16 ( - )                 | 12 (4)                     |

\*1 The above remuneration is based on the executive remuneration system used up until the 153rd Ordinary General Meeting of Shareholders held on June 29, 2022, when it was determined that the executive remuneration system would be revised.

\*2 The above number of persons and amount of remuneration includes that of one director who retired on June 29, 2021, due to the expiration of their term of office.

\*3 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\*

\* Adjustment of performance-linked remuneration for the current fiscal year: Calculations are based on two indices: Increase/decrease in consolidated ordinary profit and increase/decrease in non-consolidated operating margin.

These two indices measure the level of achievement of consolidated and non-consolidated business results. As they are appropriate indices to evaluate the achievements and level of contribution of each executive, they have been selected as indices for performance-linked remuneration.

For executives of sales departments, in addition to these indices, the performance of their relevant departments are also taken into consideration.

Increase/decrease in consolidated ordinary profit and increase/decrease in non-consolidated operating margin for FY 2022 were as follows:

- Increase/decrease in consolidated ordinary profit: ¥3,768 million
- Increase/decrease in non-consolidated operating margin: 17.2%

\*4 For the above stock-based remuneration, we have introduced a Board Benefit Trust system. BBT works on a position-based points system, and points are awarded using the following formula.

Formula: Standard points based on position x Index coefficient for the current fiscal year

Index coefficient for the current fiscal year is determined within a range of 0% to 150% using a matrix table with the following two indices: ROE for the current fiscal year and increase/decrease in consolidated operating profit (the amount of increase/decrease in the current fiscal year's actual results compared to the average of the previous three years). The results for each index in FY 2022 were as follows:

- ROE: 8.4%
- Increase/decrease in consolidated operating profit: ¥3,256 million

Revision of remuneration system

We have 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. At the 153rd Ordinary General Meeting of Shareholders held on June 29, 2022, a resolution was passed to introduce a transfer restricted stock remuneration system and, based on this system, to pay directors (excluding directors who are members of the Audit and Supervisory Committee, outside directors, and part-time directors) a monetary remuneration claim equivalent to the amount to be paid for transfer restricted stock. Further, in line with the approval of this system, we abolished the Board Benefit Trust

stock-based remuneration system as of the conclusion of the above Ordinary General Meeting of Shareholders.

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 outside directors, part-time directors, and directors who are members of the Audit and Supervisory Committee are paid only basic remuneration and are not subject to performance evaluation.

Overview of Decision Policy on Individual Remuneration (Revised 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.<br>Policy on decisions (formula)<br>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<br>*1 Adjustment of performance-linked remuneration for the current fiscal year:<br>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<br>*2 Performance-linked amount for the current fiscal year:<br>Calculated based on the following formula.<br>Standard points based on position × Index coefficient for the current fiscal year (%) *3 × Prior-fiscal year average share price<br>*3 Index coefficient for the current fiscal year<br>Determined within a range of 0% to 150% using a matrix table with the two indices below.<br>(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 to the average of the previous three years)<br><br>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<br>Basic remuneration: Performance-linked remuneration: Evaluation remuneration: Stock-based remuneration 40%: 40%: 5%: 15%<br><br>(Reference: Ratios under the former executive remuneration system)<br><br>Evaluation remuneration 5%<br>Stock-based remuneration: Approx. 5%  |
| (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 2022, questionnaires put together by the external organization and comprising the topics below were given to all directors, including directors who are Audit and Supervisory Committee members. Based on these results, the external organization held interviews with all directors, and the Board of Directors examined and discussed current conditions in line with the details of these interviews.

As a result, overall, it was confirmed that the Board of Directors was

functioning effectively. Regarding Board of Director 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 enhancement of discussions on medium- to long-term management strategies and the reinforcement of supervisory functions for matters related to nomination and remuneration.

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 Director 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 Director 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 2022 (P. 72-73)

Basic Policy

The Nippon Soda Group ensures corporate activities are undertaken in compliance with laws, regulations 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, rules, regulations and corporate ethics  | (1) Fair behavior (2) Compliance with corporate ethics (3) Prompt corrective action and strict disciplinary action in response to the violation of a law, rule or regulation   |
| 2. Relationship with society                                      | (1) Contribution to society (2) Compliance with all applicable laws (3) Restrictions on political and other donations (4) Severance of relationships with antisocial forces (5) Environmental preservation and protection (6) Compliance with laws and regulations related to security trade control and imports and exports |
| 3. Relationship with customers, business partners and competitors | (1) Safety of products (2) Compliance with the Antimonopoly Act (3) Compliance with suppliers' guidelines for fair transactions and the Subcontract Act (4) Prevention of unfair competition (5) Business entertainment and gifts (6) Prevention of bribery of foreign public officials (7) Appropriate advertising          |
| 4. Relationship with shareholders and investors                   | (1) Disclosure of management information (2) Prohibition of insider trading  |
| 5. Relationship with individuals                                  | (1) Respect for human rights and prohibition of discrimination (2) Prohibition of harassment (3) Protection of privacy (4) Safety and hygiene at worksites (5) Compliance with labor laws  |
| 6. Relationship with the Company and its assets                   | (1) Compliance with working regulations (2) Proper accounting (3) Conflicts of interest (4) Prohibition of political and religious activities (5) Management of corporate secrets (6) Appropriate use of corporate assets (7) Appropriate use of information systems (8) Protection of intellectual property                 |
| 7. Supplementary provisions                                       | (1) Scope of application of this Code of Conduct (2) Revision and abolition of this Code of Conduct (3) Violation consultation hotline (4) Penalties   |

Compliance Promotion System

Nippon Soda has 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 as its members. At each department, branch, worksite and Group company, a staff member in charge of compliance is appointed.

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. This Code of Conduct is distributed to the executives and all employees of the Company and its consolidated subsidiaries, and we provide ongoing training to ensure thorough compliance with laws and regulations. We conduct legal

education and training related to our operations once a year or more, and in FY 2022, we conducted a total of 13 major compliance training sessions for the Company and major Group companies. 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 2022 (P. 74-75)

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 CSR (corporate social responsibility) 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, regulations 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.

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 results of operations could be significantly affected.
- (2) In the Agro Products Business, earnings tend to increase in the fourth quarter due to the seasonal nature of demand. In addition, the Group's business results may be significantly affected by weather fluctuations, as the Group's businesses tend to be susceptible to weather conditions.
- (3) Predominantly through the Chemicals Business and the Agro Products Business, the Group conducts business on a global scale. Moreover, around 55% of our sales in the Chemicals Business and the Agro Products Business were 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 operating results 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 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 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 appropriately shifting the costs to sales prices.

### 4. Legal and regulatory risks

While the Group conducts its business activities in compliance with the laws and regulations 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 the Agro Products 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 results of operations 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 results 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 investment due to a decline in profitability or other factors, recording an impairment loss could have a material impact on the Group's results of operations.

### 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 results 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 results.

### 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. 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 our confidential information, and are striving to reinforce our information management system in other ways.

### 12. COVID-19 pandemic risks

As some of the Group's businesses include products and services that are affected by economic fluctuations, significant fluctuations in market conditions due to changes in the economic environment caused by COVID-19, as well as stagnation of our business activities caused by the spread of infection among employees, could have a significant impact on the Group's business results. In addition to accurately ascertaining and analyzing market trends, with employee safety as our foremost priority, we will implement telework systems and other measures to prevent the spread of infection, so that we can maintain our business activities.

