Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

Nippon Soda Group

CSR Report 2017

Corporate Social Responsibility Report

Nisso NIPPON SODA CO.,LTD.

NISSO

To Create New Value through the Power of Chemistry and Contribute to Achieving a Sustainable Society through Products as a Chemical Group Company

Priority issues addressed by the Nippon Soda Group

- Contribution to ensuring food safety and security and sustainable agriculture using agrochemicals
- Contribution to ensuring health for all people through pharmaceuticals
- Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)
- Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials

Editorial Policy

The CSR Report 2017 describes the results of corporate social responsibility (CSR) activities implemented by the Nippon Soda Group. In this report, our CSR principles and efforts are organized from the following three perspectives: CSR activities to improve corporate value, CSR activities to protect corporate value, and social activities. With a focus on transparency and accountability, we have designed this report to help readers understand the Nippon Soda Group's CSR activities. As with the previous report, the CSR Report 2017 complies with the GRI G4 guidelines. (See the GRI Correspondence Table on pages 95 to 97.)

Publication Date

September 2017
(Next report scheduled to be issued in September 2018)

Guidelines Used as References

Global Reporting Initiative: G4
The Japanese Ministry of the Environment's Environmental Reporting Guidelines 2012
Japanese Standards Association ISO 26000: 2010 Guidance on Social Responsibility

Scope of the Report

This report summarizes CSR and RC activities of Nippon Soda Co., Ltd. and major Nippon Soda Group companies (three manufacturing group companies: Nisso Metallochemical Co., Ltd., Nisso Fine Co., Ltd. and Shinfuji Kaseiyaku Co., Ltd.; and five non-manufacturing group companies: Nisso Shoji Co., Ltd., Sanwa Soko Co., Ltd., Nisso Engineering Co., Ltd., Nisso Construction Co., Ltd. and Nisso Green Co., Ltd.).

This report provides the actual results for fiscal 2017 (April 1, 2016 to March 31, 2017). The data on occupational accidents presented in this report are based on the actual results from January 1, 2016 to December 31, 2016. The financial data covers 19 consolidated subsidiaries and four equity-method affiliates. For a list of major companies, please refer to "Brief Introduction to the Nippon Soda Group" on pages 5 and 6.

Responsible Care

Responsible Care (RC) was launched in 1985 in Canada. The International Council of Chemical Associations (ICCA) was established in 1989 and, as of January 2017, more than 44 countries and regions around the world participate in the Responsible Care initiative. In Japan, the Japan Responsible Care Council (JRCC) was established in 1995 under the Japan Chemical Industry Association (JCIA) by 74 companies, most of which manufacture and handle chemical substances, with the aim of standardizing and augmenting environmental and safety activities that were previously conducted by individual companies as well as raising public awareness of RC activities. The JRCC became the "JCIA RC Committee" in May 2012. As of March 2017, the committee has a membership of 108 companies. The aim of RC activities can be summed up as follows: To do what is ethically right and to implement proactive measures to reduce risks.

International Standards Certifications

■ISO 14001 is the international standard of the International Organization for Standardization (ISO) for environmental management systems (EMS). It specifies requirements for an environmental management system.
■ISO 9001 is the international standard of the International Organization for Standardization (ISO) for quality management systems (QMS). It specifies requirements to enhance customer satisfaction, including quality assurance.
■OHSAS 18001, the abbreviation of Occupational Health and Safety Assessment Series 18001, is the international standard for occupational safety and health management systems (OSHMS). The objective of OHSAS 18001 is to help companies reduce risks and the recurrence of problems by identifying risks related to occupational safety and employee hygiene, developing preventive measures, and implementing such measures (achieving continuous improvement).
■ISO 26000 is an international standard on social responsibility for organizations released by the International Organization for Standardization on November 1, 2010.

Contents

Nippon Soda will celebrate the 100th anniversary of its founding in 2020. To ensure the company's sound development, we have detailed the ideal company that Nippon Soda aims to become by 2020 in the "Chemigress to 100," a long-term vision. In the new medium-term business plan developed in May 2017, we set goals to "further develop CSR management" with an emphasis on CSR activities to improve corporate value in the domains of agriculture, medicine, environment and information.

More specifically, our efforts will be primarily focused on the following: helping to ensure food safety and security as well as sustainable agriculture through agrochemicals in the agriculture domain; ensuring health for all people through pharmaceuticals in the medicine domain; ensuring the sound recycling of water and waste through chemical and technical competence in the environment domain; and ensuring the development of information appliances friendly to the environment and people by supplying high-function materials in the information domain.

Nippon Soda will continue its efforts to contribute to achieving a sustainable society with our priority on communication and dialogue with stakeholders.

Nippon Soda's business and CSR management

There have been rapidly increasing efforts by the international community to achieve a sustainable society, such as, for example, the adoption of the Sustainable Development Goals (SDGs) by the United Nations in September 2016. In response to this recent change in the social, economic and environmental landscape, Nippon Soda is implementing the new medium-term business plan (FY 2018 – 2020). The goals of this three-year plan are to become, by the company's centennial anniversary, the ideal company specified in the long-term vision "Chemigress to 100," and to enhance financial standing to further increase the value of our business. With a major emphasis on "increasing business earning power" and "creation of new businesses," we will focus our efforts on expanding our existing businesses, creating new ones, promoting development and strengthening the Group's business foundation. The final goal to achieve is an operating margin of at least 6.5% (at least 8.0% when trading business is excluded) and ordinary profit of 13 billion yen. We are also planning to invest 50 billion yen during the three-year period for future growth.

The new medium-term business plan also emphasizes the "further development of CSR management" in order to integrate CSR activities into the running of the company. For this purpose, corporate resources will be primarily allocated to the following four priority fields: agriculture, health care, environment and information. As a chemical company oriented toward providing products and technologies useful in addressing social issues in international settings, we make particular efforts to ensure the compliance of business activities with laws, rules, regulations and corporate ethics based on the Corporate Governance Code, and also to further improve the corporate governance system in such a way as to meet stakeholders' expectations.

CSR activities to protect corporate value and CSR activities to improve corporate value

Efforts in the "further development of CSR management," one of the priority activities in the new medium-term business plan, will be focused on creating sustainable value as a chemical company sought after by society through balanced implementation of CSR activities to protect corporate value and CSR activities to improve corporate value.

Nippon Soda's involvement in society has been based on responsible care (RC) activities implemented since 1998. Since the adoption in 2012 of the concept of social responsibility defined in the ISO 26000 international standards for corporate social responsibility, we have been expanding the scope of our social responsibilities in business activities. We divide CSR activities to protect corporate value into eight categories, including environmental protection, process safety & disaster prevention/BCP, and chemicals and product safety. In these categories, we, as a company dealing with a wide variety of chemicals, are promoting activities to minimize negative impacts that affect safety, the environment and quality.

CSR activities to improve corporate value are a material issue to Nippon Soda, which aims to make a greater than ever contribution to society through its CSR activities to protect corporate value. To improve corporate value, we will create business projects that are designed to maximize positive impacts caused by Nippon Soda as a chemical company so as to be beneficial to society. In these projects, the 17 Sustainable Development Goals (SDGs) will be taken into account. More specifically, our efforts in the agriculture domain are focused on increasing food production through proper use of agrochemicals to address the worldwide population increase.

In the environment domain, we provide Hi-chlon, a water treatment agent with high functionality, to various regions in Europe, the Middle East and Asia to help ensure a stable supply of water resources. To address such global social issues as described in the SDGs, we believe that simultaneous improvement efforts among companies throughout the world in their individual business projects will lead us toward the achievement of a sustainable society.

As a company contributing to realizing a sustainable society

Efforts to develop products and services that contribute to addressing social issues in the international community will be focused on research and development in the materiality domain. We also aim to expand our business into new fields by effectively using our own technologies with distinctive features. To achieve this aim, our research and development system will be improved through selection and concentration on the following business areas: cellulose derivatives, functional polymers, color developers for thermal paper, and environment-related chemicals. We will provide products that help realize the dreams of the next generation and build a sustainable society so as to increase our global presence as a chemical company that contributes to social development.

To fulfill the abovementioned goals, we need to transform into a corporate group that values diversity. In 2016, we developed the Diversity Policy. By using this policy as a growth strategy, we will promote the development of human resources who are trained and ready to take on challenging opportunities to create new business projects as well as promote the creation of workplaces that all employees can enjoy working in. As a company dedicated to addressing global social issues, we will foster and strengthen a corporate culture that will help employees enjoy their work and workplace.

Nippon Soda will continue its efforts to build a sustainable society as a globally competitive chemical company that helps realize the dreams of the next generation and creates innovations to address various social issues, such as those related to food, health and the environment.

Note: Please refer to page 12 for the ideal company specified in the long-term vision "Chemigress to 100."

A Chemical Company Sought After by Society

Fulfilling the Dreams of the Next Generation

Since its foundation in 1920, Nippon Soda has committed itself to fulfilling its social responsibilities as a chemical company for ensuring safety, improving quality and protecting the environment. By developing and providing useful products and technologies that meet people's expectations, the company aims to build harmonious relationships with local communities and contribute to healthy social development.

Brief Introduction to the Nippon Soda Group

(as of March 31, 2017)

Business Sites

1. Tokyo Head Office
2. Osaka Branch Office

Plants

3. Nihongi Plant
4. Takaoka Plant
5. Mizushima Plant
6. Chiba Plant

Research Centers

7. Odawara Research Center
8. Haibara Field Research Center
9. Bandai Field Research Station
10. Chiba Research Center

Sales Offices

11. Sapporo Office
12. Sendai Office
13. Kanto Office
14. Nagoya Office
15. Shinetsu Office
16. Takaoka Office
17. Matsuyama Office
18. Fukuoka Office
19. Bangkok Representative Office

Group Companies in Japan

Chemicals

- a. Nisso Fine Co., Ltd.
- b. Shinfuji Kaseiyaku Co., Ltd.
- c. NISSO BASF Agro Co., Ltd.
- d. Nisso Metallochemical Co., Ltd.
- e. Joetsu Nisso Chemical Co., Ltd.
- f. Nisso Green Co., Ltd.

Logistics

- g. Sanwa Soko Co., Ltd.
- h. Sanso Unyu Co., Ltd.

Trading

- i. Nisso Shoji Co., Ltd.

Engineering

- j. Nisso Engineering Co., Ltd.

R&D Consultants

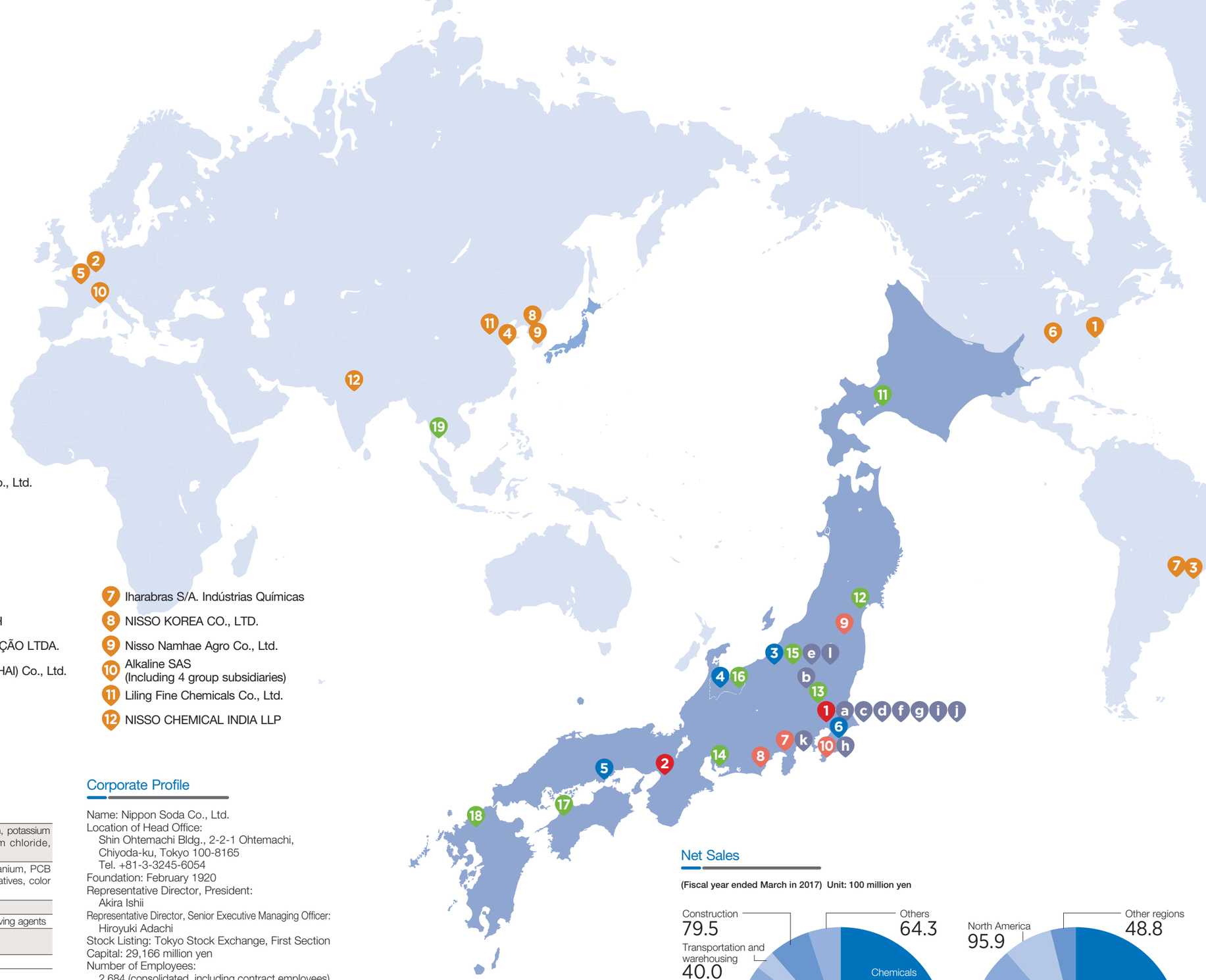
- k. Nisso Chemical Analysis Service Co., Ltd.

Civil Engineering and Construction

- l. Nisso Kensetsu Co., Ltd.

Overseas Group Companies

1. NISSO AMERICA INC.
2. NISSO CHEMICAL EUROPE GmbH
3. NISSO BRASILEIRA REPRESENTAÇÃO LTDA.
4. NIPPON SODA TRADING (SHANGHAI) Co., Ltd.
5. Certis Europe B.V.
6. Novus International, Inc.
7. Iharabras S/A. Indústrias Químicas
8. NISSO KOREA CO., LTD.
9. Nisso Namhae Agro Co., Ltd.
10. Alkaline SAS (Including 4 group subsidiaries)
11. Liling Fine Chemicals Co., Ltd.
12. NISSO CHEMICAL INDIA LLP



Nippon Soda Group's Business

■ Chemicals Business Division

Industrial chemicals	Caustic soda, liquid chlorine, hydrochloric acid, caustic potash, potassium carbonate, soda cyanide, potassium cyanide, aluminum chloride, phosphorus oxychloride, phosphorus trichloride
Chemical products	Metallic sodium, special isocyanates, alcoholate, organotitanium, PCB detoxification treatment agents, various kinds of sulfur derivatives, color developers
Functional materials	NISSO-PB, VP-Polymer, Titabond, Bistraiter
Eco-care products	Nisso Hi-chlon, Nisso Merusan, Take-One, HIDION, slime removing agents
Pharmaceuticals and pharmaceutical intermediates	HPC, DAMN, faropenem sodium
Fungicides for industrial use	Pesticides, Biocut, Millcut

■ Agro Products Division

Fungicides	Topsin M, Befran, Bellkute, Trifmine, Pancho, Agrocare, Masterpiece, Fantasista, Ethofin, Monsieur Bordeaux
Insecticides and acaricides	Mospilan, Nissorun, Romdan, Kotetsu, Phoenix, Vermark
Herbicides	Nabu, Hoenest, Clethodim, Eigen, Conclude, Alphard
Others	Smoking agents

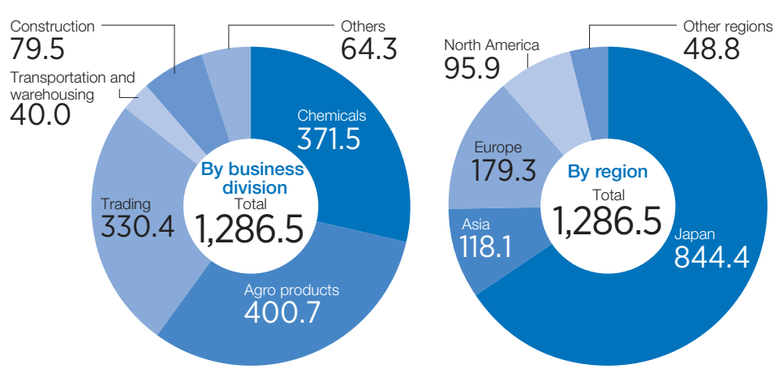
■ Trading Chemicals, functional products, synthetic resins, industrial devices, construction-related products
■ Transportation and Warehousing Warehousing and transportation services
■ Construction Plant construction, civil engineering and construction
■ Others Non-ferrous metals business, environmental development business, etc.

Corporate Profile

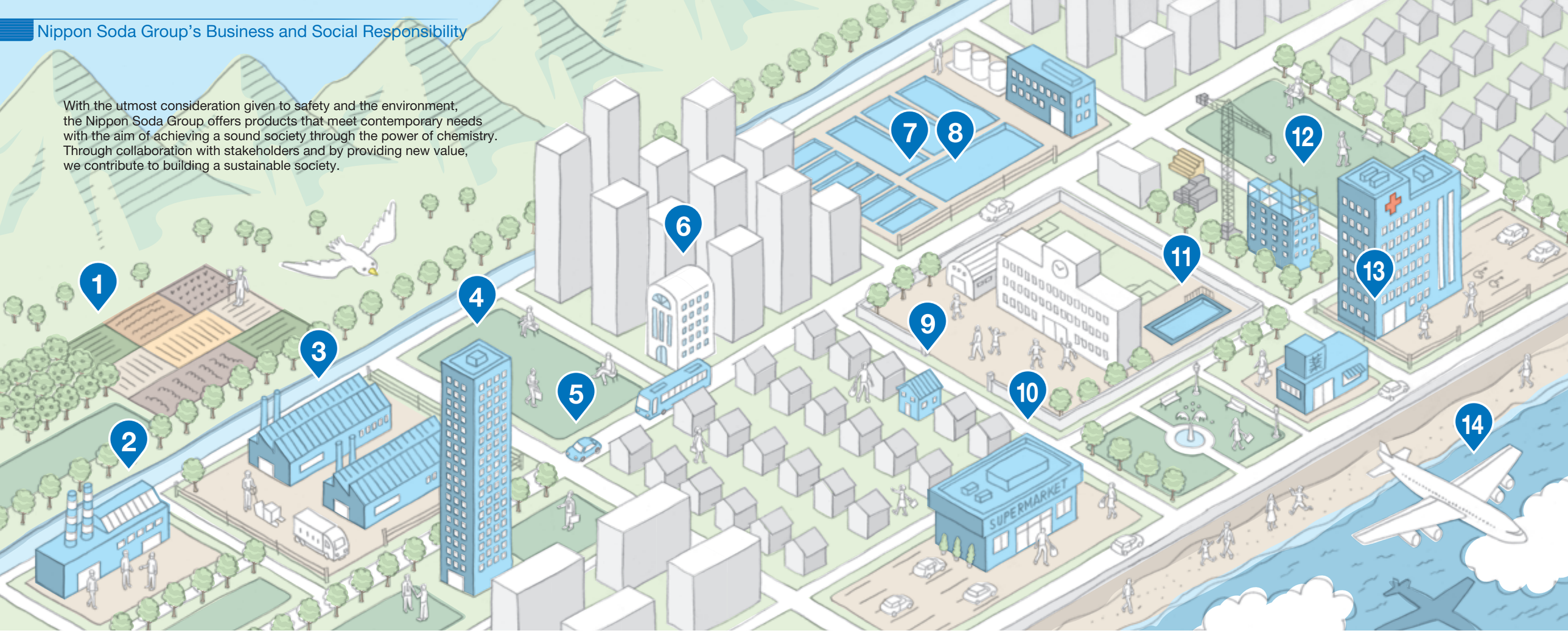
Name: Nippon Soda Co., Ltd.
Location of Head Office:
Shin Ohtemachi Bldg., 2-2-1 Ohtemachi, Chiyoda-ku, Tokyo 100-8165
Tel. +81-3-3245-6054
Foundation: February 1920
Representative Director, President:
Akira Ishii
Representative Director, Senior Executive Managing Officer:
Hiroyuki Adachi
Stock Listing: Tokyo Stock Exchange, First Section
Capital: 29,166 million yen
Number of Employees:
2,684 (consolidated, including contract employees)
1,290 (non-consolidated, including contract employees)
Business Description:
Manufacturing, processing and marketing of caustic soda, potassium products, chlorine and chlorine products, synthetic resin, dyes, pharmaceuticals and pharmaceutical intermediates, agrochemicals, and various other kinds of chemical industrial products

Net Sales

(Fiscal year ended March in 2017) Unit: 100 million yen



With the utmost consideration given to safety and the environment, the Nippon Soda Group offers products that meet contemporary needs with the aim of achieving a sound society through the power of chemistry. Through collaboration with stakeholders and by providing new value, we contribute to building a sustainable society.