## Messages from Outside Directors

### Expanding Growth Businesses and Promoting ESG Management to Improve Both Corporate and Social Value



**Mitsuaki Tsuchiya**

Outside Director

Since I assumed my position as an outside director in June 2020, I believe the Nippon Soda Group's long-term vision, Brilliance through Chemistry 2030, focused in the right direction. The Company has now reached the final year of Stage I, the first medium-term business plan of its long-term vision, and it is making steady progress in transitioning to a highly efficient business structure.

As the Company moves forward with its fundamental restructuring of the caustic potash and peripheral businesses, it has also successfully been expanding its overseas businesses, predominantly in agrochemicals and pharmaceutical additives. It has also launched a promising new agrochemical to market and made proactive capital investments in growth fields. In terms of the organization, in April 2022 the Company set up two new departments to reinforce initiatives aimed at structural reform: the New Business Planning and Development Department and the DX Promotion Department. As a result, the Company has made steady improvements in operating margin, ROE, and other management KPIs. In addition, the Company has positioned ESG initiatives at the center of management, focusing on the four fields of agriculture, healthcare, the environment, and ICT as materialities (important issues). In this way, it is moving forward with efforts to improve both corporate and social value.

To date, Nippon Soda has ensured robust corporate governance, but with the revision of the Corporate Governance Code and other factors, the Company continues to further reinforce its management structure. In February 2022, the CSR Administration Meeting switched its composition to include all directors, including outside directors and Audit and Supervisory Committee members. At the Nomination and Remuneration Advisory Committee, which comprises two outside directors and the President, members have reviewed executive remuneration to ensure it is more in line with the long-term vision. Further, members have specified the qualities required of the next president, engaged in lively discussions regarding Board of Director diversity and expertise, and made various other decisions based on members' opinions.

I understand that my role as an outside director is to contribute to the sound development of the Nippon Soda Group from a different standpoint to management involved in business execution. As such, in addition to proactively offering outside opinions to the Board of Directors and various other committees, I am participating in a range of engagements as an observer.

### Contributing to Sound Business Development by Ascertaining Risks and Opportunities from an Objective Standpoint

With prolonged impacts from the pandemic, increasing geopolitical risks, and soaring energy costs, uncertainties continue to affect the Company's business environment. Despite these circumstances, since becoming an outside director I have immediately seen the Company achieve the targets outlined in Brilliance through Chemistry Stage I at a pace much quicker than anticipated. As such, I also have growing expectations for Stage II, the Company's next medium-term business plan.

In Stage I, the Company sought to build a foundation for future growth by liquidating its unprofitable businesses and cultivating and establishing core technologies. In Stage II, I believe the Company will look to build on this foundation by investing in new domains and creating new added value.

In these times of uncertainty, flexibility has never been more important. However, due to Nippon Soda's open in-house environment, its thorough respect for others' opinions, and its earnest approach to business, I believe it has the qualities to overcome these challenging circumstances. Further, upper management are carefully working to reinforce corporate governance, but rather than just for form's sake, I was surprised by how each member is taking a genuine approach to improving the Company's corporate governance structure.

As a certified public accountant, I was previously involved in corporate accounting audits. Later, I worked at an M&A advisory company for around 20 years, where I carried out financial due diligence, offered advice on post-merger integrations, and contributed to various other important activities such as M&As at global companies in various industries. While as an outside director I might be expected to offer criticism, in order for the Company to achieve growth, it's important that I look at both how to avoid risks and how to capture opportunities. Using my experience to date, I hope to help the Company conduct M&As, form alliances, and rebuild its existing businesses from an objective standpoint.



**Yuko Watase**

Outside Director



Directors and Executive Officers

Directors



**Akira Ishii**  
Representative Director, Chairman

April 1976 Joined the Company  
April 2009 Manager, Personnel Dept.  
June 2009 Director, Corporate Planning Dept. and  
Affiliates Dept. and Manager, Personnel Dept.  
April 2011 Director, Corporate Planning Dept. and  
Manager, Personnel Dept.  
June 2011 Director, Corporate Planning and Manager,  
Personnel Dept.  
April 2013 Director, General Manager, Agro Products Div.  
June 2013 Director, Executive Managing Officer, General  
Manager, Agro Products Div.  
June 2015 Representative Director, President  
April 2021 Representative Director, Chairman  
(current position)

Board of Director Meeting  
attendance: 18/18



**Eiji Aga**  
Representative Director, President  
Supervision of New Business Planning and Development Dept.

April 1985 Joined the Company  
April 2010 Manager, Fine Chemical Dept.,  
Chemicals Business Div.  
February 2012 Executive Vice President, Alkaline SAS  
(Secondment)  
April 2015 Manager, Business Strategy & Administration  
Dept., Chemicals Business Div.  
April 2017 Executive Officer, General Manager,  
Chemicals Business Div. and 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 Supervision of New Business Planning and  
Development Dept. (current position)

Board of Director Meeting  
attendance: 18/18



**Atsuo Watanabe**  
Director  
Executive Managing Officer  
Supervision of Technology, Purchasing & Logistics Dept.,  
Responsible Care Management Dept., General Manager,  
Production & Technology Div., and 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. and 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., Responsible Care  
Management Dept., General Manager,  
Production & Technology Div., and Manager,  
Trade Administration Dept. (current position)

Board of Director Meeting  
attendance: N/A  
(new appointment)



**Osamu Sasabe**  
Director  
Executive Officer  
Corporate Planning Dept., DX Promotion Dept., Secretariat  
Dept., and Human Resources 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.,  
and Group Leader, DX Promotion Group,  
Corporate Strategy Dept.  
April 2021 Executive Officer, Manager, Corporate  
Strategy Dept. and Group Leader, DX  
Promotion Group  
June 2021 Director, Executive Officer, Human Resources  
Dept., Manager, Corporate Strategy Dept.,  
and Group Leader, DX Promotion Group  
April 2022 Representative Director and President of NS  
Business Support CO., Ltd. (current position)  
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. (current position)

Board of Director Meeting  
attendance: 14/14  
(since becoming company director)



**Osamu Shimizu**  
Director  
Executive Officer  
Supervision of CSR Promotion, Internal Control & Audit Dept.,  
General Affairs Dept. and Finance & Accounting Dept.

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. and  
General 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. (current position)

Board of Director Meeting  
attendance: N/A  
(new appointment)



**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, Secretariat 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),  
Director, Audit & Supervisory Committee  
member, ASAHI INDUSTRIES CO., LTD., and  
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 Director Meeting  
attendance: 18/18



**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 Director of the Company (current position)

Board of Director Meeting  
attendance: N/A (new appointment)



**Nobuyuki Shimoide**  
Director (part-time)

April 1983 Joined the Company  
April 2013 Manager, Corporate Planning Dept.  
April 2015 Executive Officer, General Manager,  
Corporate Planning Dept. and Affiliates Dept.  
April 2016 Executive Officer, Assistant to President  
(Special Missions)  
June 2016 Managing Director, Nisso Engineering Co., Ltd.  
April 2019 Executive Managing Officer, General  
Manager, Corporate Strategy Dept.  
June 2019 Director, Executive Managing Officer,  
Supervision of Corporate Planning (Corporate  
Strategy and Information Technology) and  
Internal Control & Audit Dept.  
April 2020 Director, Executive Managing Officer, and  
Manager, Corporate Strategy Dept.  
April 2021 Director, Executive Managing Officer, and  
Corporate Strategy Dept.  
June 2021 Director, the Company (current position)  
Representative Director, President, Nisso Fine  
Co., Ltd. (current position)

Board of Director Meeting  
attendance: 18/18

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 SAS  
(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 Director Meeting  
attendance: N/A  
(new appointment)  
Audit and Supervisory Committee  
Meeting attendance: N/A  
(new appointment)



**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 Director Meeting  
attendance: 18/18  
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  
(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 Director Meeting  
attendance: N/A  
(new appointment)  
Audit and Supervisory Committee  
Meeting attendance: N/A  
(new appointment)

Executive Officers

Executive Officer  
**Teruo Tachibana**  
General Manager, Nihongi Plant

Executive Officer  
**Kazunori Akatsuka**  
General Manager, Takaoka Plant

Executive Officer  
**Atsuhiko Seshimo**  
Deputy General Manager, Production & Technology Div. and  
Manager, Production Planning & Management Dept.

Executive Officer  
**Shoichi Akagawa**  
General Manager, Chemicals Business Div. and Manager,  
Osaka Branch Office

Executive Officer  
**Masatsugu Hatayama**  
General Manager, Odawara Research Center, Research &  
Development Div.

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

Executive Officer  
**Masashi Mizoguchi**  
General Manager, Agro Products Div.

Executive Officer  
**Yasuyuki Miyazawa**  
General Manager, Chiba Plant

# 10-year Financial and Non-financial Highlights

|  |                   | FY 2013  | FY 2014  | FY 2015  | FY 2016  | FY 2017  | FY 2018  | FY 2019  | FY 2020  | FY 2021  | FY 2022  |
|--|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Operating Results  |                   |          |          |          |          |          |          |          |          |          |          |
| Net sales  | (Millions of yen) | 127,581  | 140,649  | 148,062  | 142,711  | 128,647  | 141,230  | 145,663  | 144,739  | 139,363  | 152,536  |
| Operating profit   | (Millions of yen) | 4,094    | 6,399    | 7,285    | 7,415    | 5,365    | 6,390    | 7,906    | 8,135    | 9,980    | 11,930   |
| Operating profit on sales (ROS)                                      | (%)               | 3.2      | 4.5      | 4.9      | 5.2      | 4.2      | 4.5      | 5.4      | 5.6      | 7.2      | 7.8      |
| Share of profit (loss) of entities accounted for using equity method | (Millions of yen) | 4,246    | 2,705    | 6,338    | 11,728   | 4,898    | 2,239    | (1)      | 1,841    | 1,856    | 3,063    |
| Ordinary profit  | (Millions of yen) | 8,317    | 9,740    | 14,924   | 18,952   | 9,908    | 9,204    | 8,888    | 10,312   | 12,743   | 16,512   |
| Profit attributable to owners of parent                              | (Millions of yen) | 5,303    | 5,833    | 10,945   | 14,313   | 8,785    | 6,378    | 5,802    | 6,759    | 7,360    | 12,683   |
| Financial Position   |                   |          |          |          |          |          |          |          |          |          |          |
| Total assets   | (Millions of yen) | 193,344  | 204,297  | 221,285  | 220,587  | 217,302  | 219,457  | 216,212  | 210,556  | 227,975  | 245,585  |
| Net assets   | (Millions of yen) | 100,246  | 108,224  | 127,181  | 131,489  | 138,069  | 144,801  | 144,916  | 144,440  | 149,203  | 158,298  |
| Equity ratio   | (%)               | 48.9     | 50.0     | 54.6     | 58.5     | 62.3     | 64.6     | 65.6     | 67.1     | 63.9     | 63.5     |
| Interest-bearing debt  | (Millions of yen) | 50,985   | 50,696   | 49,343   | 49,847   | 39,240   | 31,939   | 26,116   | 29,220   | 39,145   | 40,247   |
| Debt-to-equity ratio*1   | (Times)           | 0.54     | 0.50     | 0.41     | 0.39     | 0.29     | 0.23     | 0.18     | 0.21     | 0.27     | 0.26     |
| Return on equity (ROE)   | (%)               | 5.9      | 5.9      | 9.8      | 11.5     | 6.6      | 4.6      | 4.1      | 4.8      | 5.1      | 8.4      |
| Operating profit on assets (ROA)                                     | (%)               | 2.2      | 3.2      | 3.4      | 3.4      | 2.5      | 2.9      | 3.6      | 3.8      | 4.6      | 5.0      |
| Cash Flows   |                   |          |          |          |          |          |          |          |          |          |          |
| Cash flows from operating activities                                 | (Millions of yen) | 9,836    | 11,260   | 9,588    | 10,639   | 41,236   | 12,085   | 11,677   | 12,449   | 13,821   | 14,545   |
| Cash flows from investing activities                                 | (Millions of yen) | (10,783) | (11,805) | (4,600)  | (9,424)  | (7,858)  | (8,327)  | (15,280) | (10,399) | (13,770) | (11,620) |
| Free cash flow*2   | (Millions of yen) | (947)    | (545)    | 4,988    | 1,215    | 33,377   | 3,758    | (3,603)  | 2,050    | 51       | 2,924    |
| Cash flows from financing activities                                 | (Millions of yen) | 203      | (1,888)  | (2,776)  | (1,323)  | (14,620) | (9,485)  | (7,534)  | (1,161)  | 1,722    | (4,802)  |
| Cash and cash equivalents at end of period                           | (Millions of yen) | 14,346   | 12,402   | 14,853   | 14,494   | 33,146   | 27,585   | 16,536   | 17,200   | 19,253   | 17,898   |
| Per Share Indicators   |                   |          |          |          |          |          |          |          |          |          |          |
| Earnings per share   | (Yen)             | 174.35   | 191.79   | 359.80   | 464.03   | 287.04   | 211.35   | 192.27   | 224.28   | 255.17   | 454.39   |
| Net assets per share   | (Yen)             | 3,105.82 | 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 |
| Dividend per share   | (Yen)             | 30       | 40       | 50       | 60       | 60       | 60       | 60       | 80       | 110      | 180      |
| Dividend payout ratio  | (%)               | 17.2     | 20.9     | 13.9     | 12.9     | 20.9     | 28.4     | 31.2     | 35.7     | 43.1     | 39.6     |
| Others   |                   |          |          |          |          |          |          |          |          |          |          |
| Capital expenditure  | (Millions of yen) | 9,412    | 6,115    | 7,987    | 6,764    | 6,512    | 8,589    | 8,026    | 8,824    | 7,718    | 13,113   |
| Depreciation   | (Millions of yen) | 5,761    | 6,480    | 6,436    | 6,242    | 6,397    | 6,532    | 6,966    | 7,578    | 7,662    | 8,577    |
| R&D costs  | (Millions of yen) | 5,941    | 6,480    | 6,343    | 6,670    | 6,495    | 7,250    | 6,241    | 6,127    | 5,791    | 5,844    |
| Non-financial Indicators   |                   |          |          |          |          |          |          |          |          |          |          |
| Carbon dioxide emissions   | (Thousand tons)   | 217      | 222      | 223      | 214      | 218      | 226      | 207      | 203      | 188      | 187      |
| Energy consumption (in crude oil equivalent)                         | (ML)              | 94.5     | 94.8     | 99.0     | 93.9     | 94.9     | 96.4     | 93.7     | 93.1     | 88.3     | 93.0     |
| Number of employees (consolidated)                                   | (Persons)         | 2,539    | 2,501    | 2,507    | 2,664    | 2,684    | 2,683    | 2,724    | 2,744    | 2,770    | 2,785    |

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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 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 management 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, despite negative impact from soaring raw material prices, thanks to an increase in sales in our Chemicals, Trading, and Agro products businesses, net sales

totalled ¥152,536 million (up 9.5% year on year) and operating profit reached ¥11,930 million (up 19.5% year on year).