1 Farms	Fungicides	Tiophanile-methyl, Agrocare, Masterpiece, Cyflufenamid, Triflumizole
	Insecticides and acaricides	Acetumiprid, Tebufenozide,
	Herbicides	Sethoxydim
2 Waste treatment facilities	Fly ash from waste incineration	HIDION
	PCB treatment	Sodium dispersion (SD) agents
3 Plants	Industrial chemicals	Caustic soda, Hydrochloric acid, etc.
4 Offices	Smartphones	NISSO-PB
	Semiconductors	VP-Polymer (Photo resist base resin)
		NISSOCURE
	Paper	Caustic soda
	Toilets	TAKE-ONE
5 Automobiles	Seats	Phosphorus oxychloride
	Oil seals	TODI (Specialized polyurethane raw materials)
6 Exterior walls	Coating	BISTRATOR
7 Water purification plants	Tap water	NISSO HI CHLON Sodium hypochlorite
8 Sewage treatment plants	Sewage	NISSO HI CHLON
9 Houses	LCD television	NISSO-PB
	Laundry detergent	Potassium carbonate
	Battery	Caustic soda, Caustic potash
	Kitchen	Slime removing agents
10 Supermarkets	Food packages	TITA BOND
	Receipt/label	D-8, D-90
11 Schools	Swimming pools	NISSO HI CHLON
12 Building materials	Lumber	Millcut
	Adhesive agents, paints, sealants	Biocut NISSO-PB Organotitanium
	Plating	Potassium cyanide, Soda cyanide
13 Hospitals/ drugstores	Medicines	NISSO HPC (hydroxypropyl cellulose) NISSO DAMN (diaminomaleonitrile)
14 Airplanes	Engine parts	Polysilane

History of the Nippon Soda Group

1913 ●The founder, Tomonori Nakano, received a patent for the production of caustic soda via electrolysis.

1920 ●Nippon Soda Co., Ltd. established. (Capital of ¥750,000)
●The Nihongi Plant started operation.

1934 ●The Takaoka Plant started operation.

1949 ●Listed on the Tokyo Stock Exchange.

1954 ●Awarded the 4th Deming Application Prize for improvement in quality management.

1959 ●The Biological Research Laboratory established in Oiso Town, Kanagawa Prefecture. (Merged into the Odawara Research Center in 1984.)

1964 ●Received the 10th Okochi Memorial Technology Award for TDI.

1969 ●The fungicide Topsin developed and put into production.
●The Mizushima Plant started operation.
●The Agrochemical Synthesis Research Laboratory established in Odawara City, Kanagawa Prefecture. (Later reorganized into the Fine Chemical Laboratory.)

1971 ●NISSO-PB received the Award of the Society of Polymer Science.

1976 ●Topsin and Topsin M received the 22nd Okochi Memorial Award and Prime Minister's Award.

1984 ●The R&D Laboratory for Specialty Chemicals established. (Name changed in 2010 to the Chiba Research Center.)
●The Biological Research Laboratory and Fine Chemical Laboratory integrated to form the Odawara Research Center.

1985 ●Kusagard and Nabu received the 31st Okochi Memorial Award and the Pesticide Science Society of Japan's Achievement Award.
●Nissorun, an acaricide, developed and put into production.

1986 ●Trifmine, a fungicide, developed and put into production.
●Plant completed for manufacturing sodium hydroxide using the ion-exchange membrane method.

1995 ●Mospilan, an insecticide, developed and put into production.
●Manufacture of BBP, an intermediate of anti-AIDS agents, started.
●Acquired ISO 9001 certification.

1997 ●New generation faropenem sodium antibiotic jointly developed with Suntory Ltd. and Yamanouchi Pharmaceutical Co., Ltd. and put into production.

1998 ●Started responsible care activities.

1999 ●Nisso Kasei Co., Ltd. merged to establish the Chiba Plant.

2000 ●Acquired ISO 14001 certification.

2004 ●The agrichemical operation of Dainippon Ink and Chemicals (the present DIC) transferred to Nippon Soda.

2005 ●Manufacturing plant for color developer D-90 constructed in December 2005. Acquired OSHMS 18001 certification.

2009 ●The Processing Technology Center constructed at the Chiba Research Center.

2010 ●Purchased tebufenozide insecticide business from Dow AgroSciences (DAS).

2011 ●Nisso Namhae Agro Co., Ltd. (NNA), an overseas affiliated company in South Korea, established.

2012 ●Launched CSR activities.
●Acquired Alkaline SAS, a French chemical company.
●Production capacity of pharmaceutical excipient HPC increased.
●A representative office opened in Thailand.

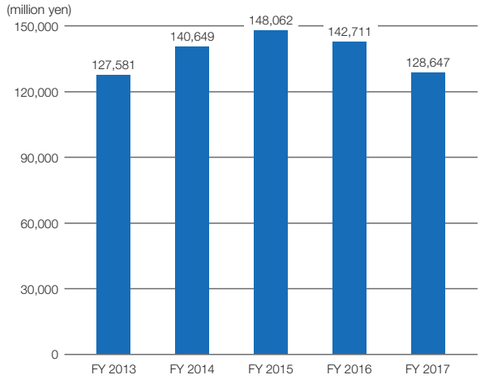
2013 ●The Topsin Plant of Nisso Namhae Agro Co., Ltd. started operation.

2016 ●Invested in Summit Agro Vietnam LLC to establish an agrochemical distribution company.

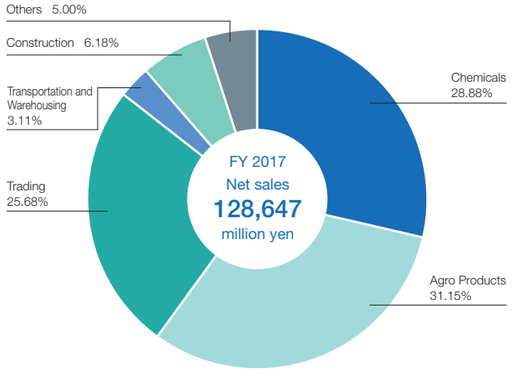
2017 ●Production capacity of VP-Polymer, a semiconductor photoresist material, increased. (Construction scheduled to be completed in 2018.)
●A business office established in India.

Consolidated Financial Highlights

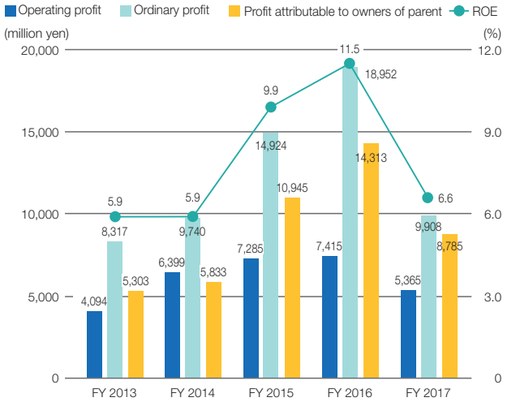
Change in consolidated net sales



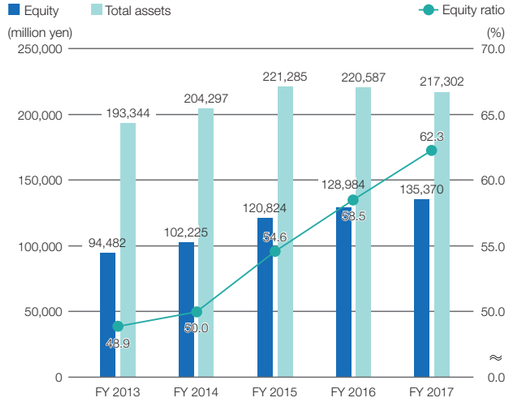
Sales composition



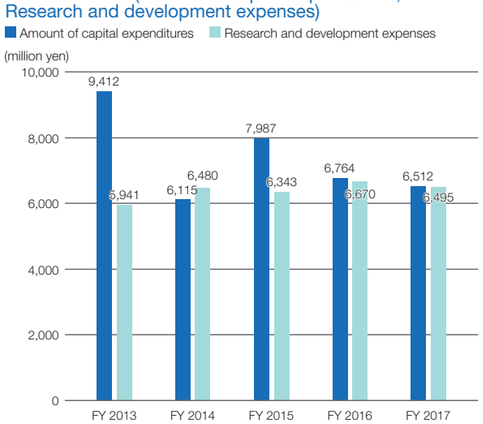
Profitability indices (Operating profit, ordinary profit, profit attributable to owners of parent)



Soundness indices (Equity, Total assets, Equity ratio)



Growth indices (Amount of capital expenditures, Research and development expenses)



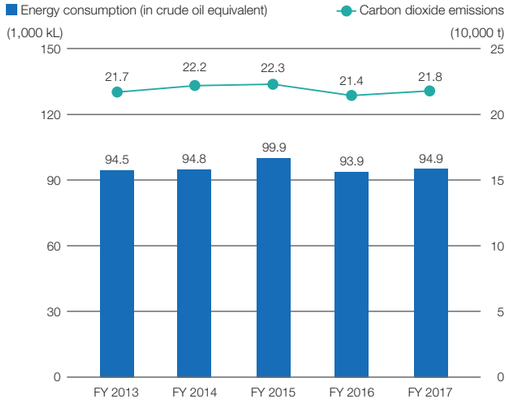
Number of consolidated companies

(FY)	2013–2015	2016	2017
Consolidated subsidiaries	19	18	18
Equity-method subsidiaries	0	0	0
Equity-method affiliates	4	4	5

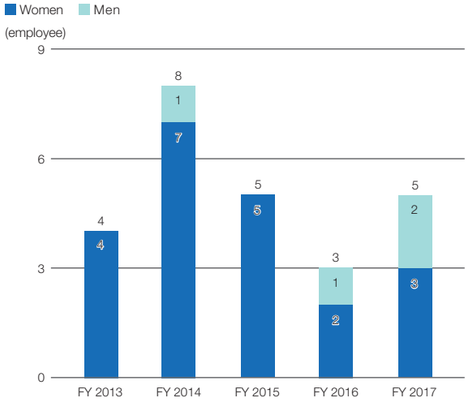
CSR Indices

Note: The figures for the CRS indices are those of Nippon Soda Co., Ltd. alone.

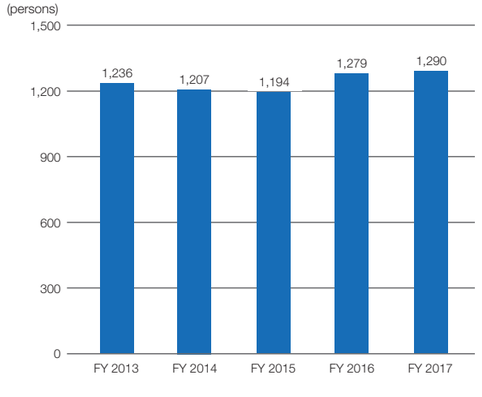
Changes in energy consumption and carbon dioxide emissions



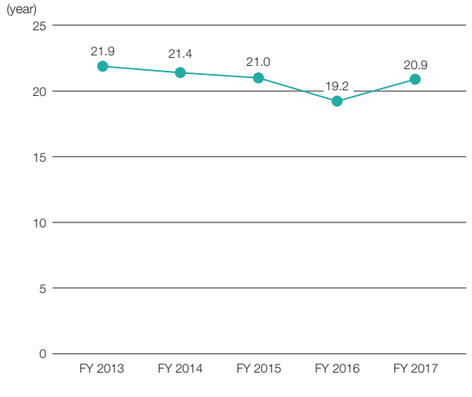
Change in the number of employees who took maternity/ child care leave



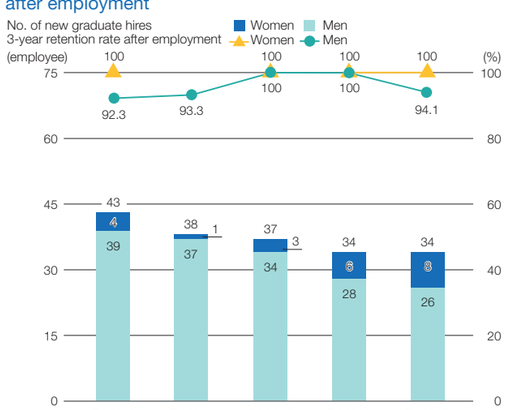
Number of employees



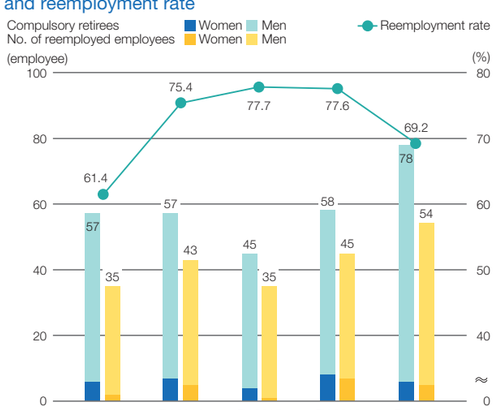
Average length of service of employees



Number of new graduate hires and 3-year retention rate after employment



Compulsory retirees / Number of reemployed employees and reemployment rate



Business and CSR of the Nippon Soda Group

Founding spirit

The company emblem for Nippon Soda depicts a white hare, surrounded by a hexagonal snowflake. The six sides of this snowflake represent the following: honesty, industriously, originality & ingenuity, cooperation, service and thanksgiving. The white color of the hare and the snowflake represent virtue and a high level of purity.

Basic principles of management

Nippon Soda places primary importance on sound and transparent business management in compliance with law. Its management philosophy is to contribute to social development through chemistry, to meet expectations from stakeholders, including shareholders, business partners, employees and local communities, and to promote environmentally conscious business practices and activities. Under this philosophy, Nippon Soda is committed to growing into a technology-oriented group that develops high value-added products by making best use of its proprietary technologies and expands its business internationally with a focus on chemistry. We also strive to enhance the Group's revenue by developing our businesses with a focus on the chemicals industry in such areas as commercial distribution, logistics and engineering.

Basic concept of CSR

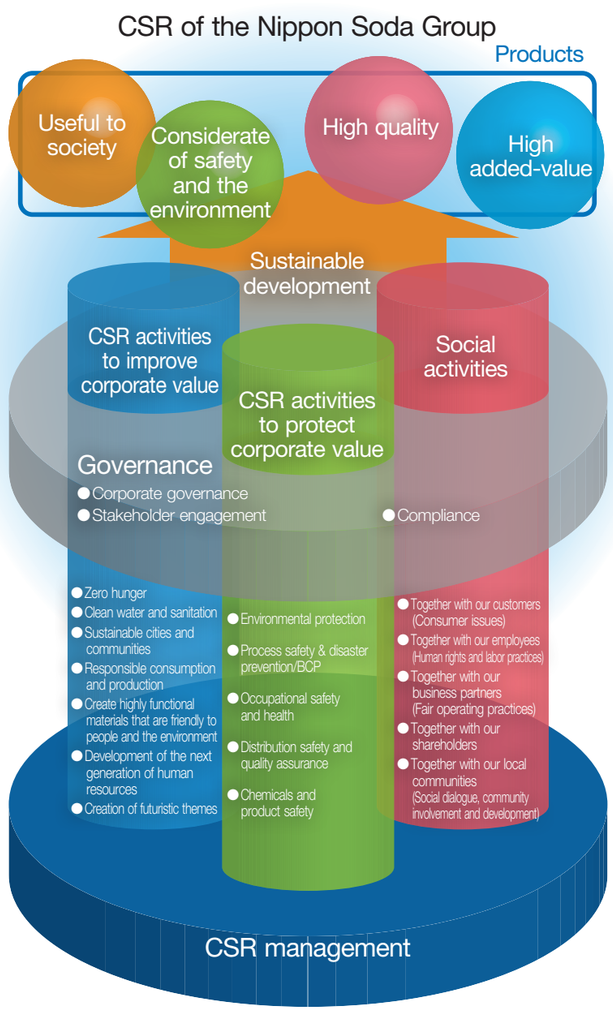
The Nippon Soda Group is working to improve its corporate value by creating new value through the power of chemistry and contributing to society through products as a chemical group. In this way, we strive to contribute to the enrichment of people's lives, and to resolve the problems affecting our society and our global environment. To achieve this, we are advancing the following initiatives.

1. **CSR activities to protect corporate value**[1]
   Pursuit of economic performance, and activities to ensure safety, environmental friendliness, quality assurance, etc.
2. **CSR activities to improve corporate value**[2]
   Making contributions through our business toward resolving social issues so as to help achieve the development of a sustainable society
3. **Social activities**
   Social contributions
4. **Governance**
   Corporate governance

We are advancing our CSR activities with consideration for the interests of all of our different stakeholders, including shareholders, employees, business partners and local communities. Through these efforts, the Group seeks to play a significant role in realizing sustainable development of our society. At the same time, the Nippon Soda Group is continuing its own development as sought-after chemical group that meets 21st-century social needs by consistently offering creative and unique technologies and products that will contribute to the creation of an enriching society that is able to realize the dreams of the next generation.

1, 2. For more information, please see the glossary on page 92.

CSR of the Nippon Soda Group



Summary of the new medium-term business plan (FY 2018 – FY 2020)

The Nippon Soda Group has established a new medium-term business plan (FY 2018 – FY 2020) setting out its new business goals. As the final stage of efforts for our long-term vision, "Chemigress to 100," we are pushing forward with our growth strategies already deployed and advanced and are developing a strong corporate foundation toward further improving our corporate value beyond our 100th anniversary in 2020.

Basic goals of the new medium-term business plan

"Increase business earning power" and "Create new businesses"

- Expansion of existing businesses centered on growth drivers
- Creation of new businesses and promotion of development
- Enhancement of the Group's business foundation
- Further development of CSR management

Aim for 2020

Long-term vision "Chemigress to 100"
(2011–2020)

1. Focus mainly on areas essential for the development of a sound society, such as agriculture, medicine, the environment and information, and provide a constant stream of new safe and useful products and businesses, thereby making tremendous contributions to society.
2. Increase our presence and indispensability on the international stage as a chemistry-oriented business group that is conscious of the global environment and CSR.
3. Form a globally competitive corporate group that is highly motivated and ready to take on challenges and enhance the comprehensive value of the entire Group so as to make enormous progress.

Snapshot of the Nippon Soda Group to the 100th anniversary and beyond

The Group envisions advancing to a new stage of growth by reinforcing the business foundation under the new medium-term business plan period.

Basic goals of the new medium-term business plan

Management indices	Numerical target (FY 2020)	FY 2017 (Results)
Operating margin	6.5% or more (8.0% or more when excluding Trading Business)	4.2%
Ordinary profit	¥13.0 billion	¥9.9 billion
ROE[3]	7.0% or more	6.6%
Investment (in 3 years)	¥50.0 billion (Growth investment = ¥10.0 billion Maintenance and upgrade investment = ¥20.0 billion M&As, etc. = ¥20.0 billion)	

New medium-term business plan

Final stage of the long-term vision, "Chemigress to 100"

- Increase business earning power
  - Expansion of existing businesses
  - Creation of new businesses and promotion of development
- Create new businesses
  - Enhancement of the Group's business foundation

100th anniversary and beyond

Advance to new stage of growth

- Agro products: Significantly improve profitability through innovation and strengthening of product portfolio centered on new agrochemicals
- Chemicals: Continually increase share of high-value-added products among product composition

3. Each department will improve ROIC (return on invested capital) by continually improving profitability and efficiency, thereby improving ROE (return on equity) of the entire Group.