Meanwhile, thanks to an increase in profit of entities accounted for using the equity method, further depreciation of the yen compared to the previous year, and other factors, ordinary profit stood at ¥16,512 million (up 29.6% year on year).

Profit attributable to owners of parent increased to ¥12,683 million (up 72.3% year on year). This was thanks to extraordinary income from gain on exchange of subsidiaries’ and affiliates’ stock—due to the business integration of Certis Europe B.V., formerly an affiliated company accounted for by the equity method—and absence of extraordinary losses brought about by impairment losses from structural reforms in the previous fiscal year.

caustic soda, overall sales increased.

Fine chemicals also experienced a rise in sales thanks to growth in color developers for thermal paper and specialty isocyanates.

Specialty chemicals marked a rise in sales due to increases in sales of VP-POLYMER, a semiconductor photoresist material, and the resin additive NISSO-PB.

Sales of eco business products were on par with the previous year.

Thanks to an increase in sales of our pharmaceutical additive NISSO HPC, as well as active pharmaceutical ingredients, overall sales of pharmaceuticals and industrial fungicides grew.

the acaricide NISSORUN (hexythiazox).

Sales of herbicides decreased overall due to a drop in export demand for NABU (sethoxydim) and intermediates.

### Trading

Net sales for the fiscal period under review totaled ¥35,684 million (up 10.4% year on year), while operating profit stood at ¥1,171 million (up 60.4% year on year). This was due to an increase in sales in both organic and inorganic materials, as well as nonferrous materials and urethane materials.

### Transportation and Warehousing

Net sales and operating profit for the fiscal period under review totaled ¥4,461 million (up 5.6% year on year) and ¥685 million (up 14.3% year on year), respectively, on the back of the robust performance in our transportation and warehousing businesses.

### Construction

Net sales and operating profit for the fiscal period under review totaled ¥8,216 million (down 3.4% year on year) and ¥1,143 million (up 3.7% year on year), respectively, due to strong performance in plant construction works.

### Others

Net sales and operating profit for the fiscal period under review totaled ¥9,724 million (up 13.9% year on year) and ¥1,063 million (up 36.1% year on year), respectively.

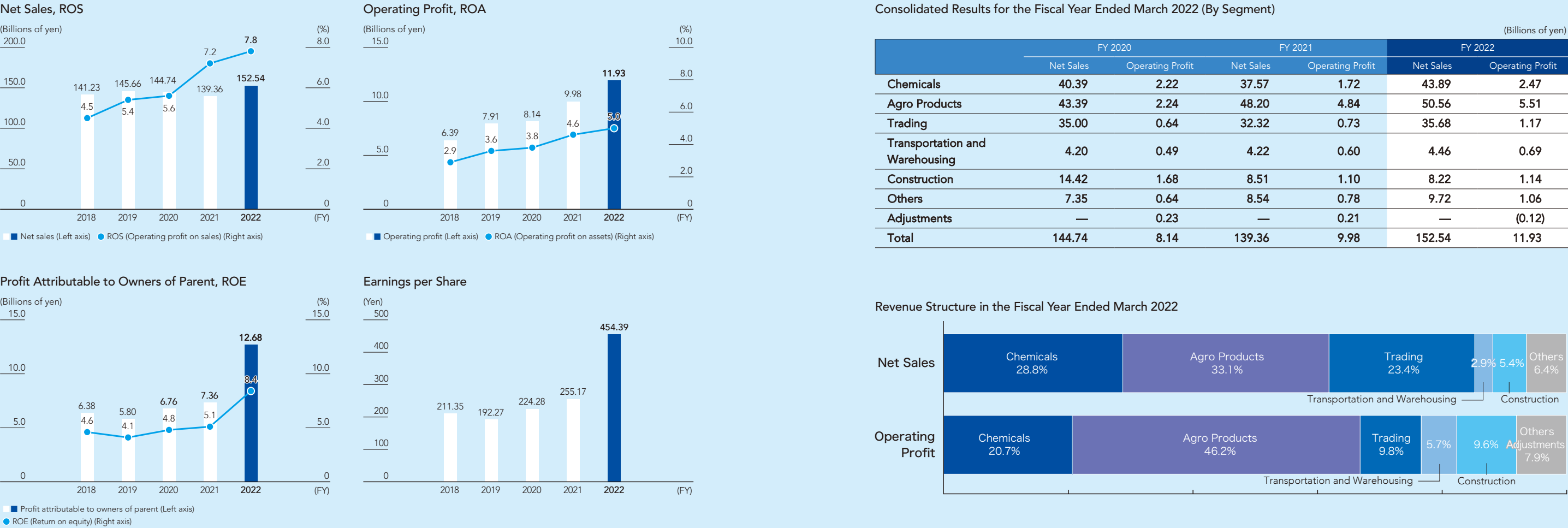
## Results by Segment

### Chemicals

Thanks to the recovery of economic activity following pandemic-induced stagnation, sales of fine chemicals and specialty chemicals increased. Sales of our pharmaceutical additive NISSO HPC also increased as we commenced operations at facilities after work to reinforce production capacity.

As a result, net sales and operating profit for the fiscal period under review totaled ¥43,887 million (up 16.8% year on year) and ¥2,473 million (up 43.6% year on year), respectively.

In industrial chemicals, despite a drop in sales of caustic potash, due to a rise in selling price for phosphorous chloride due to soaring raw material prices and an increase in sales of



Financial Position

Total assets as of March 31, 2022, increased ¥17,610 million compared to March 31, 2021, to ¥245,585 million thanks to an increase in investment securities, notes and accounts receivable, and contract assets. Meanwhile, among others, due to the commencement of operations at NISSO HPC facilities after work to reinforce production capacity, construction in progress fell ¥2,541 million, machinery, equipment and vehicles increased ¥3,476 million, and buildings and structures increased ¥2,695 million.

Total liabilities increased ¥8,515 million compared to March 31, 2021, to ¥87,287 million due to an increase in notes and accounts payable.

Also, net assets increased ¥9,094 million compared to March 31, 2021, to ¥158,298 million. As a result, the equity ratio for the fiscal year ended March 31, 2022, was 63.5%.

Cash Flows

Cash and cash equivalents for the fiscal year ended March 31, 2022 fell ¥1,355 million to ¥17,898 million. Although we recorded profit before income taxes of ¥17,455 million (including ¥3,063 million of share of profit of entities accounted for using equity method, a non-cash item), and depreciation of ¥8,577 million, this was mainly attributable to purchase of property, plant and equipment of ¥11,357 million, an increase in trade receivables of ¥6,802 million, ¥3,504 million in dividends paid, and ¥3,012 million in taxes paid.

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 entering new technology areas and creating 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 ¥5,844 million (3.8% of consolidated net sales). The number of R&D personnel was 341 for the entire Group (12.2% of total employees).

Chemicals

In the specialty chemicals area, the Group is carrying out development that leverages its technological characteristics in fields such as new polymer materials using precise polymerization technology and organic EL (electroluminescence) materials. In January 2022, we have launched the new functional polymer liquid 1,2-SBS (styrene-butadiene-styrene) in the market using our precise polymerization technology. We will look to extend sales of the product for use in electronic materials, synthetic rubbers, and adhesives.

Furthermore, the Group is seeking to aggressively expand into new areas while enhancing the competitiveness of existing products, including cellulose derivatives, 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.

In the precision synthesis area, the Group aims to create new products through the development of key intermediates using its unique ability to handle raw materials such as phosgene, hydrocyanic acid and metallic sodium, and the development of new manufacturing technology.

The R&D costs of Chemicals were ¥1,269 million.

Agro Products

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

It is also aggressively promoting development abroad, including Europe and the United States, for PYTHILOCK (picarbutrazox), a fungicide that shows a prominent effect against downy mildew and Pythium blight. The applications of the product include foliar spraying on cucurbits and leafy vegetables as well as seed treatment for major grain groups such as corn, etc. In October 2020, the Group launched DANYOTE (acynonapyr), an acaricide that has a new mode of action, and the product is gaining in popularity. MIGIWA (ipflufenquin), a fungicide that is effective against a broad range of diseases, was launched to market in Japan in February 2021. 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.

The R&D costs of Agro Products were ¥4,574 million.

Others

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

Capital Expenditure

The Nippon Soda Group made capital investments of ¥13,113 million during the fiscal period under review, mainly to boost production capacity in the Chemicals Business, and to build mass-production facilities for new products and 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 ¥9,817 million mainly in the construction of facilities to boost production of pharmaceutical additives, and the enhancement, streamlining, maintenance and updating of the manufacturing equipment of its products.

Agro Products

The Agro Products Business made capital investments of ¥1,837 million mainly in the enhancement, streamlining, maintenance and updating of the manufacturing equipment of its products.

Trading

The Trading Business made capital investments of ¥1 million mainly in streamlining, maintenance and updating.

Transportation and Warehousing

The Transportation and Warehousing Business made capital investments of ¥736 million mainly in the construction of a new company office building, and streamlining, maintenance and updating.

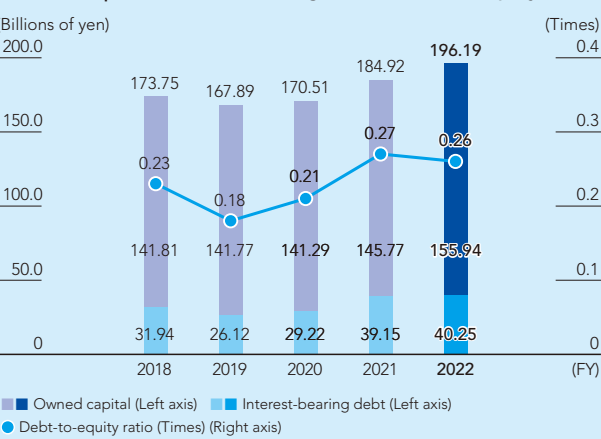
Construction

The Construction Business made capital investments of ¥46 million mainly in streamlining, maintenance and updating.

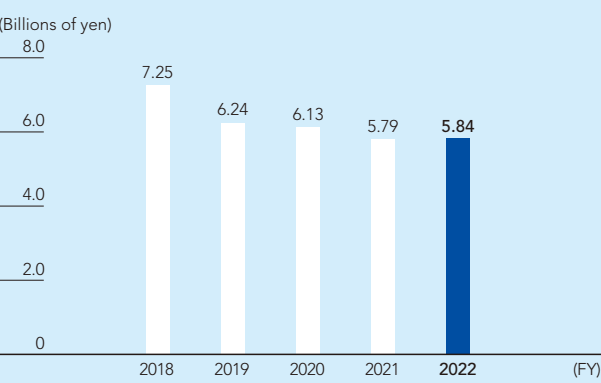
Others

Other business made capital investments of ¥674 million mainly in streamlining, maintenance and updating of equipment related to environmental development.

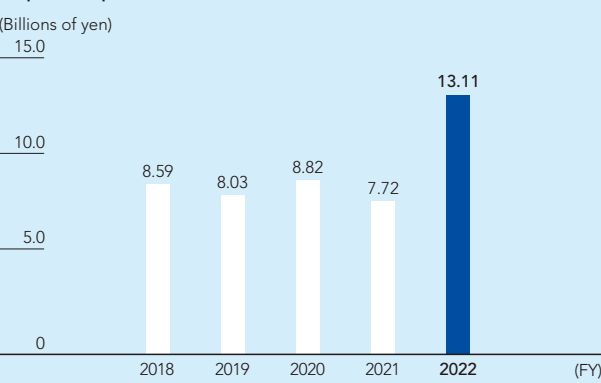
Owned Capital, Interest-bearing Debt, Debt-to-Equity Ratio



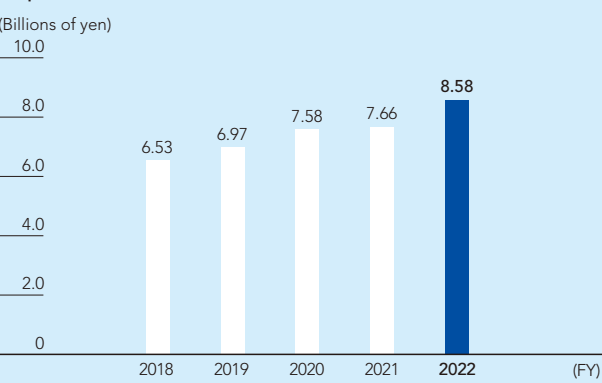
R&D Costs



Capital Expenditure



Depreciation





# Consolidated Balance Sheets

(Millions of yen)

|   | As of March 31, 2021 | As of March 31, 2022 |
|---|----------------------|----------------------|
| <b>Assets</b>                                       |                      |                      |
| Current assets                                      |                      |                      |
| Cash and deposits                                   | 19,286               | 17,936               |
| Notes and accounts receivable - trade               | 42,946               | —                    |
| Notes and accounts receivable and contract assets   | —                    | 48,561               |
| Electronically recorded monetary claims - operating | 2,310                | 3,947                |
| Inventories   | 32,116               | 34,861               |
| Others  | 3,895                | 3,716                |
| Allowance for doubtful accounts                     | (204)                | (11)                 |
| Total current assets                                | 100,351              | 109,011              |
| Fixed assets  |                      |                      |
| Property, plant and equipment                       |                      |                      |
| Buildings and structures                            | 63,678               | 67,963               |
| Accumulated depreciation                            | (44,631)             | (46,221)             |
| Buildings and structures, net                       | 19,046               | 21,741               |
| Machinery, equipment and vehicles                   | 116,957              | 125,124              |
| Accumulated depreciation                            | (98,990)             | (103,681)            |
| Machinery, equipment and vehicles, net              | 17,966               | 21,442               |
| Tools, furniture and fixtures                       | 11,966               | 12,139               |
| Accumulated depreciation                            | (9,923)              | (10,119)             |
| Tools, furniture and fixtures, net                  | 2,042                | 2,020                |
| Land  | 14,930               | 14,945               |
| Construction in progress                            | 8,310                | 5,768                |
| Others  | 2,138                | 2,300                |
| Accumulated depreciation                            | (712)                | (1,053)              |
| Others, net   | 1,425                | 1,246                |
| Total property, plant and equipment                 | 63,722               | 67,165               |
| Intangible fixed assets                             |                      |                      |
| Goodwill  | 187                  | 158                  |
| Others  | 5,333                | 4,810                |
| Total intangible fixed assets                       | 5,521                | 4,969                |
| Investments and other assets                        |                      |                      |
| Investment securities                               | 41,695               | 47,666               |
| Retirement benefit assets                           | 10,979               | 11,717               |
| Deferred tax assets                                 | 3,339                | 3,338                |
| Others  | 2,367                | 1,718                |
| Allowance for doubtful accounts                     | (1)                  | (1)                  |
| Total investments and other assets                  | 58,381               | 64,439               |
| Total non-current assets                            | 127,624              | 136,574              |
| Total assets  | 227,975              | 245,585              |