Further development of CSR management

Balanced implementation of "CSR activities to protect corporate value" and "CSR activities to improve corporate value"

CSR activities to protect corporate value

- Sound and transparent business management to contribute to the development of society
- Further enhance our corporate governance practices
  - ▶ Become a company trusted by all stakeholders
- Initiatives to sustain and improve community- and environment-conscious "Nisso Safety" and "Nisso Quality"
- Promotion of diversity, work-life balance, career vision and succession plans (preparation for future leaders)
  - ▶ Acceptance of diversity, become rewarding workplace that employees can be proud of
  - ▶ Increasing value of personnel
- Constantly perform CSR activities

CSR activities to improve corporate value

Initiatives for issues of global society in the major domains of agriculture, medicine, environment and information

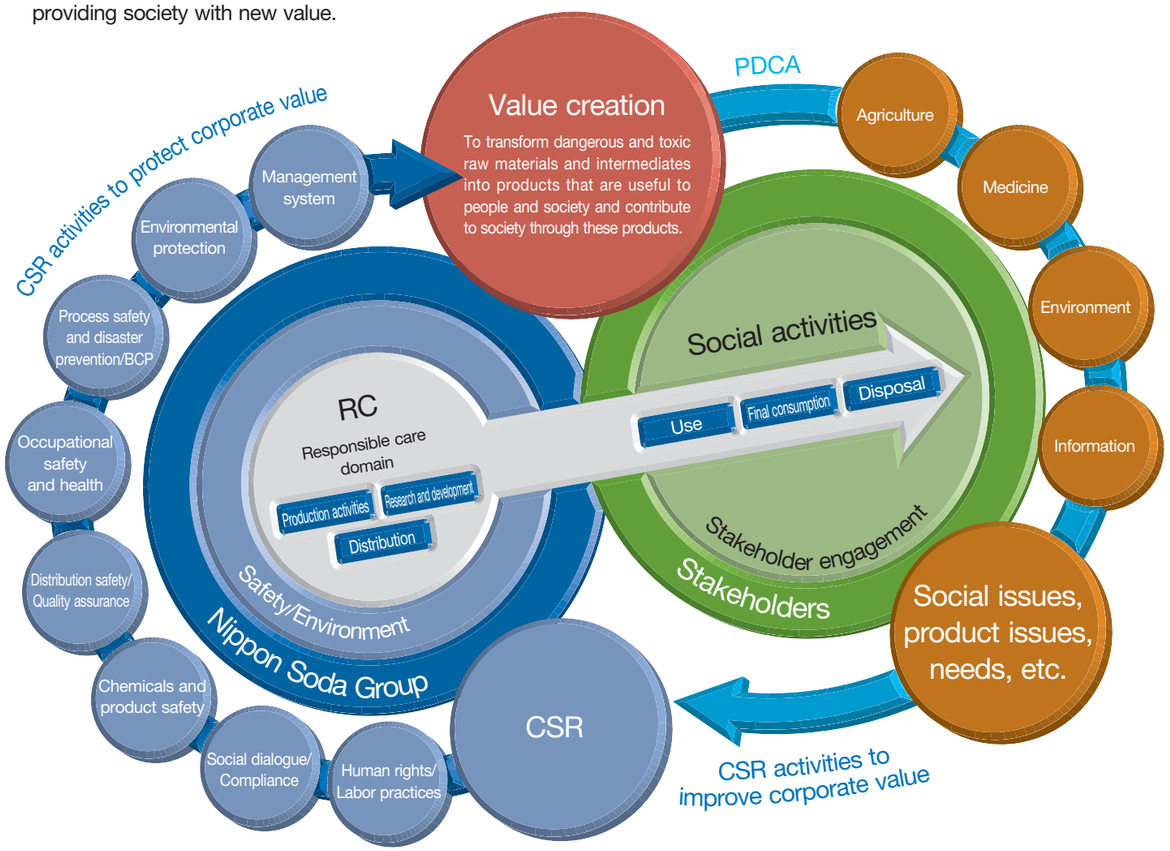
Agriculture	▶ Ensuring food safety and security using agrochemicals ▶ Contribution to sustainable agriculture
Health care	▶ Contribution to providing health to all people through pharmaceuticals
Environment	▶ Contribution to ensuring the environmentally sound recycling of resources using chemistry (water, waste)
Information	▶ Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials

Further develop our CSR management in order to promote our sound development as a sought-after chemical group

Contributing to the development of a sustainable society

Value Creation of the Nippon Soda Group

As a chemical manufacturer developing and supplying safe, useful and environmentally friendly products, we continue to contribute to the development of a sustainable society by cultivating harmonious relationships with all of our stakeholders, including shareholders, employees, business partners and members of our local communities, and by providing society with new value.



Business and SDGs[1] of the Nippon Soda Group

From September 25 to 27, 2015, during a milestone year for the United Nation's development agendas, the United Nations Sustainable Development Summit was held at the UN headquarters in New York. The summit was attended by more than 150 heads of state of member nations and resulted in the adoption of the official document, Transforming our World: The 2030 Agenda for Sustainable Development. This agenda includes declarations and goals, stated as action plans for the prosperity of people and the Earth. The newly established goals, which succeed the Millennium Development Goals (MDGs), are called Sustainable Development Goals (SDGs) and are comprised of 17 goals and 169 targets.

As part of our efforts to conduct CSR activities to improve corporate value, the Nippon Soda Group states in its basic policies for CSR that, through its business, the company will make contributions toward resolving social issues so as to help achieve the development of a sustainable society. As such, the Nippon Soda Group is striving to contribute to meeting four of the goals included in the SDGs through the use of our products. These are: Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 11 (Sustainable Cities and Communities), and Goal 12 (Responsible Consumption and Production). 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.

The Nippon Soda Group's CSR and materiality

Materiality[2] and KPIs[3] within the four domains of CSR defined in the CSR basic policies are shown below.

	Domain	Materiality	KPI	Reference pages
CSR activities to improve corporate value	Agriculture	**Contribution to ensuring food safety and security and sustainable agriculture using agrochemicals** Zero Hunger · Increase in food and feed production · Diversification of crop protection · Improvement of user safety (safety of chemicals and products)	· Seminar hosting situation · Situation of initiatives · Situation of transition to granular formula	p.29
	Health care[5]	**Contribution to providing health to all people through pharmaceuticals** · Providing medicines that are easier to take and more effective through HPC	· Under consideration	
	Environment	**Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)** Clean Water and Sanitation · Steady supply of water resources Sustainable Cities and Communities Responsible Consumption and Production · Reduction of environmental impacts caused by waste	· Water amount by our company's formula · Situation of contributions	p.31
	Information	**Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials** · Supply of high-function materials friendly to the environment and people	· Number of portable communication terminals using our products	p.35
	Initiatives for the next generation	Research and development toward the next generation Development of the next generation of human resources	· Situation of initiatives	p.37
CSR activities to protect corporate value	Environmental protection	**Energy issues** Promotion of active energy saving **Air and water quality pollution** Reduction of environmental impacts **Resource depletion** Promotion of 3Rs (reduce, reuse, recycle) **Waste disposal** Promotion of zero emissions **Global warming** Reduction of CO_2 emissions **Biodiversity** Reduction of impacts on the ecosystems	Usage amount, per unit Emissions Situation of initiatives Zero emissions ratio Emissions Situation of initiatives	p.41
	Process safety and disaster prevention/BCP	**Accidents and disasters at plants** Prevention of disasters through risk management **Discontinuation of product supply** Upward spiral of BCP	Number of accidents Situation of BCP improvement	p.47
	Occupational safety and health	**Occupational accidents of workers** Prevention of accidents through risk management **Diseases of workers** Proactive management of workers' health	Number of occupational accidents Number of incidence of personal injury and illness	p.51
	Distribution safety and quality assurance	**Accidents during distribution** Prevention of distribution accidents through risk management **Complaints about products** Prevention of complaints through risk management	Number of distribution-related complaints Number of product-related complaints	p.55
	Chemicals and product safety	**Hazards and toxicities associated with chemical substances and products of chemical substances and products** Management of the safety of chemicals and products with a chemical substance control system Safety education on chemicals and products	Situation of management Situation of education	p.57
Social activities	Together with our customers (Consumer issues)	**Various problems regarding products** Understand and respond to consumer issues	Situation of understanding	p.59
	Together with our employees (Human rights and labor practices)	**Job satisfaction** Realize a rewarding workplace that employees can feel proud of **Diversity**[4] Achieve acceptance of diversity	Results of survey on employee satisfaction with their workplace Quantitative value on diversity	p.61
	Together with our business partners (Fair operating practices)	**Fair and just transactions** Strict adherence to decency and integrity	Situation on compliance with code of conduct	p.65
	Together with our shareholders	**Constructive dialogue** Fair and timely information disclosure	Situation of dialogues	p.67
	Together with our local communities (Community Involvement and Development, Social Dialogue)	**Effects on local communities** Dialogues with local communities	Number of dialogues	p.69
Governance	Corporate governance	**Corporate misconduct** Maintain and improve corporate governance structure	Governance structure	p.75
	Compliance	**Violations of laws and regulations** Maintain compliance regime and education of employees	Violations of laws and regulations	p.78
	CSR auditing	**Becoming obsolete** Maintain and improve auditing efforts	Situation of audits	p.20
	Stakeholder engagement	**Being self-righteous** Maintain and improve by incorporating external perspectives and opinions	Situation of dialogues	p.25
	CSR investigation	**Accuracy of CSR reports** Ensure thorough investigation by a third party	CSR investigation results	p.89
	Third-party opinions	**Further CSR** Improve by incorporating third-party opinions	Verification report	p.93

1, 2, 3, 4. For more information, please see the glossary on page 92.
5. The area of medicine was added in fiscal 2018.

Nippon Soda Group's

Value Chain and Stakeholders

The Nippon Soda Group is conducting business activities in consideration of the potential impacts on our stakeholders, and with awareness of our position as a chemical manufacturer in terms of the impacts that we have on society and the environment, as well as with regard to our social responsibilities. Furthermore, the Group is contributing to the development of a sustainable society and environment by steadily responding to issues of materiality in each of the processes of our value chain[1].

Effects on society and the environment through the promotion of the Nippon Soda Group's **CSR activities to improve corporate value**

Agriculture
Addressing agricultural and food issues
Contribution to ensuring food safety and security and sustainable agriculture using agrochemicals

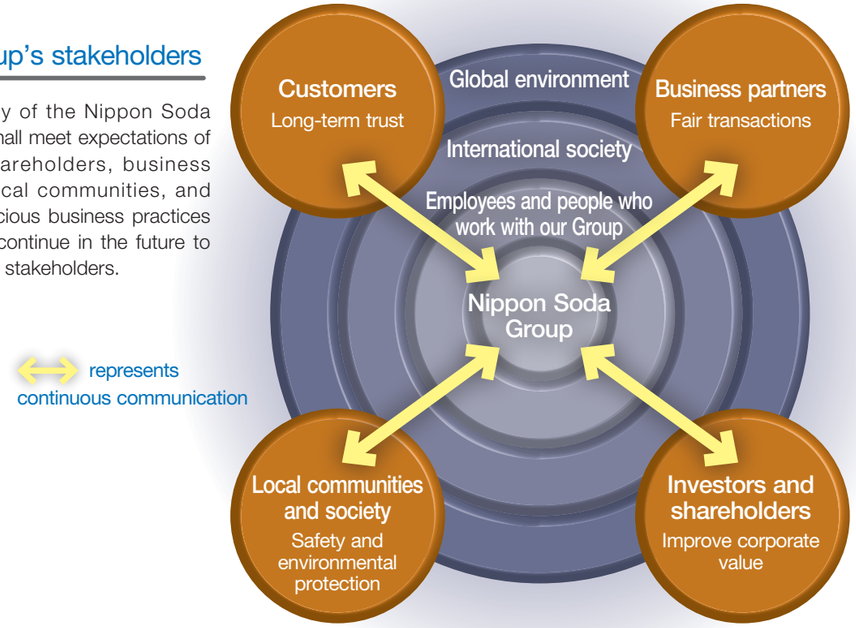
Health care
Contribution to providing health to all people through pharmaceuticals (added in FY 2018)

Environment
Proactively addressing global environmental issues
Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)

Information
Supporting the development of the information and electronics field by supplying materials
Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials

The Nippon Soda Group's stakeholders

The management philosophy of the Nippon Soda Group states that the Group shall meet expectations of stakeholders, including shareholders, business partners, employees and local communities, and promote environmentally conscious business practices and activities. The Group will continue in the future to fulfill its social responsibilities to stakeholders.



Value chain and stakeholders in the Nippon Soda Group's CSR activities to protect corporate value and social activities

		Business activities: Research and development	Production activities	Distribution	Use	Final consumption	Disposal
CSR activities to protect corporate value	Environmental protection	Promotion of active energy saving, reduce environmental impact, reduce CO_2,		reduce impacts on biodiversity and the ecosystem		Promote 3Rs (reduce, reuse, recycle), promote zero emissions	
	Process safety and disaster prevention/BCP		Prevention of plant accidents (disasters) through risk management,	upward spiral of BCP			
	Occupational safety and health	Prevention of occupational disasters through risk management					
		Proactive management of workers' health					
	Distribution safety and quality assurance	Prevention of distribution accidents through risk management					
			Prevention of complaints	through risk management			
	Chemicals and product safety		Management of the safety of chemicals and products with a chemical substance control system		Safety education on chemicals and products		
Social activities	Together with our customers (Consumer issues)				Identification of and response to consumer issues		
	Together with our employees (Human rights and labor practices)	Realize a rewarding workplace that employees can feel proud of, achieve acceptance of diversity					
	Together with our business partners (Fair operating practices)		Strict adherence to decency and integrity				
	Together with our shareholders	Fair and timely information disclosure					
	Together with our local communities (Community Involvement and Development, Social Dialogue)	Dialogues with local communities, legal compliance through		the legal compliance system, risk communication, transparency and accountability practice			

1. For more information, please see the glossary on page 92.

The Nippon Soda Group's

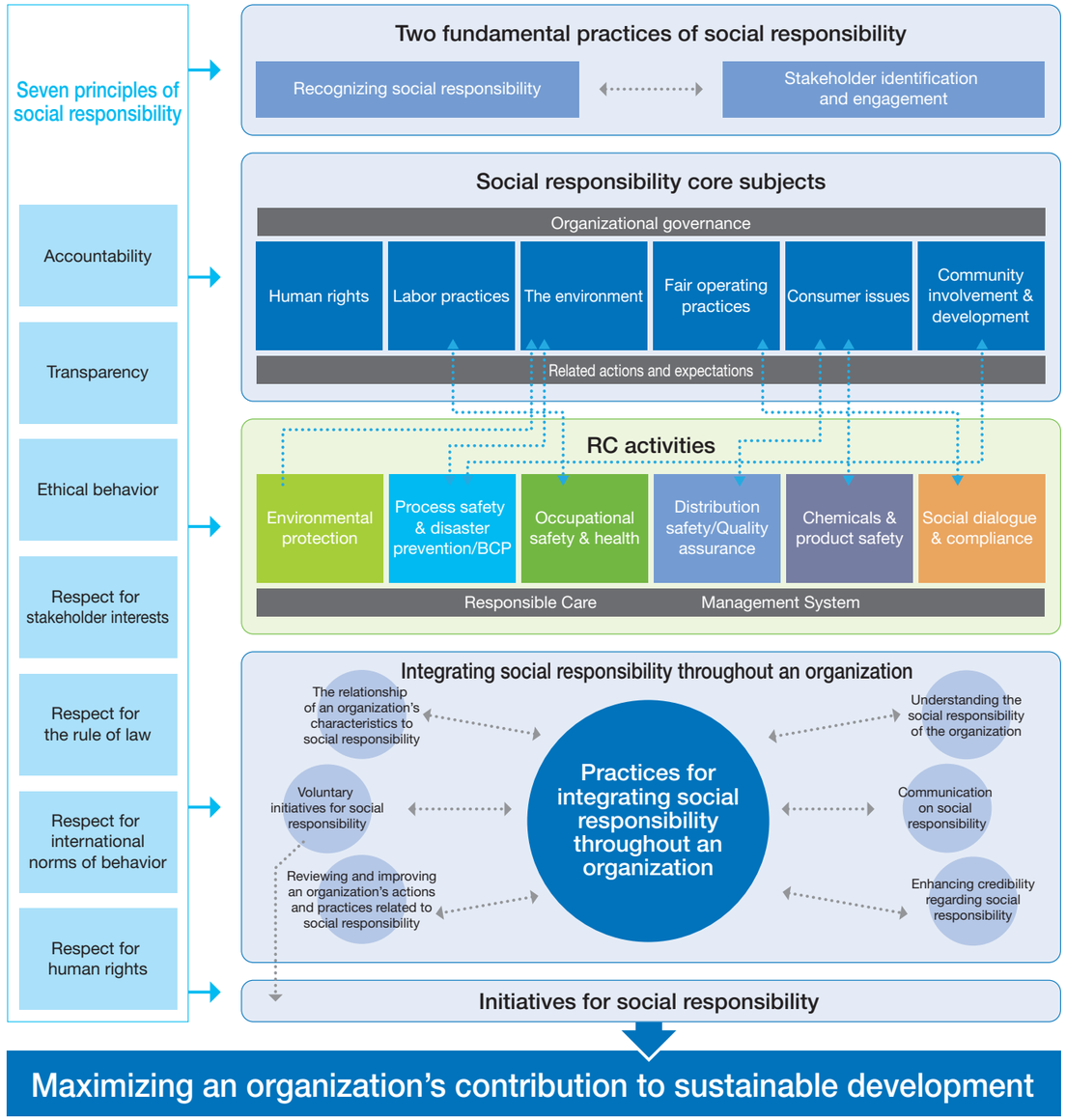
CSR Management

CSR activities

The CSR activities of the Nippon Soda Group include all of the responsible care (RC) codes (activity items). All CSR activity items are based on the seven principles of social responsibility described in the ISO 26000 standard and responsible care is based on the concepts of "doing what is ethically right" and "implementing proactive measures to reduce risks."

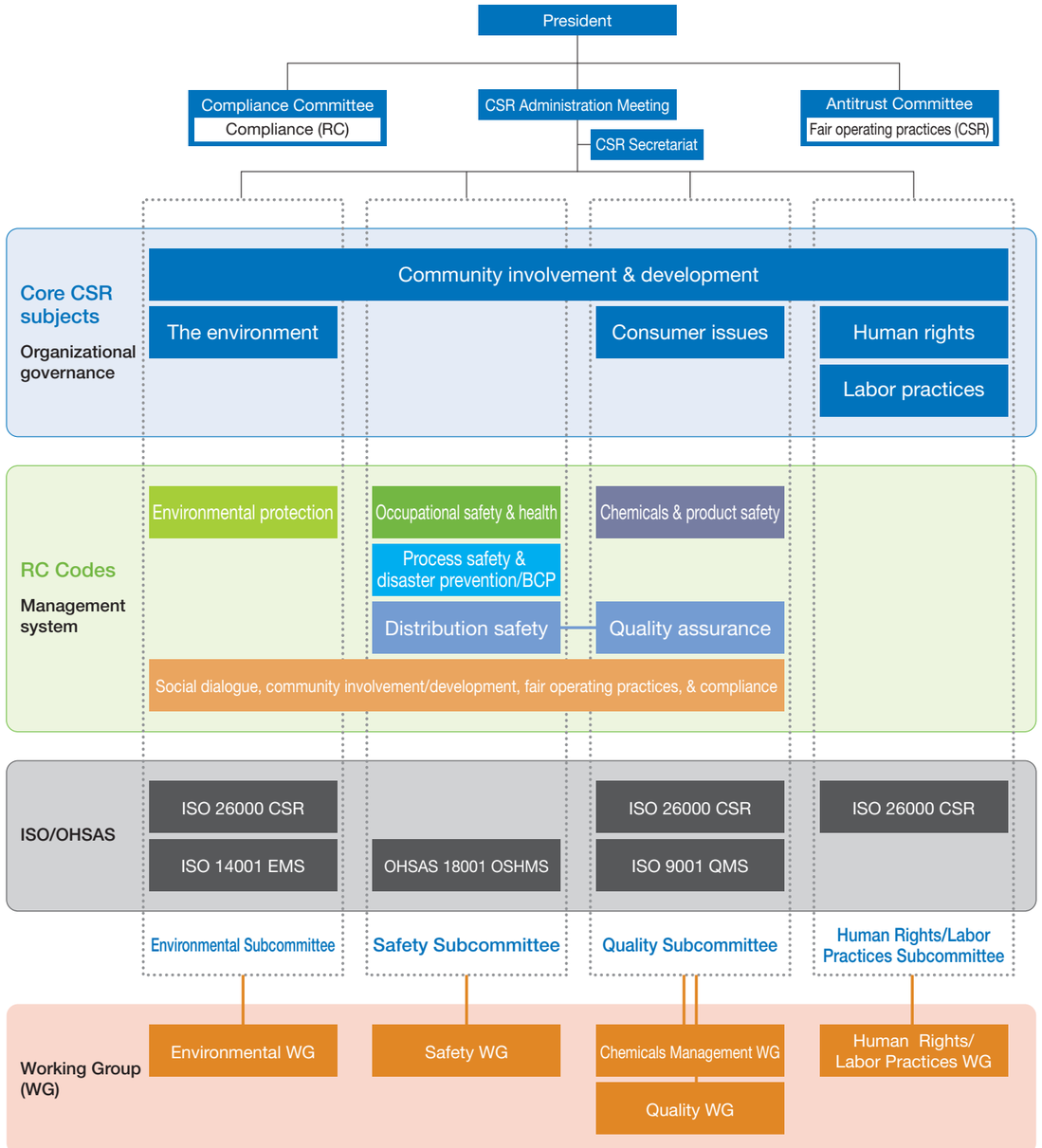
The conceptual diagram of CSR below outlines the relationship between CSR (ISO 26000) and RC, with RC promotional activity codes (activity items) shown in green. As indicated by the dotted blue arrows, the seven RC Codes and the seven core subjects (activity items) of CSR are closely related with each other. The Nippon Soda Group integrates these activity items and determines the eight policies described on page 22.

Relationship between CSR (ISO 26000) and RC



CSR promotion system

Chaired by the President, the CSR Administration Meeting serves as a company-wide decision-making body to promote CSR activities, including RC. It sets annual targets to help the PDCA cycle "spiral up" and provides a management-level review of CSR activities. Held twice a year, the CSR Administration Meeting is attended by all directors, executive officers and worksite managers.