(Millions of yen)

|   | As of March 31, 2021 | As of March 31, 2022 |
|---|----------------------|----------------------|
| <b>Liabilities</b>                                    |                      |                      |
| Current liabilities                                   |                      |                      |
| Notes and accounts payable - trade                    | 14,764               | 19,093               |
| Electronically recorded obligations - operating       | 1,942                | 2,229                |
| Short-term borrowings                                 | 16,172               | 22,572               |
| Income taxes payable                                  | 2,226                | 2,248                |
| Provision for bonuses                                 | 3,925                | 4,370                |
| Others  | 5,531                | 6,769                |
| Total current liabilities                             | 44,562               | 57,284               |
| Non-current liabilities                               |                      |                      |
| Long-term borrowings                                  | 21,535               | 16,414               |
| Deferred tax liabilities                              | 5,117                | 6,920                |
| Retirement benefit liability                          | 2,465                | 2,230                |
| Provision for environmental measures                  | 1,003                | 465                  |
| Others  | 4,087                | 3,971                |
| Total non-current liabilities                         | 34,209               | 30,002               |
| Total liabilities                                     | 78,772               | 87,287               |
| <b>Net assets</b>                                     |                      |                      |
| Shareholders' equity                                  |                      |                      |
| Share capital   | 29,166               | 29,166               |
| Capital surplus                                       | 25,141               | 25,670               |
| Retained earnings                                     | 89,364               | 96,399               |
| Treasury shares                                       | (3,338)              | (2,830)              |
| Total shareholders' equity                            | 140,334              | 148,406              |
| Accumulated other comprehensive income                |                      |                      |
| Valuation difference on available-for-sale securities | 9,825                | 11,257               |
| Deferred gains or losses on hedges                    | 89                   | (14)                 |
| Foreign currency translation adjustment               | (6,075)              | (5,184)              |
| Accumulated remeasurements of defined benefit plans   | 1,594                | 1,479                |
| Total accumulated other comprehensive income          | 5,434                | 7,537                |
| Non-controlling interests                             | 3,434                | 2,354                |
| Total net assets                                      | 149,203              | 158,298              |
| Total liabilities and net assets                      | 227,975              | 245,585              |

## Consolidated Statements of Income

(Millions of yen)

|   | Fiscal year ended<br>March 31, 2021 | Fiscal year ended<br>March 31, 2022 |
|---|-------------------------------------|-------------------------------------|
| Net sales   | 139,363                             | 152,536                             |
| Cost of sales   | 100,590                             | 110,430                             |
| Gross profit  | 38,773                              | 42,105                              |
| Selling, general and administrative expenses                  | 28,793                              | 30,174                              |
| Operating profit  | 9,980                               | 11,930                              |
| Non-operating income  |                                     |                                     |
| Interest income   | 6                                   | 4                                   |
| Dividend income   | 685                                 | 768                                 |
| Share of profit of entities accounted for using equity method | 1,856                               | 3,063                               |
| Insurance income  | 381                                 | 98                                  |
| Foreign exchange gains  | 139                                 | 844                                 |
| Others  | 625                                 | 847                                 |
| Total non-operating income                                    | 3,695                               | 5,627                               |
| Non-operating expenses  |                                     |                                     |
| Interest expenses   | 256                                 | 279                                 |
| Others  | 674                                 | 766                                 |
| Total non-operating expenses                                  | 931                                 | 1,046                               |
| Ordinary profit   | 12,743                              | 16,512                              |
| Extraordinary income  |                                     |                                     |
| Gain on sales of investment securities                        | 124                                 | 33                                  |
| Gain on sales of non-current assets                           | 11                                  | 0                                   |
| Gain on exchange of subsidiaries' and affiliates' stock       | —                                   | 1,760                               |
| Other   | —                                   | 1                                   |
| Total extraordinary income                                    | 135                                 | 1,796                               |
| Extraordinary losses  |                                     |                                     |
| Loss on abandonment of non-current assets                     | 380                                 | 384                                 |
| Loss on sales of investment securities                        | 145                                 | 61                                  |
| Impairment loss   | 1,742                               | 148                                 |
| Provision for environmental measures                          | 633                                 | —                                   |
| One-hundredth anniversary commemorative expenses              | 97                                  | —                                   |
| Loss on compensation  | 431                                 | —                                   |
| Compensation for damages                                      | —                                   | 205                                 |
| Others  | 97                                  | 53                                  |
| Total extraordinary losses                                    | 3,527                               | 853                                 |
| Profit before income taxes                                    | 9,351                               | 17,455                              |
| Income taxes - current  | 2,922                               | 3,059                               |
| Income taxes - deferred                                       | (1,123)                             | 1,378                               |
| Total income taxes  | 1,798                               | 4,438                               |
| Profit  | 7,552                               | 13,016                              |
| Profit attributable to non-controlling interests              | 192                                 | 332                                 |
| Profit attributable to owners of parent                       | 7,360                               | 12,683                              |

## Consolidated Statements of Comprehensive Income

(Millions of yen)

|   | Fiscal year ended<br>March 31, 2021 | Fiscal year ended<br>March 31, 2022 |
|---|-------------------------------------|-------------------------------------|
| Profit  | 7,552                               | 13,016                              |
| Other comprehensive income  |                                     |                                     |
| Valuation difference on available-for-sale securities                             | 5,034                               | 1,446                               |
| Deferred gains or losses on hedges  | 108                                 | (172)                               |
| Foreign currency translation adjustment   | 735                                 | 645                                 |
| Remeasurements of defined benefit plans   | 2,023                               | (87)                                |
| Share of other comprehensive income of entities accounted for using equity method | (3,011)                             | 332                                 |
| Total other comprehensive income  | 4,889                               | 2,165                               |
| Comprehensive income  | 12,442                              | 15,182                              |
| (Breakdown)   |                                     |                                     |
| Comprehensive income attributable to owners of parent                             | 11,956                              | 14,786                              |
| Comprehensive income attributable to non-controlling interests                    | 485                                 | 395                                 |



## Consolidated Statements of Changes in Equity

Fiscal year ended March 31, 2021

(Millions of yen)

|  | Shareholders' equity |                 |                   |                 |                            |
|--|----------------------|-----------------|-------------------|-----------------|----------------------------|
|  | Share capital        | Capital surplus | Retained earnings | Treasury shares | Total shareholders' equity |
| Balance at beginning of period                       | 29,166               | 29,359          | 85,111            | (3,184)         | 140,453                    |
| Changes during period                                |                      |                 |                   |                 |                            |
| Dividends of surplus                                 |                      |                 | (2,645)           |                 | (2,645)                    |
| Profit attributable to owners of parent              |                      |                 | 7,360             |                 | 7,360                      |
| Purchase of treasury shares                          |                      |                 |                   | (4,837)         | (4,837)                    |
| Disposal of treasury shares                          |                      | 0               |                   | 2               | 2                          |
| Cancellation of treasury shares                      |                      | (4,680)         |                   | 4,680           | —                          |
| Transfer of retained earnings to capital surplus     |                      | 462             | (462)             |                 | —                          |
| Net changes in items other than shareholders' equity |                      |                 |                   |                 |                            |
| Total changes during period                          | —                    | (4,217)         | 4,252             | (154)           | (119)                      |
| Balance at end of period                             | 29,166               | 25,141          | 89,364            | (3,338)         | 140,334                    |

|  | 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                       | 4,959   | (163)                              | (3,491)                                 | (465)   | 838  | 3,147                     | 144,440          |
| Changes during period                                |   |                                    |   |   |  |                           |                  |
| Dividends of surplus                                 |   |                                    |   |   |  |                           | (2,645)          |
| Profit attributable to owners of parent              |   |                                    |   |   |  |                           | 7,360            |
| Purchase of treasury shares                          |   |                                    |   |   |  |                           | (4,837)          |
| Disposal of treasury shares                          |   |                                    |   |   |  |                           | 2                |
| Cancellation of treasury shares                      |   |                                    |   |   |  |                           | —                |
| Transfer of retained earnings to capital surplus     |   |                                    |   |   |  |                           | —                |
| Net changes in items other than shareholders' equity | 4,866   | 253                                | (2,584)                                 | 2,059   | 4,595  | 286                       | 4,882            |
| Total changes during period                          | 4,866   | 253                                | (2,584)                                 | 2,059   | 4,595  | 286                       | 4,763            |
| Balance at end of period                             | 9,825   | 89                                 | (6,075)                                 | 1,594   | 5,434  | 3,434                     | 149,203          |

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                    |
| Total impact from changes in accounting policy  |                      |                 | (394)             |                 | (394)                      |
| Balance at beginning of period following reflection of changes in accounting policy       | 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          |
| Total impact from changes in accounting policy  |   |                                    |   |   |  |                           | (394)            |
| Balance at beginning of period following reflection of changes in accounting policy       | 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          |

## Consolidated Statements of Cash Flows

(Millions of yen)

|  | Fiscal year ended<br>March 31, 2021 | Fiscal year ended<br>March 31, 2022 |
|--|-------------------------------------|-------------------------------------|
| Cash flows from operating activities                                 |                                     |                                     |
| Profit before income taxes   | 9,351                               | 17,455                              |
| Depreciation   | 7,662                               | 8,577                               |
| Amortization of goodwill   | 25                                  | 30                                  |
| Impairment loss  | 1,742                               | 148                                 |
| Share of loss (profit) of entities accounted for using equity method | (1,856)                             | (3,063)                             |
| Increase (decrease) in provision for bonuses                         | 970                                 | 441                                 |
| Increase (decrease) in allowance for doubtful accounts               | (3)                                 | (199)                               |
| Decrease (increase) in retirement benefit assets                     | (464)                               | (504)                               |
| Increase (decrease) in retirement benefit liabilities                | (155)                               | (257)                               |
| Increase (decrease) in provision for environmental measures          | 460                                 | (537)                               |
| Interest and dividend income   | (692)                               | (773)                               |
| Interest expenses  | 256                                 | 279                                 |
| Loss on abandonment of non-current assets                            | 390                                 | 404                                 |
| Gain on exchange of subsidiaries' and affiliates' stock              | —                                   | (1,760)                             |
| Loss (gain) on valuation of investment securities                    | 31                                  | 21                                  |
| Loss (gain) on sales of investment securities                        | 21                                  | 27                                  |
| Decrease (increase) in trade receivables                             | (1,205)                             | (6,802)                             |
| Decrease (increase) in inventories                                   | (1,271)                             | (2,579)                             |
| Increase (decrease) in trade payables                                | (1,185)                             | 4,149                               |
| Others   | 164                                 | 865                                 |
| Subtotal   | 14,243                              | 15,922                              |
| Interest and dividend received                                       | 1,456                               | 1,914                               |
| Interest paid  | (257)                               | (279)                               |
| Income taxes paid  | (1,621)                             | (3,012)                             |
| Cash flows from operating activities                                 | 13,821                              | 14,545                              |
| Cash flows from investing activities                                 |                                     |                                     |
| Purchase of property, plant and equipment                            | (11,924)                            | (11,357)                            |
| Proceeds from sales of property, plant and equipment                 | 31                                  | 2                                   |
| Purchase of intangible assets  | (789)                               | (349)                               |
| Purchase of investment securities                                    | (1,337)                             | (595)                               |
| Proceeds from sales of investment securities                         | 605                                 | 303                                 |
| Income from liquidation of affiliated companies                      | —                                   | 530                                 |
| Payment of loans receivable  | (276)                               | (72)                                |
| Collection of loans receivable                                       | 208                                 | 162                                 |
| Payments for retirement of property, plant and equipment             | (295)                               | (282)                               |
| Others   | 8                                   | 35                                  |
| Cash flows from investing activities                                 | (13,770)                            | (11,620)                            |
| Cash flows from financing activities                                 |                                     |                                     |
| Net increase (decrease) in short-term borrowings                     | 1,393                               | 682                                 |
| Proceeds from long-term borrowings                                   | 9,863                               | 2,532                               |
| Repayment of long-term borrowings                                    | (1,539)                             | (1,992)                             |
| Dividends paid   | (2,636)                             | (3,504)                             |
| Purchase of treasury shares  | (4,844)                             | (1,236)                             |
| Dividends paid to non-controlling interests                          | (198)                               | (39)                                |
| Purchase of subsidiaries' treasury shares                            | —                                   | (904)                               |
| Others   | (313)                               | (340)                               |
| Cash flows from financing activities                                 | 1,722                               | (4,802)                             |
| Effect of exchange rate change on cash and cash equivalents          | 278                                 | 523                                 |
| Net increase (decrease) in cash and cash equivalents                 | 2,053                               | (1,355)                             |
| Cash and cash equivalents at beginning of period                     | 17,200                              | 19,253                              |
| Cash and cash equivalents at end of period                           | 19,253                              | 17,898                              |

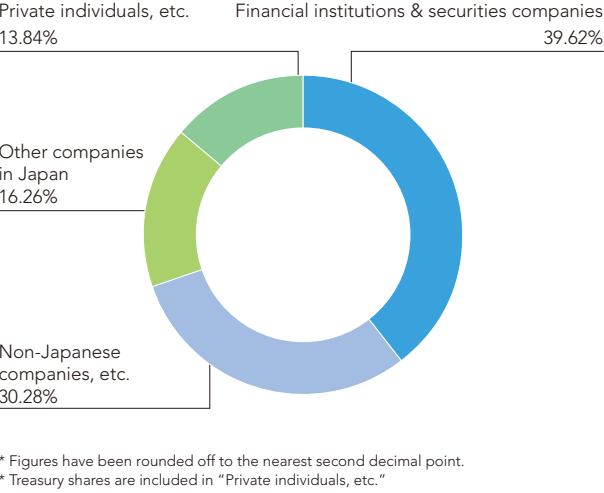
# Company Information / Shareholder and Investor Information