Group Company Subcommittee	
Manufacturing:	Nisso Metallochemical Co., Ltd., Nisso Fine Co., Ltd., Shinfuji Kaseiyaku Co., Ltd.
Non-manufacturing:	Nisso Shoji Co., Ltd., Sanwa Soko Co., Ltd., Nisso Engineering Co., Ltd., Nisso Kensetsu Co., Ltd., Nisso Green Co., Ltd.
Observers:	Nisso Namhae Agro Co., Ltd. (South Korea), Alkaline SAS (France)

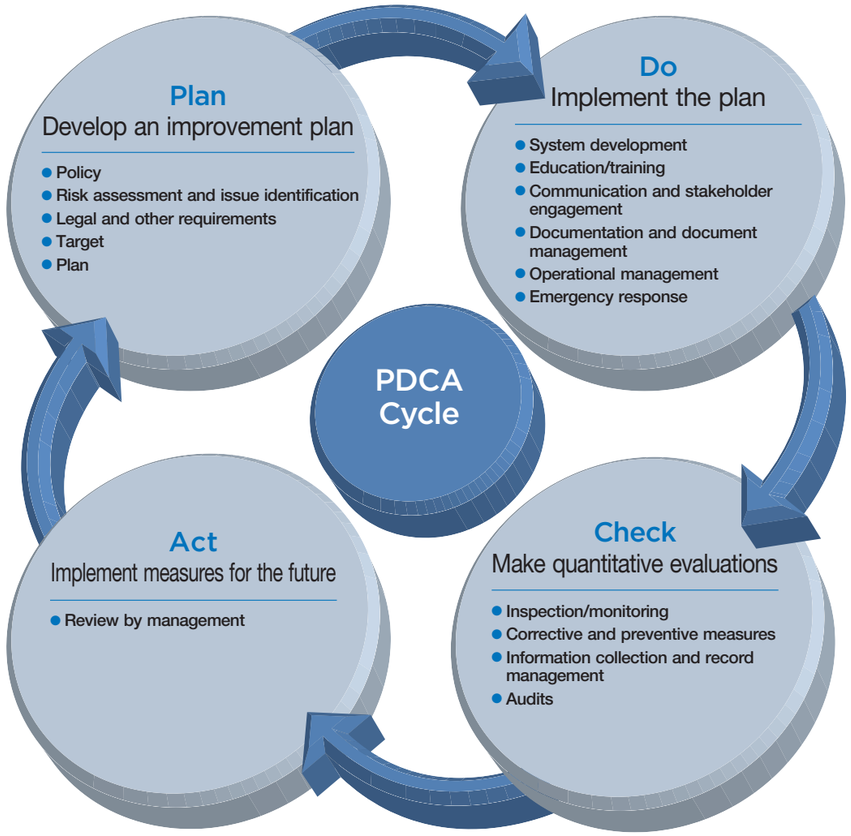
CSR management system

The management system that promotes the CSR activities of the Nippon Soda Group is designed to “spiral up” the PDCA cycle[1].

Each worksite is required to develop a CSR improvement plan (Plan), implement the developed plan (Do), make quantitative evaluations of both the plan and its implementation (Check), and implement measures based on quantitative evaluation results (Act) in order to ensure continuous improvement.

We also conduct a Group-wide audit to assess the appropriateness of activities.

We recommend that the PDCA cycle for CSR activities to protect corporate value be completed in one year by design. The CSR Promotion Subcommittee holds a meeting to review the progress of the PDCA cycle twice a year, in May and November. The progress is also reviewed by management in February and August every year at Corporate Social Responsibility Administration Meetings.



Application in 2016 and 2017

2016	Plan	Do	Check	Act	2017
● Materiality identification ● Appropriateness assessment ● Annual policy, goals ● Commencement of KPIs determination	● Implementation of the plan ● Full implementation throughout the Group companies ● CSR-related education ● Review of CSR-related documents	● Use of third-party evaluations ● Group-wide audit ● Organization of CSR Promotion Subcommittee meetings and working groups’ meetings	● Organization of dialogues about the determination of KPIs ● Review at Corporate Social Responsibility Administration Meetings ● Revision to the CSR activity framework		

1. For more information, please see the glossary on page 92.

CSR officers

The following two officers are in charge of CSR activities:
Noriyuki Haketa, Director and Executive Managing Officer, supervises overall CSR activities. He also takes charge of CSR activities in the Human Rights/Labor Practices field.

Masahito Ikeda, Executive Officer, is in charge of CSR activities in fields other than the Human Rights/Labor Practices field.

Comments from the CSR officers

We hope to celebrate the 100th anniversary in 2020 as a chemical group company sought after by society as a result of the achievement of CSR-oriented business management and balanced implementation of CSR activities to protect corporate value and CSR activities to improve corporate value. Our goal is to become a company that all employees can enjoy working at and a global corporate group that values diversity. We are committed to promoting CSR activities with an emphasis on transparency and accountability.

Noriyuki Haketa
Director and Executive Managing Officer, Supervision of the Corporate Social Responsibility Department

Masahito Ikeda, PhD
Executive Officer, General Manager of the Corporate Social Responsibility Department

Internal audit

❶ CSR Audit, Verification and Review Meeting

We collectively refer to internal audits, such as QMS, EMS and OSHMS, that are conducted at each site of Nippon Soda as the “CSR audit.” To investigate and verify whether the CSR audit is conducted appropriately, whether the level of audit quality is appropriate, and other relevant issues, a representative from each site and staff in charge at the Head Office convene once a year to hold a CSR Audit, Verification and Review Meeting. In FY 2017, the meeting was held at the Head Office of Nippon Soda on December 13, 2016.

❷ CSR audit at worksites (plants and research centers)

Internal audits independently performed by Nippon Soda’s worksites (plants and research centers) are referred to as the CSR audit and the results of internal audits are reviewed at each worksite’s Corporate Social Responsibility Administration Meeting.

❸ CSR audit at Group companies

Nippon Soda’s audit team conducts regular (biennial) audits of CSR practices at Group companies. In FY 2017, CSR audits were performed by the Head Office’s audit team at the following sites: Chiba Plant of Nisso Metallochemical Co., Ltd. (September 27, 2016); Iwaki Manufacturing Department (July 26, 2016), Isohara Plant No. 1 (July 27, 2016) and Koriyama Plant (August 31, 2016) of Nisso Fine Co., Ltd.; Head Office (August 9, 2016) and Shinetsu Office (September 15, 2016) of Nisso Engineering Co., Ltd.; Nisso Shoji Co., Ltd. (August 18, 2016); Nisso Construction Co., Ltd. (September 14, 2016); and Nisso Green Co., Ltd. (October 21, 2016).

External audit

All worksites (plants and research centers) and manufacturing group companies undergo external reviews according to ISO 14001, ISO 9001 and OHSAS 18001 and diagnosis of disaster prevention capability with emphasis on disaster prevention and occupational safety by an institute specializing in disaster prevention. Based on their results, ongoing improvement efforts are made. We are always ready to receive audits by customers, who are our stakeholders, and make improvements in response to their feedback. We also undergo other external audits on an as-needed basis.

Special audits

A special audit is conducted, as needed, in the event of a serious non-conformity or other serious problem under an audit system that can accommodate the situation.

Audits and reviews conducted

Audits and reviews carried out at the Nippon Soda Group for fiscal 2017 (number of times)

Sites	Internal	External	
		Received	Conducted
Head Office	4	2	51
Nihongi Plant	15	31	10
Takaoka Plant	10	16	6
Mizushima Plant	3	6	2
Chiba Plant	29	22	11
Odawara Research Center	2	4	1
Chiba Research Center	1	3	0
Domestic manufacturing group companies (3)	27	50	4
Total	90	134	85

New Medium-Term CSR Activity Goals (FY 2017–2020)

CSR Activity Goals of Nippon Soda Group (New Medium-Term CSR Activity Goals for FY 2017–2020)

1. Management system [RC] and organizational governance [CSR]		
	Goal	Proper implementation
	(Actions)	Continuous improvement using the PDCA cycle; Increased efforts in implementing measures to prevent problems caused by human error
2. Environmental protection [RC/CSR]		
(1) Environmental abnormalities	Goal	Zero events
	(Actions)	Implementation of measures for reducing risks by evaluating environmental impacts; Planning and implementation of measures to prevent problems caused by human error
(2) Energy		
1) Energy use per unit of production	Goal	Annual improvement of 1% and 4% improvement by the end of the new medium-term CSR plan
	(Actions)	With an eye to meeting the energy-saving target, focusing efforts to ensure the improvement in the per-unit energy use through the setting, implementation and evaluation of themes for improvement
2) Energy use per unit of transport	Goal	Annual improvement of 1% and 4% improvement by the end of the new medium-term CSR plan
	(Actions)	With an eye to meeting the target for saving energy use for transport, focusing efforts to ensure the improvement of the per-unit energy use through the setting, implementation and evaluation of themes for improvement
(3) Reduction of greenhouse gas emissions	Goal	Annual reduction of 1% in CO_2 emissions and 4% reduction by the end of the new medium-term CSR plan Complete elimination of fluorocarbon release from equipment using fluorocarbons
	(Actions)	Implementation of improvement measures linked to energy-saving activities for the achievement of the goals, and regular inspection/maintenance of equipment using fluorocarbons
(4) Waste		
1) Amount of final disposal at landfills	Goal	Annual reduction of 3% in the amount of final disposal at landfills and 12% reduction by the end of the new medium-term CSR plan
	(Actions)	With an eye to meeting the reduction target, focusing efforts to ensure the improvement in the per-unit waste generation through the setting, implementation and evaluation of themes for improvement
2) Zero emissions	Goal	Continuation of zero emissions
	(Actions)	Continuation of zero emissions at all worksites through reductions in the amount of final disposal at landfills and the amount transported
(5) Emissions of harmful substances to the atmosphere	Goal	Annual reduction of 12.5% from FY 2015 and 50% reduction by the end of the new medium-term CSR plan
	(Actions)	Planning and implementation of measures to reduce emissions of harmful substances
(6) Reduction of impacts upon biodiversity and ecosystems	Goal	Planning and implementation of activities aiming to reduce impacts upon biodiversity and ecosystems
	(Actions)	Contributing to the preservation of biodiversity by reducing environmental impact through environmental preservation activities; Promoting communication with related parties and striving to collaborate and cooperate to enhance biodiversity
3. Process safety and disaster prevention [RC]/BCP		
(1) Major accidents at facilities	Goal	No accidents
	(Actions)	Achieving zero major accidents at facilities; Reducing risks of major accidents at facilities in accordance with the BCP
(2) Maintenance and improvement of the business continuity plan (BCP)	Goal	Maintenance and improvement of the BCP using the PDCA cycle
	(Actions)	Improving the emergency operation center and implementing regular emergency drills to ensure preparedness for Tokyo metropolitan and sequential earthquakes
4. Occupational safety and health [RC]		
(1) Occupational accidents resulting in an absence from work or no absence	Goal	No accidents
	(Actions)	Reduction of risks through risk assessments; Increased efforts for preventing human error; Activation of safety initiatives (KY, pointing and vocalizing, mutually directing attention, identifying "hiyari-hat" (near miss) accidents, 5Ss, improvement activities, campaigns, etc.)
(2) Health promotion	Goal	5% reduction in the total number of absentee days including mental-health-related absence and 5% reduction in the number of incidents of personal injury or illness (averages for FY 2013–2015)
	(Actions)	Follow-up of periodic medical examination results; Mental health checks and their follow-ups; Health education
5. Distribution safety [RC], quality assurance and consumer issues [CSR]		
(1) Distribution-related complaints	Goal	30% reduction from FY 2015, complete elimination by the end of the new medium-term CSR plan
	(Actions)	Identifying and reducing risks of distribution-related complaints through active involvement by Head Office Logistics and RC Departments; Identifying and reducing risks of distribution-related complaints through active involvement by worksites' Logistics and RC Departments
(2) Product-related complaints	Goal	30% reduction from FY 2015, complete elimination by the end of the new medium-term CSR plan
	(Actions)	Conducting company-wide quality risk assessments to reduce Rank A and B risks by 30% from the previous year; Increased efforts for the prevention of human error
(3) Consumer issues	Goal	Sharing information on issues
	(Actions)	Identifying products for consumers and confirming safety
6. Chemicals and product safety [RC]		
(1) Compliance with chemical-related laws and regulations	Goal	Zero violations
	(Actions)	Strengthening the management of chemical substances (for preparation of SDS and labels in and outside Japan) by adopting a new chemical substance control system; Conducting regular training programs on chemical substance control
7. Social dialogue [RC], community involvement and development [CSR], fair operating practices [CSR], and compliance		
(1) Local gatherings and community involvement	Goal	Maintaining the current number of local gatherings and improving their contents
	(Actions)	Continuing to have dialogues with concerned local people and relevant organizations and improving their contents
(2) Legal and other requirements	Goal	Zero legal violations
	(Actions)	Preparing a list of relevant laws and regulations, checking compliance using the PDCA cycle, taking measures to prevent recurrence of deviations, and rolling out these measures to other similar cases
(3) Creation of more opportunities for stakeholder engagement	Goal	Once a year per worksite
	(Actions)	Creating more opportunities for stakeholder engagement; Incorporating results from stakeholder engagement activities to improve CSR and RC activities
8. Human rights [CSR], labor practices [CSR]		
(1) Acceptance of diversity	Goal	Increased ratio of female, disabled, older and foreign employees
	(Actions)	Supporting diverse individuals playing active roles
(2) Creation of rewarding workplace that employees can be proud of	Goal	Understanding and improving levels of employee satisfaction with their workplace
	(Actions)	Promoting mutual communication in the office and improving human resource training

Akira Ishii
Representative Director, President
Chairman, CSR Administration Meeting
April 1, 2016

CSR Activity Policy Goals for FY 2018 (within the ISO 26000 Framework)

1 Management system and organizational governance

In order to carry out sound and transparent corporate activities in compliance with laws and regulations, we will continuously implement the PDCA cycle of goal setting, improvement and periodic reviews based on RC Codes and RC ethics.

We will conduct business activities in accordance with the seven principles of social responsibility in CSR: accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior, and respect for human rights. We will also conduct CSR and RC activities in our overseas operations.

2 Environmental protection

We will make efforts to save energy and resources, reduce and recycle waste, and reduce emissions of harmful substances, with the goal of minimizing the environmental impact of our business activities.

3 Process safety and disaster prevention/BCP

We will prevent major accidents at our facilities and promote safe and stable production. We will establish a business continuity plan (BCP) and drive continuous improvement.

4 Occupational safety and health

We will create an accident-free working environment in order to provide a healthy and happy working experience.

5 Distribution safety, quality assurance and consumer issues

We will prevent distribution accidents by minimizing hazards, harm and risks of in-transit accidents associated with the transportation and distribution of our products. We will increase customer satisfaction.

6 Chemicals and product safety

We will increase the confidence and trust of customers and the general public in us by taking into account possible hazards and harm that chemicals and products may have with regard to safety, health and the environment, and we will comply with domestic laws and regulations, international standards, treaties and the like, as well as other regulations that are publicly demanded.

7 Social dialogue, community involvement and development, fair operating practices, and compliance

We will make efforts to improve the general public's confidence in us by participating in various environmental protection and safety activities and proactively engaging in dialogue with stakeholders regarding the effects of chemical substances on safety, health and the environment. We will comply with legal requirements to improve transparency.

8 Human rights and labor practices

We will respect human rights and act in recognition of both their importance and their universality. We will act based on the understanding that socially responsible labor practices are indispensable to social justice and peace, respect for the rule of law, and a fair society.

Evaluation Results for FY 2017 and CSR Activity Policies for FY 2018 (Evaluation list based on the ISO 26000 framework)

Item	Goals for FY 2017 (KPI)/Plan (P)	Results in FY 2017 (D)	Evaluation (C)	Future policies (A)	Goals for FY 2018 (P)	Reference pages
1. Management system and organizational governance	❶ Proper implementation 1) Continuous improvement using the PDCA cycle 2) Strengthening of measures to prevent problems caused by human error	1) ISO-certified worksites are preparing for transition to a new version; In CSR audits of non-manufacturing group companies, issues that need to be improved were identified. 2) Goals for each worksite and each group company were determined and measures to achieve them were strengthened. While problems were reduced, many of the issues were attributable to human error, for which more emphasis should be placed on preventive measures.	❶ 1) ○ 2) ○	1) The current editions of ISO 9001 and ISO 14001 will be replaced by the 2015 editions. Follow-up assessment of improvement will be conducted as part of CSR audits, etc. 2) Continuous correction and education will be promoted throughout the group to help employees recognize how to prevent human error.	❶ Proper implementation 1) Continuous improvement using the PDCA cycle 2) Strengthening of measures to prevent problems caused by human error	p.17
2. Environmental protection	❶ Environmental abnormalities: Zero events ❷ Energy 1) Energy use per unit of production (excluding logistics): Annual improvement of 1% (production base) 2) Energy use per unit of transport: Annual improvement of 1% (sales base) ❸ Reduction in greenhouse gas emissions: Annual reduction of 1%; No CFC leakage ❹ Waste 1) Amount of final disposal as landfill: Annual reduction of 3% 2) Continuation of zero emissions ❺ Emissions of harmful substances into the atmosphere: Annual reduction of 12.5% from the previous fiscal year 2015 ❻ Reduction in impact on biodiversity and ecosystems	❶ NS major deviation: 0; minor deviation: 1 (violation of the wastewater agreement) ❷ 1) Not achieved 0.348 kL/t (0.85% reduction) 2) Not achieved 0.0208 kL/million yen (10.1% increase) ❸ Not achieved 7,418 tons increase (3.5% increase) ❹ 1) Not achieved 13 tons increase (5.5% increase) 2) Achieved 3.4% (≤ 5%) ❺ Achieved 9.8 tons reduction (63% reduction) ❻ Chiba Plant: Himekomatsu supporter started Consideration ongoing at other worksites (gathering information)	❶ Major ◎ Minor × ❷ 1) ○ 2) × ❸ × ❹ 1) × 2) ◎ ❺ ◎ ❻ ○	❶ Activities to prevent environmental problems will be implemented according to the CSR Plan. ❷ 1) Energy-saving will be promoted according to the plan to reduce the annual energy use per unit of production by 1%. 2) With regard to the transport from Niigata and Toyama, we will consider whether it is possible or not to use Naoetsu Port and Fushiki-Toyama Port to reduce inland transport. ❸ Improvement measures will be implemented in conjunction with energy-saving activities. Regular inspections and maintenance in compliance with relevant laws and regulations will be implemented. ❹ 1) Measures will be implemented to achieve the reduction target. 2) The ratio of zero waste emissions will be maintained at < 5.0%. ❺ Reduction measures will be implemented continuously. ❻ An activity plan will be developed and implemented.	❶ Environmental abnormalities: Zero events ❷ Energy 1) Energy use per unit of production (excluding logistics): Annual improvement of 1% (production base) 2) Energy use per unit of transport: Annual improvement of 1% (sales base) ❸ Reduction in greenhouse gas emissions: Annual reduction of 1%; No CFC leakage ❹ Waste 1) Amount of final disposal as landfill: Annual reduction of 3% 2) Continuation of zero emissions ❺ Emissions of harmful substances into the atmosphere: Annual reduction of 25% from the previous fiscal year ❻ Reduction in impact on biodiversity and ecosystems	p.41
3. Process safety & disaster prevention/BCP	❶ Major accidents at facilities: Zero accidents 1) Achievement of zero major accidents at facilities 2) Reduction in the risk of major accidents at facilities in line with BCP ❷ Maintenance and improvement of a business continuity plan (BCP): Maintenance and improvement of the BCP using the PDCA cycle	❶ 1) April 2: A fire involving industrial waste at Nisso Metallochemical Co., Ltd. 2) Matrix evaluation of worksite security levels was conducted. Downtimes were reduced. Diagnosis of disaster prevention capability: Conducted at 6 worksites. Safety audit prior to trial operation: 3 safety audits Special CSR: Twice ❷ Revised on April 1, 2016; The 6th version was distributed. June 17: Training to establish the Head Office Disaster Response Headquarters was conducted. September 11: A safety confirmation drill was conducted. The 7th revised version was prepared.	❶ 1) × 2) ◎ ❷ ◎	❶ 1) Continuous implementation Integration of matrix evaluations of worksite security levels and application of the matrix evaluation to Group companies 2) Diagnosis of disaster prevention capability: Scheduled to be conducted at one worksite in the second half of the fiscal year; Safety audit: On as-needed basis ❷ 1) To be revised on April 1, 2017; The 7th version will be distributed. Will be completely revised to address change in hazards at each worksite. The 8th revised version will be prepared.	❶ Major accidents at facilities: Zero accidents 1) Achievement of zero major accidents at facilities 2) Reduction in the risk of major accidents at facilities in line with BCP ❷ Maintenance and improvement of a business continuity plan (BCP): Maintenance and improvement of the BCP using the PDCA cycle	p.47
4. Occupational safety & health	❶ Occupational accidents resulting in an absence from work or no absence: No accidents 1) Conducting of risk assessment to reduce occupational accidents 2) Strengthening of measures to prevent human error 3) Implementation of activities to ensure safety ❷ Health promotion: 5% reduction in the total number of absentee days, including mental-health-related absence, and 5% reduction in the incidence of personal injury and illness (average in the period from 2012 to 2014) 1) Follow-up of those undergoing periodic medical examinations 2) Mental health checkups and follow-ups, health education	❶ 8 cases involving absence from work (employees: 1; affiliate company employees: 2; group company employees: 3; group affiliate company employees: 2) 15 cases involving no absence (employees: 3; affiliate company employees: 2; group company employees: 7; group affiliate company employees: 3) 1) 2) CSR audits and safety patrols confirmed that safety activities were favorably implemented. 3) Occupational accident prevention survey: A diagnosis at Mizushima Plant by Sompo is scheduled for the second half of the fiscal year. ❷ 27% reduction in the total number of days of absence from the average of the period from 2012 to 2014 41% reduction in the number of incidents 1) 2) Guidance for improvement was offered by healthcare professionals and staff in charge of health.	❶ × ❷ ◎	❶ Efforts to prevent accidents will continue to be promoted, such as the attraction of attention of the entire company by the Central Safety and Health Committee and the CSR Promotion Subcommittee. 1) 2) Information on results from audit patrols will be shared among worksites. 3) A survey on occupational accident prevention will be conducted at Mizushima Plant to identify points that need to be improved. ❷ 1) 2) More emphasis will be placed on health guidance for those with abnormal findings in medical examinations; A stress check will be provided to identify highly stressed employees at an early stage.	❶ Occupational accidents resulting in an absence from work or no absence: No accidents 1) Conducting of risk assessment to reduce occupational accidents 2) Strengthening of measures to prevent human error 3) Implementation of activities to ensure safety ❷ Health promotion: 10% reduction in the total number of absentee days, including mental-health-related absence, and 10% reduction in the incidence of personal injury and illness (average in the period from 2012 to 2014) 1) Follow-up of those undergoing periodic medical examinations 2) Mental health checkups and follow-ups, health education	p.51
5. Distribution safety, quality assurance and consumer issues	❶ Distribution-related complaints: 30% reduction from FY 2015 1) Identification and reduction of risks related to distribution-related complaints through proactive involvement by the Head Office Logistics and RC Departments. Identification and reduction of risks related to distribution-related complaints through proactive involvement by each worksite's Logistics and RC Departments ❷ Product-related complaints: 30% reduction from FY 2015 1) 30% reduction in rank A and B risks from the previous year by company-wide introduction of quality risk assessment, strengthening of measures to prevent human error ❸ Consumer issues: Sharing of information on relevant issues 1) Identification of consumer products and confirmation of their safety	❶ 33% reduction from FY 2015 (2 in FY 2017, 3 in FY 2015) 1) Educational sessions for logistics operators An educational session on risks in cargo handling was provided. Relevant information on other companies was obtained and shared by all worksites. ❷ 50% reduction from FY 2015 (9 in FY 2017, 18 in FY 2015) 1) Rank A: 92% reduction; Rank B: 86% reduction ❸ Gathering information on inquiries and complaints and addressing them 1) Inquiries and complaints on consumer products were addressed.	❶ ◎ ❷ ◎ ❸ ◎	❶ Adoption of logistics risk assessment will be considered. Proactive identification of "hiyari-hat" (near miss) accidents and KY (prediction of risk), and support to reduce them ❷ Quality risk assessment will be continued. The Internal Quality Review Meeting will be continued. ❸ Information on inquiries and complaints will be gathered. Efforts to address them will be continued.	❶ Distribution-related accidents/complaints: 60% reduction from FY 2015 ❷ Product-related complaints: 60% reduction from FY 2015 ❸ Consumer issues: Sharing information on consumer issues 1) Consumer products will be identified and their safety will be confirmed.	p.55
6. Chemicals & product safety	❶ Compliance with chemical-related laws and regulations (zero violations) 1) Zero violations 2) Strengthening the management of chemical substances by adopting a new chemical substance control system (use of domestic and overseas SDSs, label preparation) 3) Periodic educational programs on chemical substance control	1) Zero violations 2) Efforts in cooperation with external companies are ongoing. 3) Implemented according to the plan.	❶ ◎	1) Will be continued. 2) Will be continued. 3) Will be continued.	❶ Compliance with chemical-related laws and regulations (zero violations) 1) Zero violations 2) Strengthening the management of chemical substances by adopting a new chemical substance control system (use of domestic and overseas SDSs, label preparation) 3) Periodic educational programs on chemical substance control	p.57
7. Social dialogue, community involvement and development, fair operating practices, and compliance	❶ Local gatherings and community involvement 1) Retention of a certain number of local gatherings and improvement of their contents ❷ Legal and other requirements 1) Zero legal violations ❸ Creation of more opportunities for stakeholder engagement 1) Once a year per worksite	❶ Local gatherings and community involvement 1) Achieved (≥ 25 events/year) 46 local gatherings ❷ Not achieved Nippon Soda: 5 (Deviation of the wastewater agreement, failure to report a change in specific high-pressure gas facilities, 3 correction recommendations from the Labor Standards Inspection Office) Group: 2 (2 correction recommendations from the Labor Standards Inspection Office) ❸ Achieved 1) 98 study tours 2) Verification of the CSR report by the Japan Chemical Industry Association (JCIA) 3) Diagnosis of disaster prevention capability by Sompo Japan Insurance Inc. (Sompo J) 4) Diagnosis of occupational accidents by Sompo J	❶ ◎ ❷ × ❸ ◎	❶ Implemented according to the plan. ❷ Causes will be identified and measures to prevent recurrences will be taken. Information on the measures to prevent recurrences will be shared among worksites for implementation. ❸ Implementation will be continued according to the plan.	❶ Local gatherings and community involvement 1) Retention of a certain number of local gatherings and improvement of their contents ❷ Legal and other requirements 1) Zero legal violations ❸ Creation of more opportunities for stakeholder engagement 1) Once a year per worksite	p.69 p.78
8. Human rights/ Labor practices	❶ Embracing diversity: Increase in the rate of employment of women, disabled people, older people and foreign nationals 1) Efforts to promote women's active participation Consideration and proposal on support programs to enable men and women to achieve balance between work and child rearing and long-term care, throughout the year 2) Employment of foreign nationals, throughout the year 3) Employment of older people and disabled people, throughout the year ❷ Rewarding workplace that employees can be proud of: Understanding and improvement of employee satisfaction with their workplace 1) Understanding and improvement of employee satisfaction (i) An employee satisfaction survey to be conducted in the first half of FY 2017 (ii) An employee satisfaction survey, analysis of its results, identification of company-wide and worksite-specific issues and development of measures to address them, by the end of FY 2017	❶ Embracing diversity 1) Efforts to promote women's active participation Our Diversity Policy and medium-term diversity plan were developed. Our General Employer Action Plan based on the Act on Promotion of Women's Participation and Advancement in the Workplace and the Act on Advancement of Measures to Support Raising the Next Generation of Children was developed. [A notification to the Labor Bureau was made; The information was included in the news on personnel.] Sick leave for personal injury or illness was categorized as "accumulated special leave" and the scope of use of these types of special leave was expanded (for child rearing, long-term care, etc.). Training programs on diversity and harassment for executive officers 2) Foreign nationals (3) (New graduates [next spring]/loaned employees) 3) None ❷ Rewarding workplace that employees can be proud of 1) Understanding and improvement of employee satisfaction with their workplace (i) An employee satisfaction survey was conducted in November 2016. (ii) Not achieved (scheduled for the second half of the fiscal year)	❶ 1) ○ 2) ○ 3) × ❷ 1) △	❶ Will be continued. ❷ Will be continued.	❶ Embracing diversity The employment rates of women, disabled people, older people and foreign nationals will be increased. The creation of a corporate culture where the abilities of a diverse range of workers can be maximized will be promoted as will the improvement of the work environment. ❷ Creation of a rewarding workplace that employees can be proud of: Employee satisfaction levels will be identified and improved. In-house communications will be strengthened and programs for human resources development will be improved.	p.61

Note: Achievement rate ◎: ≥ 90% ○: 90–80% △: 80–60% ×: ≤ 60%

Note: For measures taken to address violations of laws and regulations, please see page 88.

Stakeholder dialogue

Materiality as defined by Nippon Soda and CSR activities to improve corporate value

A stakeholder dialogue was held on the theme of “CSR activities to improve corporate value” with experts from outside the Nippon Soda Group for the purpose of increasing the positive effect we can have on society as a chemical company, and for promoting strategic CSR that will help build a sustainable society.

The Nippon Soda Group is striving to build a sustainable society by addressing important CSR issues (materiality) that were identified in 2016. The materiality identification process was conducted by implementing a materiality analysis, in addition to evaluating its appropriateness, through dialogue with experts.

In 2017, we determined KPIs in accordance with each materiality issue for the three areas of “CSR activities to improve corporate value,” “CSR activities to protect corporate value” and “social activities,” and held an expert dialogue on the theme of “CSR activities to improve corporate value,” which is also a theme associated with the SDGs. During the dialogue, we received a variety of advice on activities that would enable us to improve the corporate value of the Nippon Soda Group, such as creating new solutions in the existing business domains and developing unique innovations as a chemical company.

The developed KPIs have been established as common goals for the entire Nippon Soda Group. This will serve to help us realize materiality and improve our performance in our CSR activities overall. Furthermore, we will manage our progress with the identified materiality issues and KPIs so as to steadily advance the Group’s activities toward the development of a sustainable society.

Note: At the stakeholder dialogue held on December 9, 2016, we held discussions on materiality of the three important domains of agriculture, the environment and information in relation to CSR activities to improve corporate value. To these, the fourth domain of health care was added in April 2017. (For more information on CSR and materiality of the Nippon Soda Group, please see page 14.)

Advice from the experts

Reviewing business from the outside in[1] will help connect social issues with it

Damage inflicted on agriculture as a result of climate change is an important global issue that needs to be resolved. This was also the theme of the 22nd United Nations Climate Change Conference (COP22) held in Morocco in 2016. Against this background, smart agriculture is attracting attention as a new solution toward resolving such agricultural issues. Perhaps the Nippon Soda Group should also look into this. I recommend that you acquire an understanding of a broad range of social issues associated with agriculture, such as water conservation in agricultural irrigation and the advancement of greening efforts, and take a fresh look at things based on an outside-in perspective of how your business could be utilized to further such efforts.

Efforts in tackling SDGs are effective, especially because this is an era of transformation[2]

The high level of quality of RC activities conducted by chemical companies is well known throughout the world, but I’d like to applaud the Nippon Soda Group’s attitude in establishing even higher goals in their efforts with the SDGs and G4. In the chemical field, we will probably see the birth of such solutions in the form of materials and products that will help us move away from a carbon-based economy. We will probably find even more touch points for the 169 targets of the SDGs. I look forward to the transformative benefits of the power of chemistry. Also, based on the fact that today’s world requires active dialogue with society, I hope that you will also consider risks to human rights throughout the entire value chain.

Masao Seki
Specially-appointed Associate Professor at Meiji University
Senior Advisor on CSR at Sompo Japan Nipponkoa Insurance Inc.

There are expectations for unique innovation and collaboration as can only be achieved by a chemical manufacturer

I hope that you will look for possibilities for unique innovation, in a manner that is not inhibited by past failures, as you proceed with your efforts in promoting CSR that improves corporate value. The Nippon Soda Group is conducting its business activities with integrity, but it is lacking in uniqueness. Instead of looking only at productivity, how about simultaneously seeking to add value with the provided solutions? Going forward, BtoB[3] companies will also move into the realm of BtoC[4]. Therefore, it may be a pivotal moment to redefine your value chain into one that incorporates consumers’ perspective, which will require open communication with society. If you succeed in doing so as a chemical company, further public expectations will be placed on Nippon Soda.

Taking inventory of your business, from a perspective of impact, will add depth to the value creation story

There is a limit to what one company can achieve in solving social issues on a global scale. Going forward, I think our era will be about creating value with a perspective oriented toward collaboration. Thus, I hope you will actively look into opportunities for working in collaboration with other companies. For example, you might propose including a business structure based on the Nippon Soda Group’s core competence within a mega system of other companies, such as the agricultural plants being constructed in Southeast Asia. Another effective method for seeking new possibilities is to benchmark specific suppliers of products in the value chain. I hope you will develop a new story of value creation for Nippon Soda by being both meticulous and bold in your efforts.

Manabu Akaike
President of Universal Design Intelligence Inc.
Director of the Japan CSV Business Development Organization
Journalist on science and technology

1, 2, 3, 4. For more information, please see the glossary on page 92.

The Nippon Soda Group—Closing in on the Future

A robust discussion was held on making social contributions through business under the theme of conducting CSR activities to improve corporate value. The following are summaries of the points raised during the discussion.

Agriculture

Contribution to ensuring food safety and security and sustainable agriculture using agrochemicals

Seeds for the future

Worldwide increase in food and feed production through agrichemicals

Diversification in plant protection through biopesticides

Improvement of user safety and reduction of environmental impact

A major role of agrichemicals is to increase agricultural harvests, with consideration for the region's environmental characteristics. Thus, the Nippon Soda Group is in a position to help make contributions in this area toward eliminating hunger in developing countries. Additionally, as a developer and manufacturer of agrochemicals, we consider improving user safety and reducing environmental impact as being essential aspects of our CSR activities. With regard to biopesticides, we are considering business possibilities and social values from multiple perspectives. In the future, we would like to provide new solutions for not only agrochemicals but also greening issues, and for the protection of pets and livestock animals.

Advice from the experts

The worldwide trend today is to make visible the relationship that exists between companies and the protection of the ecosystem. Perhaps it would be possible to utilize impact evaluation on the scope and method of agrochemical usage in assessing the level of ecosystem protection. The challenge of realizing biodiversity through the use of biopesticides will help develop a sustainable agricultural environment. We hope that you will advance such efforts as a unique innovation that enhances the corporate value of the Nippon Soda Group. Awareness-building activities in relation to agrochemicals in developing countries is an important part of risk communication, but in the future, instead of targeting such communication only at people affiliated with agriculture, we hope that you will expand such dialogues to include residents as well as students who will be the next generation of agricultural industry workers.

Environment

Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)

Seeds for the future

Reducing environmental impact through products for resource recycling (HI-CHLON and HIDION)

Contributing to PCB detoxification

HI-CHLON, which contributes to the stable supply of water resources, is a product that has outstanding functionality and is capable of treating a substantial amount of water. As such, demand for this product is expanding overseas, such as in Europe, the Middle East and Asia.

As for PCB detoxification treatment as stipulated in the Stockholm Convention, public calls for this have grown in the domestic market. The demand for HIDION, which processes heavy metals contained in fly ash[1] produced during waste incineration, is expected to increase as rules and regulations become increasingly stringent.

1. "Fly ash" refers to ashes and dust collected at the gas emission exit of the dust collection equipment, as opposed to the main ash (incineration ash) emitted from the bottom of the incinerator.

Advice from the experts

These can be said to be technologies with extremely high social consciousness toward contributing to global environmental conservation. Since this is a field of business that is interlocked with environmental policies of the respective countries, there may be aspects that make it difficult to actively promote these products in some countries. However, the SDGs clearly state that private companies should contribute to resolving social issues in different regions. In the future, we are likely to see increased opportunities for existing businesses to make contributions toward global issues. From the perspective of recycling water, it might be worth thinking about expanding the scope of application of the technologies behind Nippon Soda's disaster toilet, the Suketto-Toilet, toward helping with the serious problem of toilets in developing countries.

Dialogue participants (at the time it was hosted)

Experts: Manabu Akaike, President of Universal Design Intelligence Inc., Director of the Japan CSV Business Development Organization, science and technology journalist
Masao Seki, Specially-appointed Associate Professor at Meiji University, Senior Advisor on CSR at Sompo Japan Nipponkoa Insurance Inc.

Nippon Soda Co., Ltd.: Masahito Ikeda, PhD, Executive Officer, General Manager, Corporate Social Responsibility Department / Kiyotaka Machii, Executive Officer, Manager, Corporate Planning Group / Atsushi Ogihara, Group Leader, Environment and Quality Management Group, Corporate Social Responsibility Department / Takayuki Okamoto, Manager, Business Strategy & Administration Department, Agro Products Division / Toshiyuki Kato, General Manager, Environmental Chemicals Department, Chemical Business Division / Hayato Oono, General Manager, Functional Chemicals Business Department, Chemicals Business Division / Yasuo Yamada, Manager, Chemical Development Department, Chemicals Business Division

Information

Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials

Seeds for the future

Contributing through materials that promote weight reduction and improved operability of mobile devices

Providing materials to support universal design

We supply polymers used in approximately 400 million high-end mobile devices by utilizing highly advanced polymer technologies that have been nurtured over many years. At the dawn of the IoT (Internet of Things) era, mobile information devices that are highly lightweight and easy to operate are becoming essential to everyday life.

We will continue to make contributions by supplying high value-added materials in order to realize ease of use for all persons, including disabled persons, seniors and children.

Advice from the experts

Instead of looking only at the impact in terms of the number of mobile devices (terminals), we would like for you to create an opportunity to discuss specific effects that looks at what values were provided to people who use the technologies of the Nippon Soda Group. By incorporating the perspectives of stakeholders into existing technologies, we think it may elevate such technologies, transforming them into solutions where the social aspects stand out even more. Furthermore, how about thinking about projects that communicate the relationship between chemical materials and universal design to children? This would be an initiative with high social value that would lead to the creation of new solutions for the next generation.

Reflections after the dialogue

Differences in what's seen from within and from without

Masahito Ikeda, PhD
Executive Officer, General Manager,
Corporate Social Responsibility Department

The dialogue this time made me realize that the experts are able to see things that we do not notice, since we are looking at our customers and stakeholders from within Nippon Soda through the lens of our products and technologies.

The following perspectives gave us major clues on how we should advance our social contribution activities through our business in the future: reviewing things from an outsider's perspective will help connect social issues with our business; efforts in tackling SDGs are effective, especially because this is an era of transformation; there are expectations for the kind of unique innovation and collaboration that can only be achieved by a chemical manufacturer; and taking inventory of our business, from the perspective of impact, will add depth to the story of value creation.

For example, I am now thinking about the following, which I had not noticed when I was looking at things from within: assessing the effects on the ecosystem through impact evaluation of the scope and method of agrochemical usage; making global contributions through the use of the Suketto-Toilet; and initiatives to communicate how chemical materials are associated with universal design to the next generation of children.

I hope to make use of what we have learned in our future CSR activities to improve corporate value.

[Positioning of the stakeholder dialogue]

The process for identifying materiality that the Nippon Soda Group needs to be involved in was advanced by the following four major steps.

Step1 Identification and prioritization
Step2 Validation and identification through expert dialogue
Step3 Reporting to and approval from the Nippon Soda Group's management
Step4 Implementation of PDCA

The previous dialogue that was held in 2015 was positioned under Step 2. This time, being the second stakeholder dialogue, we received advice on those things that were in the execution stage of Step 4 and on our efforts and KPIs with regard to initiatives on materiality that were implemented over the past year.

Special Section

1 Agriculture

Contribution to ensuring food safety and security and sustainable agriculture using agrochemicals

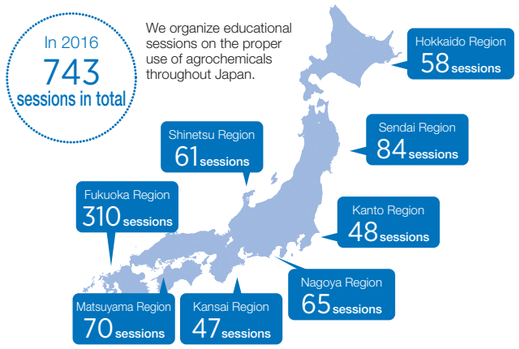
Future without Food Shortages

Focus

According to one international organization, the world population is estimated to increase by about 30% to exceed nine billion people by 2050. It is therefore considered necessary to secure not only food but also the production of crops used to feed livestock, as the production of meat will increase in developing countries.

However, because the amount of global land available for future crop production is limited, except for in some parts of South America and Africa, it is important to spread the use of agricultural machinery, fertilizers and agrochemicals. Agrochemicals are essential for protecting crops from pests and weeds not only to increase yields and improve quality but also to reduce the burden of labor on farmers.

Nippon Soda will contribute to better dietary habits and sustainable agriculture through the development of agrochemicals and education on their proper use.



Proper use to ensure increased crop yields

To ensure food yields through the use of agrochemicals, it is important to provide users with information to help them use the agrochemicals correctly and effectively and in the proper amount by taking into account crop cultivation methods, which are advancing day by day, and technology to control and eliminate pests. We organize local seminars and farmers' meetings to promote educational activities designed to share information on how to use agrochemicals.

We will continue our efforts to develop and provide new agrochemicals that are effective for controlling pests and weeds and have less impact on people and the environment, and to promote educational activities to spread information on proper use, with the aim of contributing to ensuring increased crop yields.

Supplying new agrochemicals to global niche markets

At present, there are only around four or five multinational companies in the world engaged in the discovery of new agrochemicals through large-scale business activities mainly involving agrochemicals for large-size crops, plus a few Japanese manufacturing companies that support global niche markets (niche crops and pests/weeds). As one of these, Nippon Soda has developed many new agrochemicals under a research system that includes a comprehensive research process from evaluation of drug efficacy and safety and drug-associated health hazards to manufacturing of intermediates and preparations. We evaluate our products in our research fields in three places with different climates (Shizuoka, Fukushima and Hokkaido) in Japan and also in Brazil and France. Our research efforts are also focused on controlling and preventing insecticide-resistant pests and weeds, which are expected to become a serious issue in the future due to global warming and other climate changes.

We sell our agrochemicals mainly via eight offices in Japan and six overseas (the U.S., Europe, Brazil, China, South Korea and Bangkok). These offices also collect customer information, including customer needs, from local distributors and trading companies, which are then reflected in product development. In 2017, Nisso Chemical India LLP (Gurgaon, India) starts operation as our seventh overseas office.