(As of March 31, 2022)

## Corporate Profile

|   |  |
|---|--|
| Name:   | Nippon Soda Co., Ltd.  |
| Head Office:                                    | 2-2-1, Ohtemachi, Chiyoda-ku, Tokyo<br>100-8165, Japan   |
| Tel:  | +81-3-3245-6054  |
| Representative:                                 | Eiji Aga<br>Representative Director, President   |
| Established:                                    | February 1920  |
| Share capital:                                  | ¥29,166 million  |
| Fiscal year end:                                | March  |
| Number of employees:                            | 2,785 (consolidated)<br>1,395 (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:                  | 28,811,707 shares<br>(Includes 881,698 shares of treasury stock)   |
| Number of shareholders:                         | 13,462<br>(312 more than March 31, 2021)   |
| Fiscal year:                                    | April 1 to March 31  |
| Annual general meeting of shareholders:         | June of each year  |
| Dividend record dates:                          | Year-end dividend: March 31<br>Interim dividend: September 30  |
| Shareholder registrar:                          | Mizuho Trust & Banking Co., Ltd.<br>1-3-3, Marunouchi, Chiyoda-ku, Tokyo   |
| Handling office:                                | Stock Transfer Agency Department of the Head Office of Mizuho Trust & Banking Co., Ltd.<br>1-3-3, Marunouchi, Chiyoda-ku, Tokyo<br><br>Contact:<br>Stock Transfer Agency Department<br>Mizuho Trust & Banking Co., Ltd.<br>2-8-4 Izumi, Suginami-ku, Tokyo,<br>Japan 168-8507<br>Tel.: 0120-288-324<br>(toll-free within Japan only) |

## Share Distribution by Type of Shareholder



## Major Shareholders

| Name of shareholder                                  | Number of shares held (Thousands of shares) | Shareholding ratio (%) |
|--|---|------------------------|
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 3,612                                       | 12.93                  |
| JP MORGAN CHASE BANK 385632                          | 1,549                                       | 5.55                   |
| Custody Bank of Japan, Ltd. (Trust Account)          | 1,456                                       | 5.21                   |
| Mitsui & Co., Ltd.                                   | 1,015                                       | 3.63                   |
| Nippon Soda Client Shareholding Association          | 989   | 3.54                   |
| The Norinchukin Bank                                 | 884   | 3.17                   |
| Mizuho Bank, Ltd.                                    | 816   | 2.92                   |
| Sompo Japan Insurance Inc.                           | 513   | 1.84                   |
| JP MORGAN CHASE BANK 380684                          | 507   | 1.82                   |
| DFA INTL SMALL CAP VALUE PORTFOLIO                   | 483   | 1.73                   |

Note 1: The Company holds 881,698 shares of treasury stock. They are not included in the list of major shareholders above. Treasury shares do not include the 68,140 shares held by the share benefit trust for officers.  
Note 2: The calculation of shareholding ratio does not include treasury shares.

## Group Companies

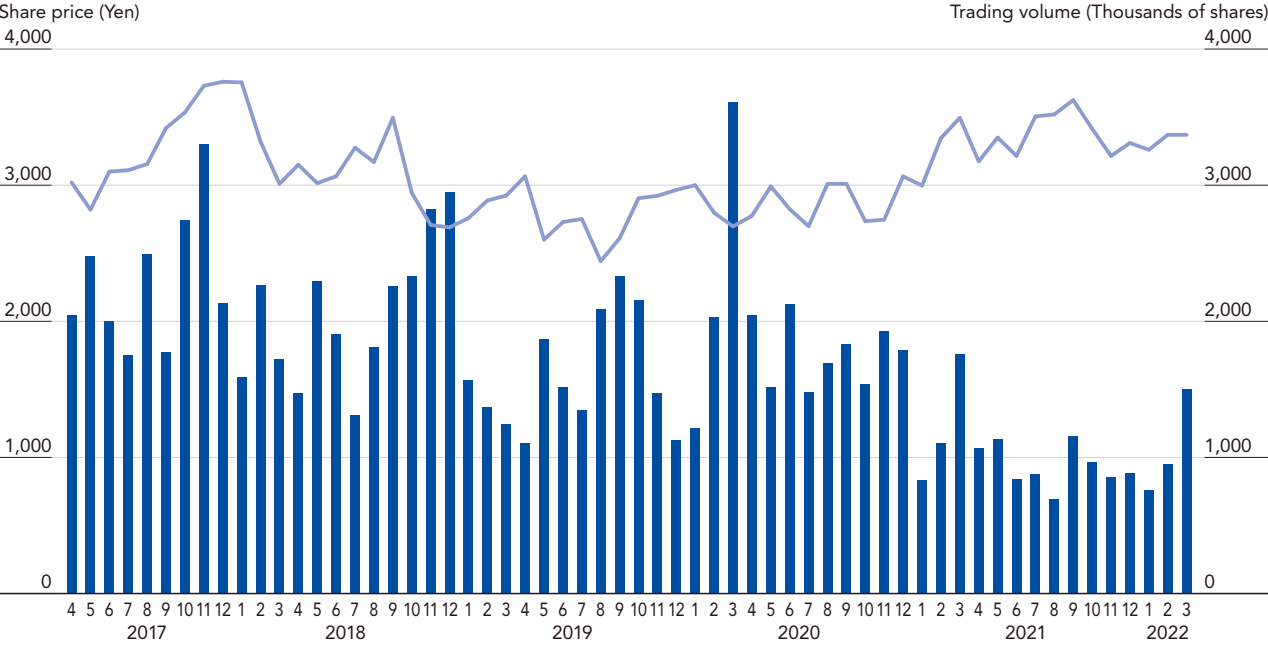
### Consolidated subsidiaries

- **Chemicals**  
Nisso Fine Co., Ltd.  
Shin Fuji 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**  
Nisso Engineering Co., Ltd.
- **Civil engineering and construction**  
Nisso Kensetsu Co., Ltd.

- **Overseas**  
NISSO AMERICA INC.  
NISSO CHEMICAL EUROPE GmbH  
Nisso Namhae Agro Co., Ltd.  
Alkaline SAS, and four other companies

**Affiliated companies accounted for by the equity method**  
NOVUS INTERNATIONAL, INC.  
IHARABRAS S/A. INDÚSTRIAS QUÍMICAS

## Share Price and Trading Volume



|   | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|---|---------|---------|---------|---------|---------|
| Profit attributable to owners of parent (Billions of yen) | 6.38    | 5.80    | 6.76    | 7.36    | 12.68   |
| Total dividends (Billions of yen)                         | 1.82    | 1.82    | 2.40    | 3.13    | 5.03    |
| Dividend payout ratio (%)                                 | 28.4    | 31.2    | 35.7    | 43.1    | 39.6    |
| Purchase of treasury shares (Billions of yen)             | —       | —       | 0.94    | 4.83    | 1.23    |
| Total return ratio (%)                                    | 28.4    | 31.2    | 49.4    | 108.2   | 49.3    |

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/>

**CSR Information**  
<https://www.nippon-soda.co.jp/e/environment/>

**Investor Relations**  
[https://www.nippon-soda.co.jp/e/financial\\_fact/](https://www.nippon-soda.co.jp/e/financial_fact/)