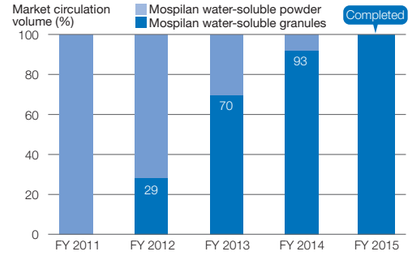
The ratio of overseas sales of our company is as high as 60%. In the future, an emphasis will be placed on expanding sales and promoting educational activities in India and Vietnam with the aim of ensuring food yields in global markets.

Development of agrochemicals friendly to people and the environment

To provide more diverse technologies to control and eliminate pests, Nippon Soda is developing not only chemical pesticides but also biological ones. Biological pesticides contain living organisms, such as microbes and insects, as active ingredients and are safe to use for organic farming. We are currently selling two biological pesticides friendly to the global environment.

We also improve our products to enhance user safety. For example, we changed the form of our insecticide MOSPILAN, one of Nippon Soda's best-known products, from water-soluble powder to water-soluble granules. The replacement was completed in 2014. The new form produces less dust when the package is opened and when the contents are diluted, reducing users' exposure to the agrochemical.

Contribution to improving the safety of users



VOICE

Easy-to-use agrochemicals and the latest information help ensure crop yields.

The following are comments from farmers who participated in the educational session on Nippon Soda's agrochemicals held in Choshi City in Chiba.

Educational session for farmers on how to use a new insecticide

Mr. Hiroo Watanabe, a cabbage farmer
The educational session helped reassure me of the safety and efficacy of Nippon Soda's agrochemicals. I will continue to use them. I was particularly impressed by the broad lineup of fungicides for horticulture provided by Nippon Soda. I think the most recently launched insecticide has superior long-lasting effects against pests. I look forward to the company developing insecticides and mixtures of insecticide and fungicide that are effective against Lepidoptera.

Mr. Eiichi Shibata, a tomato farmer
Nippon Soda's treatment method to irrigate seedlings in pots is excellent in terms of power saving and its effect is long lasting, so I'll continue to use it. I have used more than six different kinds of Nippon Soda's agrochemicals and all can be used on any crop without causing any problems. They are trustworthy products. I hope to see Nippon Soda developing mixtures of insecticide and fungicide.

Special Section 2 Environment

Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)

Supply of safe water

Improving Living Standards with Safe Water throughout the World

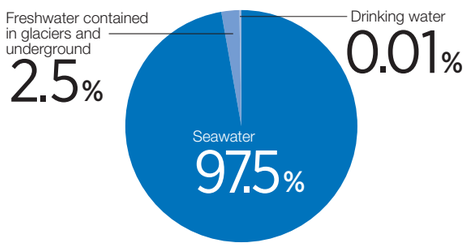
Focus

The Earth is called “the water planet.” However, only 0.01% of the Earth’s water is freshwater suitable for drinking. Most of the Earth’s water is seawater and most freshwater is in glaciers or underground. As the world’s population is increasing, the demand for safe water, which is essential for comfortable living, is also increasing. At present, according to a UN survey, 660 million people are suffering from a shortage of safe water.

Nippon Soda provides solid chlorine agents that have low susceptibility to regional differences. Through efforts to make them widely available, we contribute to water sterilization and disinfection and hygienic management.

World water resources

Amount of water on the Earth: About 1.4 billion km³



Source: Water Resources in Japan (2003), Ministry of Land, Infrastructure, Transport and Tourism

Contributing to the stable supply of water resources

Public demands for a stable and environmentally sustainable supply of safe water resources to secure the availability not only of drinking water but also water to support everyday life have been increasing in Japan and various other regions throughout the world.

Nippon Soda, a chemical manufacturer, provides products useful in maintaining a hygienic social environment. Among them, NISSO HI-CHLON, a chlorine agent mainly used for disinfecting water in swimming pools and water discharged from septic tanks, commands a large market share.

Chlorine agents effective in hygienic management of water for daily activities

Chlorine-based disinfectants are available in two forms, liquid and solid. Chlorine agents, which have low susceptibility to regional differences, are used in various regions as disinfectants effective in the sterilization and hygienic management of water. In Japan, it is recommended that residual chlorine in tap water be at least 0.1 ppm[1] in order to maintain a high quality of drinking water.

Nippon Soda’s solid chlorine agent is mainly used as a water disinfectant for local swimming pools open to the public, which includes everyone from children to seniors. As part of efforts to ensure the safe use of our product, we hold training sessions for swimming pool operators on how to use solid chlorine agents.

We will continue to supply chlorine agents useful for the management of water hygiene so that people can have and use safe water in their daily lives.

1. One ppm is equal to 0.0001%. “ppm” stands for “parts per million.”

Expanding use of solid chlorine agents in the Middle East and Southeast Asia

Nippon Soda’s NISSO HI-CHLON is a solid chlorine agent that has been contributing to the management of water hygiene for more than 50 years since its launch not only in Japan but also in various regions around the world. In recent years, demand for the product has been increasing in Southeast Asia and the Middle East.

In step with the economic development of Southeast Asian nations, demands for safe water have been increasing at a rapid rate not only in urban areas serviced by large-scale water purification plants but also in peripheral areas where such large-scale facilities are not available. In these countries, the use of solid chlorine agents has been expanding because they can be used regardless of the scale of facilities. In the Middle East, which is in the tropical dry climate zone, the chlorine contained in liquid chlorine agents can be vaporized during transportation. For this reason, with seawater desalination projects prevalent in the region, the demand for solid chlorine agents is increasing extensively in this area because of their relatively low susceptibility to climate-related factors.

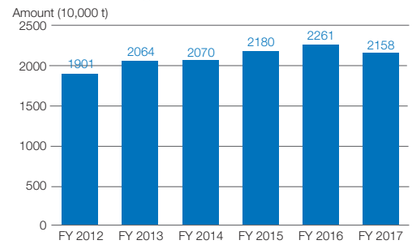
Providing safe water to people around the world

The amount of water that can be disinfected and sterilized using Nippon Soda’s solid chlorine agent is 22 million tons per year.[2] This is a tiny amount compared with the annual amount of wastewater discharged from households in Japan, which is 13 billion tons. We at least contribute to helping local people live a comfortable life by supplying products useful in the management of water hygiene.

We will also direct our efforts to the identification of various regional needs not only in Japan but also in other countries so as to help people around the world live a good life with hygienically safe water.

2. Under the assumption that the entire amount sold is used to purify water

The amount of water that can be treated with solid chlorine agents sold by Nippon Soda



TOPIC

Safe water for shrimp farming

Shrimp farming

Japan is one of the biggest consumers of shrimp in the world. Most shrimp that reach our tables are imported. As a result of the recent trend toward healthy living, the demand for shrimp as a protein alternative to meat has been increasing also in the United States and Europe.

Cultured shrimp are grown in brackish water. For this reason, culture ponds are constructed along coastal areas and water is pumped out from a nearby river. NISSO HI-CHLON is used to kill various unwanted bacteria contained in the water. It is an agent essential for purifying pond water. As shrimp are sensitive to environmental stress, their growth is inhibited in contaminated water and, if infected, they may die en masse.

In response to an increasing global population, we supply safe and high quality NISSO HI-CHLON in a stable manner for shrimp farming to secure food sources.

Special Section 2 Environment

Contribution to ensuring the environmentally sound recycling of resources using chemistry (technical competence)

Reduction of environmental impact of waste

Reducing Environmental Impact Caused by Waste to Ensure Safe Living

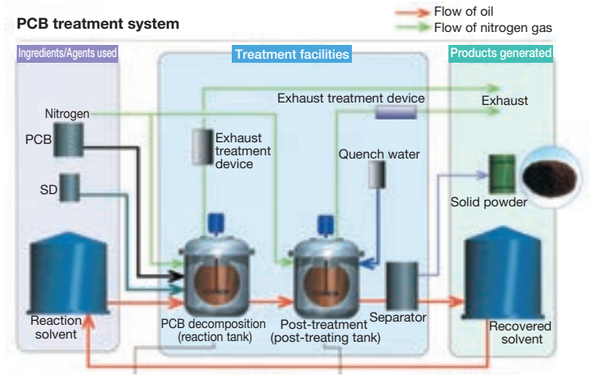
Focus

Substances that are useful as chemical products can harm ecosystems and the human body if they are not properly managed. For example, although polychlorinated biphenyls (PCBs) were widely used for insulating oil for transformers and condensers, their manufacture and use has been stopped.

Some substances can cause adverse effects on the environment when used and disposed of. Fly ash[1] emitted from waste incineration plants contains lead and other heavy metals. In Japan, it is legally required to immobilize fly ash.

Nippon Soda considers efforts to reduce the adverse impact of substances on the environment and the human body to be one of the missions of a chemical company.

1. While the residual ash left at the bottom of an incinerator is called main ash (incinerated ash), the ash collected by dust collectors installed at exhaust gas outlets is called fly ash.



PCB detoxification treatment system

Simply reacting chlorine atoms (Cl) in PCBs with sodium (Na) generates a detoxified substance (biphenyl) and salt (NaCl).

Nippon Soda's technology can treat PCB contamination caused in the past and allows detoxified oil to be used as fuel, thus contributing to the environmentally sound recycling of resources.

PCB detoxification using our proprietary technology

After PCBs were found to be toxic, the manufacture and use of PCBs were totally banned in Japan in 1971. Since then, PCB detoxification has been a social issue. Nippon Soda developed the sodium dispersion (SD) method in 1995 by applying technology that is used to manufacture its proprietary products. We received a patent for the SD method as the first chemical treatment method for PCBs in Japan and promoted its use widely.

In 1998, the Waste Management and Public Cleansing Act was revised to approve the use of chemical treatment methods. Nippon Soda then started not only providing its technology to the government and electric power companies but also getting involved in the design and construction of PCB treatment plants. In 2004, a PCB chemical treatment plant started operating at the Kitakyushu Office of the Japan Environmental Safety Corporation (JESCO) (the present Japan Environmental Storage & Safety Corporation). We are now responsible for the maintenance of the facilities to ensure stable operation.

Immobilization of heavy metals in fly ash from waste incineration

Nippon Soda's HIDION is a heavy metal stabilizer used to treat fly ash from waste incineration. By mixing the agent into fly ash, the ash is immobilized, preventing lead and other heavy metals from scattering and liquating. In the time immediately following its launch, there was scarcely any demand for HIDION. However, believing that demand for the product would increase as public environmental awareness grew, we promoted its wider use in cooperation with kneading machine manufacturers. At present, about one-third of fly ash emitted from general waste treatment facilities throughout Japan is immobilized by HIDION.

ISO container of HIDION

TOPIC

Letter of appreciation from a PCB treatment plant

Letter of appreciation

We received a letter of appreciation from Tohoku Electric Power Co., Inc. on April 13, 2016 for our contribution to its PCB detoxification treatment project.

In April 2007, Tohoku Electric Power's insulating oil recycling center started operation using Nippon Soda's SD method to detoxify insulating oil containing a small amount of PCBs (5,000 mg/kg or less). In August 2015, the detoxification was completed and the treated amount reached about 30,000 kiloliters.

We supplied our SD agent for detoxifying PCB to the recycling center and were involved in the maintenance and management of the facilities to ensure its stable operation. We received a letter of appreciation for the successful completion of the PCB detoxification project without any incidents or accidents during the center's operating period.

Special Section

3 Information

Contribution to the development of information appliances friendly to the environment and people by supplying high-function materials

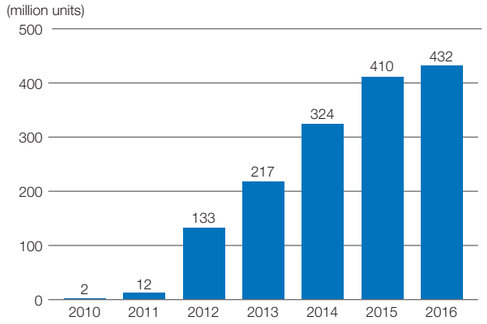
Materials Friendly to People and the Environment, in Use and in Manufacturing

Focus

Thanks to broadband Internet connections, we can now send and receive information anytime, anywhere. Tablet terminals are used in classes in kindergartens and elementary schools. Senior citizens carry a smartphone. Products featuring universal design have become available so that a diverse range of people can use them comfortably.

As a chemical manufacturer, Nippon Soda manufactures functional chemicals friendly to people and the environment, contributing to the spread of information terminals that can easily be used by anyone.

Shipments of portable communication terminals using our polymers (estimate)



Expectations for functional polymers

Smartphones and tablets became widely available in 2010. In 2016, the number of shipped units reached 2.3 billion. NISSO-PB is used in about 20%[1] of these portable terminals.

1. Our estimate

Plastic materials to facilitate the application of universal design

Nippon Soda supplies its functional chemicals to be used as plastic materials to manufacturers of materials for portable terminals. Because they are not final products, their connection with universal design may not be readily apparent. As broadband becomes widely available, however, there have been increasing demands for portable terminals that are easy to see, light in weight for easy carrying, and not easily broken when dropped. As market needs have changed, NISSO-PB, which was developed more than 40 years ago in the 1970s, has recently attracted attention as a highly functional liquid polymer with features that are essential for the universal design of final products, namely, it is lightweight and durable, has high permeability and does not easily deteriorate over time.

Functional chemicals are developed to meet the needs of parts manufacturers and other users, which change with the times. Since its initial development, NISSO-PB has undergone improvements, such as the removal of impurities to achieve better permeability. It will continue to contribute to society as a plastic material that facilitates the application of design that makes products universally easy to use.

High-performance materials friendly to people and the environment in manufacturing

Social change can provide an opportunity for the generation of new functional chemicals. In response to increasing awareness around environmental issues, Nippon Soda has developed non-halogen epoxy polymers with less negative impact on the environment and liquid polymers that can be processed without using volatile organic solvents such as paint thinner. NISSO-PB, one of these liquid polymers, contributes to reducing environmental impacts in our customers' manufacturing processes.

The mission of manufacturers of materials at the upstream end of a supply chain

The strength of Nippon Soda lies in its ability to develop high-purity functional chemicals using its proprietary technologies, such as living anionic polymerization. However, the development of unique, one-of-a-kind products is not sufficient if we are to maintain our status as a chemical manufacturer that contributes to society. It is also necessary that we make constant efforts to understand social needs that keep changing as time passes, such as providing materials that facilitate promotion of universal design and reduction of negative impacts on the environment. To do this, we proactively take actions to improve the functions of functional chemicals through communication with customers. The mission of chemical manufacturers situated upstream of manufacturing processes is to identify future needs and manufacture materials that are useful in the supply chain using the power of chemistry.

TOPIC

Understanding the importance of communication with visitors to exhibitions

Our booth at ECS

A presentation of Nippon Soda's products at ECS

In April 2017, we participated in the European Coating Show (ECS). Nippon Soda's functional chemicals sold on global markets evolve in response to customer needs and generate opportunities for innovation with chemistry.

Number of companies participating in ECS 2017 and number of visitors
[Number of visitors]
More than 30,000 visitors from more than 100 countries
[Number of participating companies]
1,135 companies from more than 40 countries

4
Education for the Next Generation

Development of Next-Generation Leaders in Manufacturing

Focus

The Nisso Takaoka Academy was opened in FY 2016 to provide systematic training programs for newly employed personnel assigned to manufacturing. At Takaoka Plant, while a large number of experienced employees are reaching the mandatory retirement age, an increasing number of employees have been newly hired in preparation for the development and launch of new products. In these circumstances, the passing on of technologies has been a big concern.

Through developing employees who can manage and maintain a safe manufacturing site with high productivity, the Nippon Soda Group will continue to provide high-quality products.

Outline of the Nisso Takaoka Academy

■Session in the first half of 2016
(first term, starting in May)

Number of participants: 21 (Takaoka Plant, Nihongi Plant, Chiba Plant, Mizushima Plant)

Main training themes

- Safety education: How to use protective equipment, specific method to apply the 4 Safety Cycles
- Educational program by the Engineering Department: Summary of maintenance and diagnosis technology, mechanism and properties of unit apparatus, how to read engineering flow diagrams (EFDs)
- Educational program by the Manufacturing Department: How to use tools and instruments, hands-on training on pipe assembly and airtight tests and identification of KY and hiyari-hat (near miss) incidents

Objective of the session

To acquire basic knowledge and learn about basic machine structure so as to improve safety awareness

■Session in the second half of 2016
(second term, starting in October)

Number of participants: 16 (Takaoka Plant only)

Main training themes

- Basics of chemistry: Properties of substances to be handled (ingredients, products, etc.)
- Educational program by the Engineering Department: Basics of chemical engineering, distributed control system (DCS), analyzer, steam

Objective of the session

Building on the first-term session in the first half, the second-term session is designed to be more practical. Participants acquire the minimum level of chemical knowledge that is needed to work at a chemical plant, including on-site observation.

Increasing awareness both of new recruits and employees serving as instructors

The Takaoka Plant launched the Nisso Takaoka Academy to provide systematic education to new employees immediately upon their starting work. This is in line with our recognition that it is necessary to provide every one of our employees with an opportunity to develop a solid foundation of knowledge and skills. In training at the Academy, documents and forms that are actually used at the plant, such as the KY sheet and the hiyari-hat sheet, are used. Participants learn about the importance of ensuring safety not only in their own work but also for others. They also learn about the meaning of each task by actually engaging in the activity and taking the time to reflect and review their performance before and after each task.

Employees who serve as instructors at the Academy also improve their own understanding. To teach a subject, they must understand it deeply and completely. The need to do this leads them to the realization that they too must study harder.

Programs evolving with on-site needs

Academy programs are prepared in response to on-site needs. For example, an understanding of oxygen deficiency is necessary to perform work inside a tank safely. A lecture on this subject is thus included in the program so that new employees can take part in the periodic maintenance conducted in July. These educational programs were only provided at Takaoka Plant for the first year. In response to the large number of requests for these practical and proactive programs from other plants, the Academy's programs will be provided at all of the four manufacturing worksites of Nippon Soda in FY 2017 and at Group companies in FY 2018.

Through its education, the Academy aims to develop human resources who can identify all relevant risks and develop original measures to reduce them, and who can take actions proactively, in order to maintain a safe manufacturing work environment, operate manufacturing sites with high productivity, and continue to manufacture products without any accidents.

Visualizing the future of individual employees by reviewing career paths

Takaoka Plant developed an educational model for employees engaged in manufacturing based on the career paths of staff members at the Production & Technology Laboratory and other relevant information. This model helps employees to visualize areas in which they are lacking and make a plan for future growth. The Nisso Takaoka Academy serves as their starting point.

It would be unrealistic to expect any immediate significant effects of the education provided at the Academy. However, after completing the training, participants are equipped with the basic knowledge of tools names and work procedures that are required at their assigned worksite. Before the launch of the Academy, employees learned only what was necessary for their particular tasks on an as-needed basis. Participants of Academy programs are also better aware of the importance of safety in their work than non-participants. These are the positive effects of practical education and safety education at the Academy.

The Academy prepares an "Assessment Sheet" for use by both participants and instructors for mutual evaluation. Assessment results are used to provide appropriate recommendations and raise awareness of both trainees and trainers.

TOPIC

Education through actual experience to develop sensitivity to hidden dangers at worksites

Experiencing the effect of the safety belt

The objectives of the Academy are to help employees acquire the knowledge and skills required to work at a chemical plant and to create an opportunity to raise their awareness of safety through actual work experience.

Instructors, who were selected from among experienced employees in each department, were enthusiastic teachers, covering everything from tabletop exercises to practical skills. Participants received training in a positive manner. In practical exercises, they cooperated with each other to learn appropriate methods of performing tasks, including how to disassemble and assemble pumps and pipes.

Many of their comments on the safety education through actual experience indicated that they were able to understand that there are more hidden dangers at a chemical plant than they thought.

5 Research and Development

Contributing to Society Using the New Power of Chemistry to Ensure Increased Crop Yields and Protect the Environment

Focus

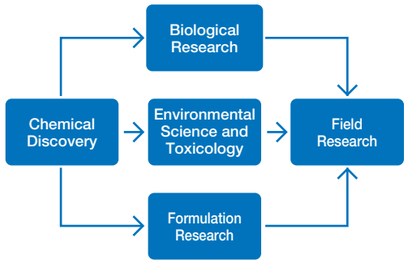
Nippon Soda's efforts in research and development center on agrochemicals and functional materials.

In the agrochemicals sector, Odawara Research Center plays a leading role in developing products that can help ensure increased yields and quality on global markets. In the area of functional materials, Chiba Research Center plays a leading role in developing functional materials that meet social needs in the domains of medicine, the environment and information.

In the future, we will expand our development efforts into new business areas so as to more widely contribute to society.

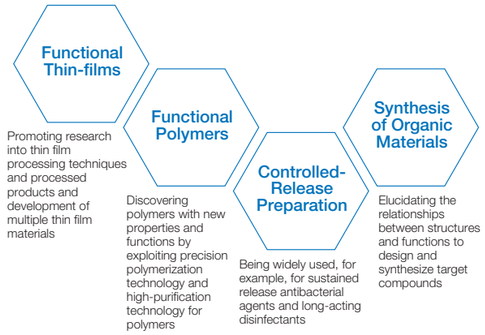
Odawara Research Center

Promoting effective development of new agrochemicals using our company's research fields



Chiba Research Center

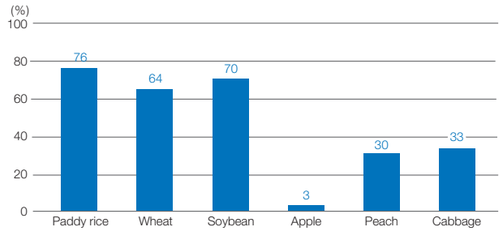
Promoting development of new functional chemicals and research on production and technology



Contributing to labor saving and increased yields for farmers

With its superior technologies for identifying, synthesizing and evaluating chemicals, Nippon Soda conducts efficacy tests in its experimental fields and safety tests using its GLP testing facilities. The company has the practicality of its chemicals tested by public institutions. Through these testing processes, we develop agrochemicals that meet farmers' needs and market expectations. In addition to chemical pesticides, in response to increased global awareness regarding environmental protection, we have been strengthening our efforts to develop biological pesticides. As a manufacturer of agrochemicals, we supply our own brand of agrochemical products to farmers and contribute to saving their labor and increasing crop yields. As global population is concentrating in urban areas and the number of people engaged in agriculture is decreasing, we anticipate expectations for our development of agrochemicals to increase.

Damage to agricultural products when no agrochemicals are used (yield ratio)



Source: Prepared by modifying "Byogaichu to Zasso niyoru Nosakumotsu no Sonshitsu" (Damage to Agricultural Products caused by Pests and Weeds) 2008, Japan Plant Protection Association

Note: Assuming yield ratio is 100% under normal use of agrochemicals

Developing a wide range of functional chemicals that meet social needs

Many functional chemicals are situated at the upstream end of a supply chain. It is therefore important to develop materials that meet social needs in cooperation with users and various other stakeholders. In the polymer product field, for example, with our unique proprietary technologies, such as living anionic polymerization and the metallic sodium dispersion (SD) method, we design and develop products that meet user needs. NISSO-PB, which was thus developed, has become one of our major products as the IoT continues to expand. Our development efforts are also focused on materials that take into account the entire life cycle. For example, biodegradable plastic is more environmentally friendly than conventional plastic and does not consume energy for incineration when disposed of.

Creating new value

To develop products that can contribute to the development of society, it is important to develop researchers who can come up with unique ideas, based on which they can provide new value through the power of chemistry while taking into account the overall big picture view in line with the direction in which society and the company are heading. To this end, Nippon Soda is offering overseas training and other programs to develop researchers with a broader view.

VOICE

Adding new perspectives gained through overseas training to research and development

Kazuya Shimizu
Overseas Production Planning & Management Department
Production & Technology Division

After being engaged in research on discovery and synthesis of new agrochemicals for eight years, I received training at Novus International, Inc. in the United States for about one year from September 2014. Novus International, one of the Nippon Soda's overseas group companies, manufactures and markets feed additives globally. While I was there I learned about production management.

Both feed additives and production management were new to me and, through the training, I was able to gain new experience and knowledge.

Also through communication with production sites across the world, I found it important in working overseas to understand the differences in culture and in laws and regulations.

About six months after returning to Japan, I was transferred to the department I am currently with and have been engaged in supporting overseas production. I hope to contribute to the development of the company based on the experience I gained through the training.

Environmental Protection

With the goal of minimizing the impact of our business activities on the environment, the Nippon Soda Group is engaged in environmental protection with a focus on saving energy and resources, reducing and recycling waste, and reducing emissions of harmful substances.

Basic Concept

It is our responsibility to protect the global environment and contribute to the sustainable development of society. The Nippon Soda Group will continue its efforts not only in preventing environmental pollution and complying with laws and regulations but also in reducing the environmental impacts associated with its business activities (prevention of global warming, reduction in waste generation and the amount of final disposal of waste in landfills) as well as developing products and processes with less environmental impact.

Policy for FY 2018

Efforts will be focused on energy saving, resource saving, reduction and recycling of waste, and reduction of harmful substance emissions so as to minimize the impact of our business activities on the environment.

Nippon Soda has introduced an environmental management system at all plants and one research center.

Environmental protection

Responses to climate change issues

Efforts to prevent global warming are important. Nippon Soda participates in the Commitment to a Low Carbon Society, a voluntary action plan promoted by the Japan Business Federation (Keidanren). Under the action plan, we are promoting energy saving to achieve the reduction targets for CO_2 emissions in FY 2021.

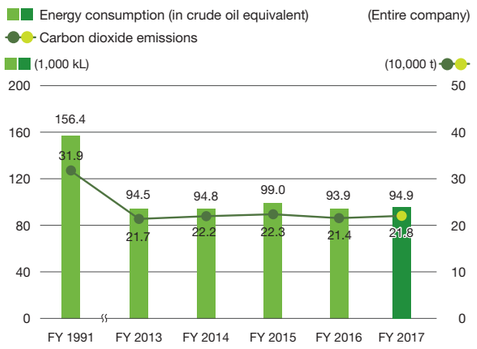
Reduction of energy consumption

Under its policy of energy use rationalization, Nippon Soda is making company-wide efforts to improve its energy use per unit of production, such as the replacement of old and obsolete equipment with highly efficient models, the streamlining and energy consumption reduction of production processes, and the implementation of power-saving measures.

The energy use per unit of production by Nippon Soda for FY 2017 was reduced by 0.5% compared with the previous fiscal year, thanks to the adoption of energy-saving devices, changes in manufacturing conditions, improvement and proper management of air-conditioning and lighting systems, and other measures.

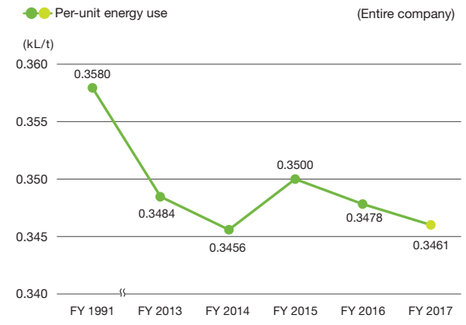
We will continue our efforts from various approaches to enhance energy saving, such as improvement of production processes, adoption of energy-saving devices, visualization of energy consumption, and implementation of power-saving measures.

[Figure 1] Changes in energy consumption and CO_2 emissions



Note: In FY 2010 and later years, the amounts of consumption at the Head Office, branches and other offices were included. The data collection area at Chiba Plant was changed.

[Figure 2] The energy use per unit of production



Reduction of greenhouse gas emissions

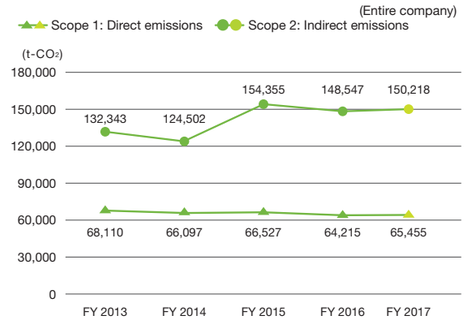
Nippon Soda has been implementing measures to reduce greenhouse gas (GHG) emissions. Despite our efforts, GHG emissions in FY 2017 increased by 1.5% from the previous fiscal year due to an increase in energy consumption in production activities.

Figure 3 shows changes in greenhouse gas (GHG) emissions arising directly from the combustion of fuels (gasoline, kerosene, light oil, heavy oil A, heavy oil B and C, LPG, and city gas) at worksites (Scope 1: direct emissions) and GHG emissions arising out of the use of electricity and heat supplied by external sources (Scope 2: indirect emissions).

Scope 1 and Scope 2 increased by 1.9% and 1.1%, respectively, from the previous year.

The volume of GHG emissions from the use of electricity has been adjusted.

[Figure 3] Changes in GHG emissions for Scope 1 and Scope 2



Use of renewable energy

Nihongi Plant draws its industrial water from a river. Since November 1940, the plant has been generating electricity hydraulically using the difference in elevation when returning excess water to the river. The maximum power output before March 2007 was 50 kW and that since then has been 35 kW. Since the establishment of the hydroelectric facility, generated electricity has been effectively used for production activities at the plant. We will continue to carefully maintain the Shibue-gawa Power Station for the continued generation of renewable energy.

Hydroelectric power generation at Nihongi Plant

From the hydroelectric power station to the water tank

Promotion of energy saving by the Logistics Department

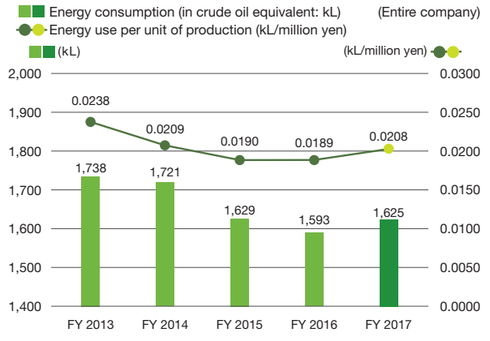
As a specified consigner designated under the Act on the Rational Use of Energy (Energy Saving Act), Nippon Soda submits an annual report and an annual plan to the Ministry of Economy, Trade and Industry as well as implements measures to reduce energy use per unit of production.

Nippon Soda has been making efforts to improve efficiency and reduce environmental impacts in terms of logistics through modal shifts, reducing the number of trips by using larger-sized shipping containers and adjusting logistics distribution routes.

It is particularly noteworthy that we were certified in 2013 as an “Eco Rail Mark” company for our modal shift efforts.

With regard to the energy use per unit of production (sales) of Nippon Soda in FY 2017, energy consumption increased by 2.0% and energy use per unit of production increased by 10.1% because the number of products with a low sales price per unit of weight that were shipped from major plants was larger than that in the previous year. The average change in energy use per unit of production during the past five years was 96.7%.

[Figure 4] Changes in energy consumption related to transportation and energy use per unit of production



Effective use of resources and reduction of waste

Nippon Soda implements measures to reduce 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 of final disposal of industrial waste to landfill.

Proper waste management and reduction of final disposal to landfill

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

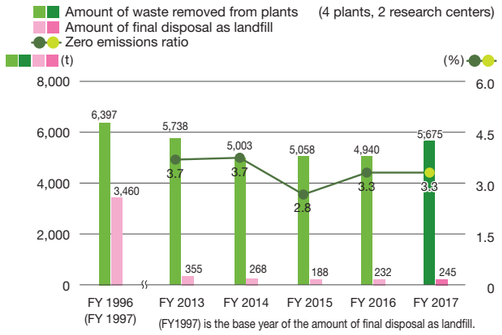
In FY 2017, despite these efforts, the amount of transported industrial waste increased by 12.8% and the amount of final disposal to landfill increased by 4.7%.

Zero emissions

Nippon Soda defines “zero emissions” as the state wherein the amount of industrial waste disposed finally to landfill is 5% or less of the total amount of transported industrial waste.

Nippon Soda has achieved zero emissions for eight consecutive years.

[Figure 5] Changes in the amount of transported industrial waste and the amount of final disposal as landfill



The amount of waste removed from plants does not include the waste sludge of activated sludge process at Takaoka Plant (which is treated with microbial autolysis at an external facility).
Base year of the amount of final disposal as landfill: FY 1997

PCB waste

PCBs (polychlorinated biphenyls) contained in condensers and transformers are required to be properly stored and detoxified in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Waste, which was revised in 2012.

Each Nippon Soda site properly stores and manages condensers, transformers, high-pressure mercury lamp ballasts and other devices that contain PCBs as prescribed under the aforementioned Act.

Condensers, transformers and other devices containing high levels of PCBs are registered with the Japan Environmental Storage & Safety Corporation (JESCO) for treatment. Devices containing a small amount of PCBs (5,000 mg/kg or less) are properly treated at a detoxification treatment plant certified under the Waste Disposal and Public Cleansing Act.

Atmosphere and water area protection

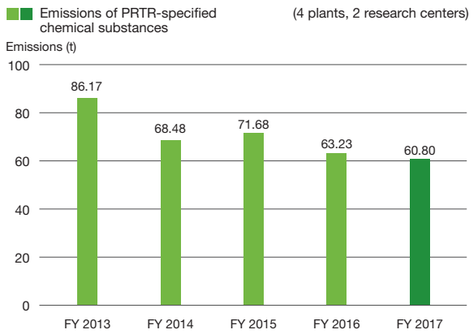
Nippon Soda implements various measures to protect the atmosphere and water quality in accordance with the Air Pollution Control Act, the Water Pollution Prevention Act and the latest regulatory trends.

Reduction of chemical substances specified by the PRTR Law

Nippon Soda takes measures to reduce emissions to the environment of Class 1 chemical substances specified by the Pollutant Release and Transfer Register (PRTR) Law, which was implemented in 2000 and revised in 2008.

In FY 2017, emissions of these substances were reduced by 3.9% from the previous year as a result of implementing such measures as solvent conversion.

[Figure 6] Changes in the emissions of Class 1 chemical substances specified by the PRTR Law

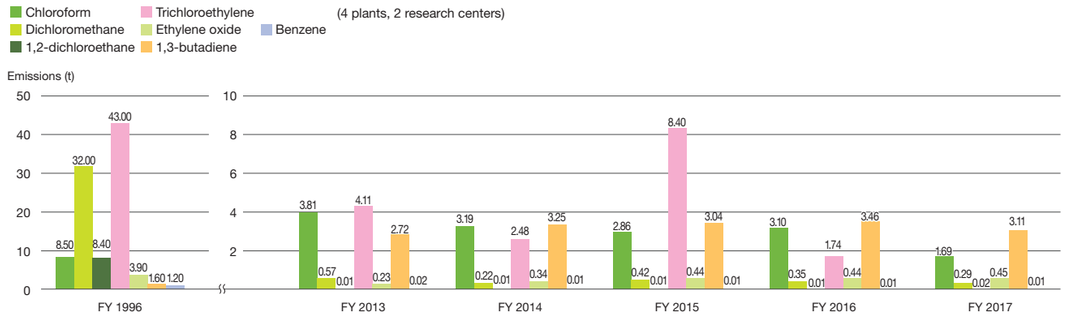


Reduction of emissions of harmful substances to the atmosphere

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) (Nippon Soda has voluntarily added chloromethane for a total of 13). 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.

In FY 2017, Takaoka Plant completed renovation works that aim to address environmental issues. Thanks to the positive effects of the work, the emissions were reduced by 38.8% in FY 2017 from the previous year. We have discontinued the use of trichloroethylene since this fiscal year.

[Figure 7] Changes in the emissions of voluntarily controlled chemical substances to the atmosphere



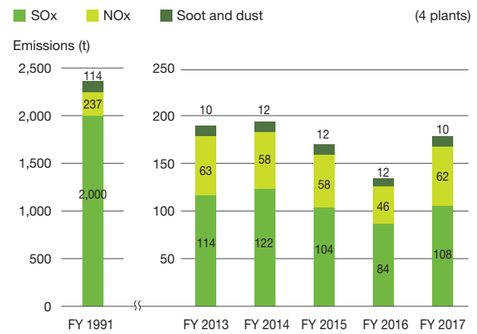
Reduction of air pollutants emissions

Air pollutants are trace elements in the air that adversely affect humans, animals, plants and the living environment.

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 (1968).

In FY 2017, emissions of sulfur oxide and nitrogen oxide increased by 28.6% and 34.8%, respectively, due to increased production, and soot and dust decreased by 16.7%, from the previous year.

[Figure 8] Changes in the emissions of substances controlled by the Air Pollution Control Act



Actions to conform to the Fluorocarbons Emission Control Act

In response to the Fluorocarbons Emission Control Act enacted in April 2015, simplified inspections have been conducted by the Inspection Manager at one worksite at a time.

The calculated emissions of Nippon Soda in FY 2017 reached about 1,555 t-CO_2. (The Fluorocarbons Emission Control Act requires a company whose annual calculated emissions exceed 1,000 t-CO_2 to report this to the national government.) We will continue our efforts to prevent fluorocarbon emissions.

Reduction of emissions of harmful substances to water

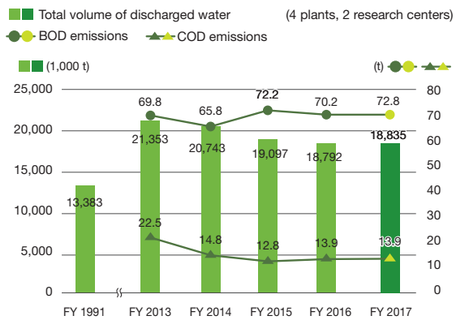
Nippon Soda has made its voluntary standards stricter than national regulatory values and standard values agreed with local municipalities. Based on these strict values, we manage water quality through company-wide efforts (monitoring of pollutants, purification at the wastewater treatment plant) to reduce emissions of BOD and COD.

In FY 2017, while BOD emissions increased by 3.7%, COD emissions remained the same as the previous year.

We will continue our efforts to control and maintain water quality.

[What is BOD?]
BOD, or biological oxygen demand, is the amount of oxygen consumed by organic substances in water when they are decomposed by microorganisms. It can be used as an indicator of the level of contamination of rivers by organic substances. COD, or chemical oxygen demand, is the amount of oxygen required to oxidize organic substances in water and can be used as an indicator of water quality.

[Figure 9] Changes in the total volume of discharged water and emissions of BOD and COD



Preservation of biodiversity

Nippon Soda has taken measures to address global warming, to reduce environmental impacts such as through the effective use of resources and management of chemical substances, to use water resources effectively, and to prevent the pollution of air, water, soil and others, mainly in areas where our production sites are located. Since FY 2017, with particular emphasis on preserving biodiversity, each worksite has been discussing and implementing viable projects.

Chiba Plant applied for a project that was established by the Chiba Biodiversity Center for the conservation of an endangered population of endemic Pinus parviflora in the Boso Hill Range. The Plant continues to cherish nature as a conservation supporter.

Worksites will consistently implement efforts within their respective capacities.

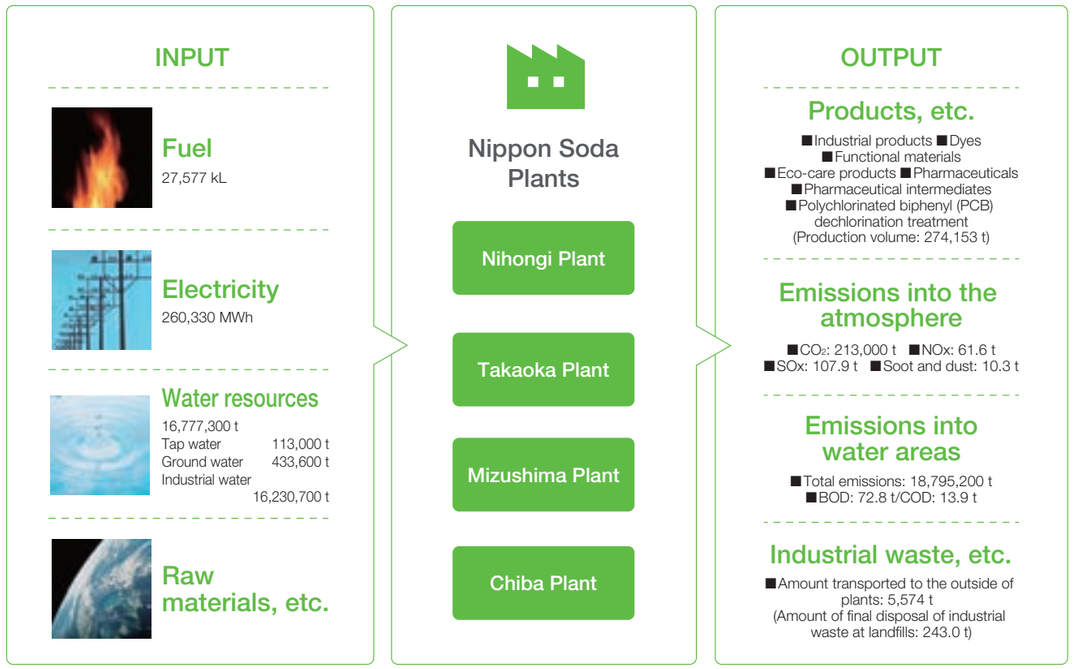
Description of Himekomatsu, a critically endangered species

Efforts for the future

We will make continuous efforts to minimize the impact of our business activities on the environment. Our efforts to protect the environment will include energy saving, resource saving, reduction of greenhouse gas emissions, reduction of waste, recycling, reduction of emissions of harmful substances, preservation of biodiversity, and reduction of impacts on ecosystems.

Environmental performance indicators (EPIs)

The environment impacts of Nippon Soda's four major plants in Japan in FY 2017 are shown in the figure below:
(Figure: Major environmental impact data)



Environmental accounting

Environmental-protection-related investments, costs and effects of Nippon Soda in fiscal 2017 are quantitatively identified and evaluated.

Scope of environmental accounting: Data shown pertain to Nippon Soda only and do not include those of group companies.
Period covered: April 1, 2016 to March 31, 2017
Reference guideline: Ministry of the Environment's Environmental Accounting Guidelines (2005)

Environmental protection costs (classification according to business activities)

Environmental protection costs (classification according to business activities)

Classification		Major measures taken	Invested amount[1]			Costs[1]		
			FY 2015	FY 2016	FY 2017	FY 2015	FY 2016	FY 2017
(1) Business area costs			130	179	446	2,905	2,536	2,259
Details	1-1 Pollution prevention costs	Water pollution prevention, air pollution prevention	117	160	354	2,138	1,975	1,759
Details	1-2 Global environmental protection costs	Global warming prevention	2	19	89	101	88	108
Details	1-3 Resource recycling costs	Effective use, reduction of waste	11	0	3	666	473	392
(2) Upstream and downstream costs		Use of low-sulfur fuel oil C, precious metal catalyst recovery	0	0	0	65	71	62
(3) Environmental activity costs		Environmental measures, environmental analysis, waste treatment	0	0	0	517	548	537
(4) R&D costs		Research to reduce environmental impact	0	0	0	264	256	242
(5) Social activity costs		Environment-related contributions to external parties	0	0	0	1	1	5
(6) Environmental damage costs		PCB treatment costs (906 million yen included) Levies on air pollution, asbestos removal costs	0	0	0	121	266	1,010
Total			130	179	446	3,873	3,678	4,115

1. The amounts are recorded amounts. Unit: million yen

Economic effects produced by environmental protection

Economic effects produced by environmental protection (actual effects)

Details of effects		Amount		
		FY 2015	FY 2016	FY 2017
Revenue	1) Revenues through recycling	0	0	0
Cost saving	2) Cost saving through energy saving	146	163	161
Cost saving	3) Cost saving through resource saving	7	7	9
Cost saving	4) Saving of waste disposal costs	0	0	0
Total		153	170	170

Unit: million yen

VOICE

Efforts in reducing environmental impact and biodiversity conservation

Takahiro Sagae
Department of Administration
Chiba Research Center

Chiba Research Center takes measures to minimize the impact of research activities on the environment, with a focus on energy saving, resource saving, waste reduction, recycling, and reduction of emissions of harmful substances.

We successfully achieved the energy-saving targets (energy consumption, carbon dioxide emissions) of at least 30% reduction from the previous year. Waste emissions were also cut by about 30% from the previous year.

In our efforts to conserve biodiversity, we organize a volunteer cleanup project jointly with Chiba Plant to clean shoulders and median strips of national roads, thereby contributing to local environmental conservation.

We will continue our efforts to improve staff members' awareness of environmental issues and implement more measures to reduce environmental impacts.

Process Safety & Disaster Prevention/BCP

The Nippon Soda Group places emphasis on ensuring process safety and preventing disasters in order to prevent major accidents at its facilities and continue safe and stable production. We are also constantly improving our business continuity plan (BCP) to make sure we can keep providing products and services.

Basic Concept

The Nippon Soda Group performs periodic inspections, ongoing repairs and renovations, and training for operators in order to prevent accidents at its facilities and ensure safe and stable operations at each manufacturing site. The Group also regularly conducts emergency drills and provides education to prepare employees for possible accidents and disasters. Through these efforts, we continuously improve our risk management system. When facilities are newly constructed or renovated, our internal experts conduct safety reviews and audits to verify safety. We also undergo regular diagnoses of our disaster prevention capability conducted by external specialists. Our business continuity plan (BCP), which was developed to help us be prepared for natural disasters such as earthquakes and other emergencies that could result in extensive damage, is regularly reviewed and improved.

Policy for FY 2018

We will prevent major accidents at our facilities and promote safe and stable production activities. We will develop our business continuity plan (BCP) and constantly improve it.

Process safety and disaster prevention

Activities in process safety & disaster prevention in FY 2017

To achieve the target of “no major accidents at facilities,” we implemented measures to ensure process safety and disaster prevention. While no major accidents occurred at Nippon Soda’s facilities, one fire accident occurred at industrial waste facilities of a Group company. There were no human casualties and no reports of negative impacts on local communities. This major accident was assessed through a CSR special audit to identify the cause of the fire and assess the appropriateness of the measures taken. The audit result was shared by the entire Nippon Soda Group to improve the management of process safety and disaster prevention.

Risk management

Risk assessment of process safety and disaster prevention

We conduct risk assessments of facilities, machines and manufacturing processes. Identified risks are prioritized and, accordingly, measures to ensure the safety of facilities are implemented and inspections are conducted.

We use the matrix for self-assessing the security levels of worksites, a tool to visualize the security levels of worksites published by the Ministry of Economy, Trade and Industry in April 2016. In May 2016, self-assessment was conducted at Nippon Soda’s manufacturing worksites. Assessment results will be incorporated into improvement activities at each worksite and also reflected in the list of priority items for company-wide safety patrols. These efforts have been applied to Group manufacturing companies since October 2016 to strengthen their improvement activities.

Establishment of an emergency risk management system

The highest priority is given to preventing accidents and disasters. To prepare for unavoidable accidents and disasters, we have established an emergency risk management system designed to minimize damage and conduct periodic drills and exercises to maintain the system in a 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. The Standards on Emergency Response are periodically reviewed and revised. Their effectiveness is confirmed in training drills.

Safety management

Safety audit to confirm the safety of plants

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

In safety reviews and audits, we conduct the following three types of audits/reviews by taking into consideration the scale of construction and the details of processes: safety audit of the Head Office, safety reviews of plants, and safety reviews of departments.

Facilities of Group manufacturing companies undergo periodic CSR audits to assess the management conditions of manufacturing facilities. Assessment results have been incorporated into activities to improve process safety and disaster prevention.

Case Study

Safety audits prior to trial operation by the Head Office

Safety audit prior to trial operation in the process of constructing formulation facilities for the preparation of “pesticide active ingredient”

Takaoka Plant **September 5 (Monday), 2016**

This is a project to construct facilities for agrochemical substances for a new fungicide to be launched in 2017. As a result of document and on-site audits, 26 safety issues were identified. After addressing all these issues, we successfully completed the trial operation using a simulated agent. A trial operation using the actual substance will be conducted in FY 2018.

Safety audit prior to trial operation in the process of renovating a storage tank for hazardous materials

Chiba Plant **November 28 (Monday), 2016**

This was a renovation of the storage tank for hazardous materials. As a result of document and on-site audits, 10 safety issues were identified. After addressing all these issues, we successfully completed the trial operation.

Safety audit prior to trial operation in the process of constructing manufacturing facilities for the preparation of “pesticide active ingredient”

Takaoka Plant **December 21 (Wednesday), 2016**

This is a project to construct facilities for agrochemical substances for a new fungicide to be launched in 2017. As a result of document and on-site audits, 44 safety issues were identified. As per the schedule, all of these safety issues are expected to be addressed and trial operation completed by June 2017.

Diagnosis of disaster prevention capabilities by a third party

The disaster prevention capabilities of manufacturing group companies are diagnosed by SOMPO Risk Management & Health Care Inc. The FY 2017 report on the diagnosis is presented on page 90.

Education and drills for process safety and disaster prevention

Nippon Soda provides employees with various kinds of educational and training programs on process safety and disaster prevention for different work assignments to help them acquire knowledge and skills to ensure process safety. To achieve the target of “no major accidents at facilities,” we will continue to promote efforts to improve activities that are aimed at ensuring process safety and disaster prevention, such as risk management, safety management and education/training.

Group training

Each worksite and each department periodically provide their staff members with education and training based on the Action Plan to maintain CSR. Educational and training programs are designed to help trainees acquire basic knowledge on process safety and disaster prevention related to equipment, chemical substances and other facilities that employees deal with directly. Programs also include information on relevant dangers and emergency measures. The Nisso Takaoka Academy provides company-wide educational programs for newly employed personnel assigned to manufacturing jobs. These programs, including hands-on training, are designed to help them learn about safety and basic on-site work.

Disaster prevention system involving local communities

Each site of Nippon Soda implements regular disaster drills so as to be prepared for possible emergencies, such as fires and explosions, and earthquakes. Some of these disaster drills are conducted in cooperation with other nearby plants and local governments. These drills are conducted by taking into account the environment and other characteristics unique to each region so that they can be applied in real settings.

Hands-on training to learn about the dangers of mixing of poisonous substances and deleterious substances (Takaoka Plant, December 14, 2016)

Emergency drills conducted (FY 2017)

Site	First half (dates of drills conducted)	Second half (dates of drills conducted)
Nihongi Plant	Spring plant emergency drill (June 17)	Joetsu City Nakago-ku emergency drill (November 15)
Takaoka Plant	Spring comprehensive plant emergency drill (June 7)	Fall comprehensive plant emergency drill (November 16)
Mizushima Plant	Power outage drill (April 1) Toxic substance leak drill (May 31 and July 26)	Comprehensive emergency drill (November 17) Emergency drill for accidents during product transportation (January 13) Toxic substance leak drill (February 10)
Chiba Plant	Comprehensive plant emergency drill (May 24) (Joint drill with public firefighters, a joint disaster response unit, and Chiba Plant Disaster Prevention Team) Maritime disaster prevention drill (MDSS) (May 31) Disaster prevention drill to be prepared for disasters at night and on weekends and holidays (September 27) (Chiba Plant Disaster Prevention Team alone) Emergency communication drills (June 27, August 3 and December 28)	Joint drill with public firefighters and a joint disaster response unit/water flow drill (October 12, 13 and 14) Drill to address environmental abnormalities (November 29) Disaster prevention drill to be prepared for disasters at night and on weekends and holidays (December 15) (Joint drill with public firefighters, a joint disaster response unit, and the Chiba Plant Disaster Prevention Team; Open drill by the Ichihara City Disaster Prevention Association) Comprehensive emergency drill during daytime (February 22) (Joint drill with public firefighters, a joint disaster response unit, and the Chiba Plant Disaster Prevention Team) Evacuation drill (for tsunami) (March 17)
Odawara Research Center (Odawara)	Comprehensive emergency drill (May 24)	Department emergency drill (Five departments in total, each separately conducted, October to December)
Odawara Research Center (Haibara)	Emergency evacuation drill (July 26)	Emergency earthquake warning issuance drill (November 4) Comprehensive emergency drill (December 12)
Odawara Research Center (Bandai)	–	Emergency drill (December 9)
Chiba Research Center	Participated in the Chiba Plant's comprehensive emergency drill (May 24)	Chiba Research Center emergency drill (Water spray drill, November 17) Participated in the Chiba Plant's comprehensive emergency drill (December 15)
Head Office	Drill for establishing and operating the Head Office Disaster Response Headquarters (June 17) (during an emergency drill at Nihongi Plant)	Evacuation drill (December 8) (Shin Ohtemachi Building joint drill)

Disaster prevention drill to be prepared for disasters at night and on weekends and holidays (Chiba Plant, December 15, 2016)

Business Continuity Plan (BCP)

Basic concept of the BCP

In the event of a large-scale earthquake or other natural disaster, or a crisis with the potential to result in serious damage, the social responsibility of Nippon Soda is to protect local residents, permanent and temporary employees, and affiliate company employees from possible harm posed by toxins, deleterious substances, hazardous materials, high-pressure gas and/or large stores of energy under the control of our company's office situated in the affected area. Since the company produces chemicals, agricultural chemicals, medicines, and other products that are indispensable for daily life and as ingredients of industrial products, if the supply of these products is disrupted due to a disaster or crisis, tremendous inconvenience would be imposed not only on the company's customers but also on general consumers. In this context, Nippon Soda's BCP, or business continuity plan, must above all ensure the safety of its own employees, affiliate company employees and temporary employees and their families and local residents and also promptly safeguard the Head Office, plants, research centers, branch offices and sales offices. The BCP must also be designed to help its own employees, affiliate company employees and temporary employees be fully aware of their individual responsibilities and allow them to take on their assigned role at their discretion in order to execute emergency operations. It is also necessary for the company to establish a system that enables each site to act flexibly according to the circumstances. With all of the above taken into account, the principles of the BCP are defined as follows:

Principles of the BCP

1. The highest priority is placed on checking on the status and ensuring the safety of Nippon Soda's own employees, affiliate 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, affiliate company employees and temporary employees who are engaged in ensuring safety and security to act flexibly and at their discretion according to the circumstances.

Continuation using the PDCA cycle

The RC activity is built into the PDCA cycle by incorporating the BCP in the voluntary activity code, helping the BCP "spiral up."

Continuation of supply of products according to customer needs

The BCP aims to ensure the supply of products to customers as requested at any time. To achieve this objective, improvement is accelerated using the PDCA cycle.

Maintenance of the BCP in FY 2017

The goal for FY 2017 was to maintain and improve the BCP using the PDCA cycle. On April 1, 2016, the BCP was revised and the 6th version was published and distributed. In the 7th version published on April 1, 2017, a revision was made in response to changes in hazards at each worksite. We will continue our efforts to maintain and improve the BCP using the PDCA cycle.

Efforts for business continuity

The figure below shows a flowchart of the procedures for continuing business operations.

1. **Policy**
2. **Planning**
   - ●2.1 Identification of Disasters and Crises to be Included in the Plan
   - ●2.2 Impact Assessment
     - 2.2.1 Estimation of Suspension Period and Response Capacity
     - 2.2.2 Identification of Critical Business Operations
     - 2.2.3 Determination of Time Required to Achieve Target Recovery
   - ●2.3 Estimation of Damage to Critical Business Operations
   - ●2.4 Identification of Critical Elements
   - ●2.5 Development of Business Continuity Plan
     - 2.5.1 Clarification of Chain of Command
     - 2.5.2 Securement of Functions of the Head Office and Other Key Sites
     - 2.5.3 External Communication and Information Sharing
     - 2.5.4 Information System Backup
     - 2.5.5 Supply of Products and Services
   - ●2.6 Additional Requirements Concurrent with Business Continuity
     - 2.6.1 Protection of Life and Confirmation of Safety of Individuals
     - 2.6.2 Mitigation of Damage to Offices, Business Sites and Equipment
     - 2.6.3 Secondary Disaster Prevention
     - 2.6.4 Coordination with and Contribution to Local Communities
     - 2.6.5 Mutual Cooperation and Assistance
3. **Implementation**
   - ●3.1 Implementation
   - ●3.2 Documentation
     - 3.2.1 Preparation of Plans and Manuals
     - 3.2.2 Preparation of Checklist
   - ●3.3 Financing
   - ●3.4 Confirmation of the Practicality of Plans
   - ●3.5 Importance of Management Decision-Making during Disasters
4. **Provision of Education and Training**
5. **Assessment and Corrective Actions**
6. **Review by the Management**

Disasters and risks covered by the BCP

1. Earthquake
2. Typhoon
3. Heavy rainfall, flood, tsunami, heavy snowfall
4. Storm, tornado
5. Volcanic eruption
6. Abnormal conditions of facilities
7. Influenza, infectious diseases, etc.
8. A large number of affected employees (their houses and families)
9. Electric power outage
10. Suspension of industrial water supply
11. External communication failure
12. Computer system failure
13. Emergency at water discharge destinations
14. Suspension of the supply of raw materials (including logistics)
15. Suspension of product distribution
16. Occurrence of quality problems
17. Terrorism
18. Nuclear power accident
19. Missile attack
20. Others

Efforts for the future

We will continue our efforts to achieve the target of "no major accidents at facilities" through implementing safety management, risk management, education, disaster prevention drills and other measures. We will also improve and review the BCP in a systematic manner.

VOICE

To ensure safety and security at the plant and local communities

Takahiro Iiyoshi
RC Promotion Department
Nihongi Plant

Nihongi Plant is situated in a rich natural area with plenty of water resources and among the heaviest snowfall in the world. In its downstream area, there extends agricultural land where koshihikari, one of the best rice varieties in Japan, is cultivated. The plant deals with many kinds of chemicals and we recognize that a disaster at the plant could significantly affect local residents and the natural environment. We therefore implement preventive maintenance and improve the management of facilities through CSR activities to ensure safe and secure operation. We also conduct disaster prevention and emergency call drills in cooperation with local communities to be prepared for a possible earthquake. Through these drills, we enhance preparedness for an emergency and our risk management system. We also maintain sufficient stockpiles, such as food, to ensure the safety and security of the plant and local communities.

Occupational Safety and Health

The Nippon Soda Group promotes efforts to create an accident-free working environment in order to provide a healthy and happy working experience. We are implementing various measures to achieve and maintain the goal of no workplace accidents and promote employee health.

Basic Concept

The Nippon Soda Group has introduced an occupational safety and health management system (OSHMS) at all of its plants and one research center. In accordance with the OSHMS, we conduct risk assessments and constantly develop, implement, review and improve measures (PDCA) to ensure safe and healthy workplaces with the aim of achieving the goal of zero occupational accidents. To help employees maintain and improve their health, we provide them with health guidance based on medical examination results and take measures to reduce incidents of personal injury or illness. As mental health care services, stress tests are conducted and consultations with qualified mental health specialists are available so that appropriate care can be provided.

Policy for FY 2018

We will create an accident-free working environment in order to provide a healthy and happy working experience.

Occupational safety and health

Implementation of risk assessment

Nippon Soda adopts an occupational safety and health management system (OSHMS) at all of its plants and one research center.

The OSHMS is a tool to identify safety policies for worksites and develop, implement, review and maintain the identified policies. Covering also organizational structures and procedures, it helps achieve goals and improve performance systematically by promoting the PDCA cycle.

To integrate OSHMS and RC activities effectively, Nippon Soda places an emphasis on OSHMS risk assessment. The basic objective of RC activities is to identify and assess risks based on RC Codes and to reduce them to permissible levels. The plants and research center identify and assess occupational accident risks and, if they are not permissible, reduce them to permissible levels.

Efforts to prevent occupational accidents

Nippon Soda uses two approaches in its efforts to prevent occupational accidents: one is to reduce occupational accident risks themselves and the other is to prevent human errors.

Reduction in the risk of the occurrence of occupational accidents

Activities to reduce occupational accident risks

Our focus is mainly on reducing occupational accident risks based on OSHMS risk assessments but also includes efforts to reduce risks by identifying “hiyari-hat” (near miss) accidents and by sharing information on accidents that have occurred at other business sites and companies. When new plants are constructed and existing ones extended, a safety review and audit are required. Before starting operation, we reduce accident risks to permissible levels.

Efforts to prevent human error by workers

1. 5S: The “5Ss” collectively refers to five Japanese words: *seiri* (organizing), *seiton* (tidying), *seiso* (cleaning), *seiketsu* (cleanliness) and *shitsuke* (discipline).
2. 4 Safety Cycles
   - KY[1] before starting operation
   - Pointing and vocalizing during operation
   - Mutually directing attention during operation
   - Identifying “hiyari-hat” (near miss) accidents after operation
3. Safety-awareness-raising efforts at business sites

The 5Ss and the 4 Safety Cycles are the two fundamental concepts that form the basis of safety activities for the entire Nippon Soda Group. The 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.

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

Occupational Health and Safety Survey

SOMPO Risk Management & Health Care Inc.

As part of the stakeholder engagement effort, we requested SOMPO Risk Management & Health Care Inc. to conduct an occupational health and safety survey. Their suggestions based on the survey results will be incorporated into our safety activities in the future.

● Survey

- Date: December 9 (Friday), 2016
- Site: Manufacturing Unit, Manufacturing Division, Mizushima Plant
- Summary of the survey:
  Observation of a pre-work meeting, interviews with staff in charge, confirmation of relevant document, on-site survey

Pre-work meeting (December 9, 2016)

● Reporting meeting

On January 20, 2017, a meeting to report survey results was held. Participants shared their opinions about suggestions made by the survey company. Proposals for improvement based on results from the on-site inspection, “good points” and other comments were also provided.

● Survey supervisor’s comment

The management of safety and health issues at the Manufacturing Division was assessed and it was rated as generally favorable thanks to efforts by the division manager, the unit manager and other supervisors, and by the Management Division. Mizushima Plant manufactures sodium cyanide using hydrogen cyanide as the cyanide source. All personnel are constantly aware of this in their daily work activities. However, occupational accidents, although not serious, have been reported in recent years. For this reason, we offered some proposals in the survey in order to contribute to the further improvement of safety and health management.

● Major proposals for improvement

We received proposals for improvement of the items as follows:

1. Pre-work meeting
2. Promotion of safety and health promotion activities (hiyari-hat)
3. Promotion of safety and health promotion activities (predicting risks)
4. Promotion of safety and health promotion activities (pointing and vocalizing)
5. Discussion on cases involving other companies
6. Safety and health education
7. Improvement of skills of young workers

On-site survey (December 9, 2016)

Reporting meeting (January 20, 2017)

Note: “Opinion on the Occupational Health and Safety Survey” is on page 91.

The number of consecutive days without an accident resulting in absence from work (as of April 1, 2017)

Worksite	The number of consecutive days without an accident resulting in absence from work (years)	The number of occupational accidents causing an absence from work for FY 2017
Head Office	5,056 days (13 years)	0
Nihongi Plant	50 days (0 years)	1
Takaoka Plant	431 days (1 year)	0
Mizushima Plant	8,912 days (24 years)	0
Chiba Plant	4,617 days (12 years)	0
Odawara Research Center	6,006 days (16 years)	0
Chiba Research Center	9,169 days (25 years)	0
Aizu Plant, Nisso Metallochemical Co., Ltd.	183 days (0 years)	1
Chiba Plant, Nisso Metallochemical Co., Ltd.	11,017 days (30 years)	0
Koriyama Plant, Nisso Fine Co., Ltd.	1,766 days (4 years)	0
Isohara Plant, Nisso Fine Co., Ltd.	317 days (0 years)	1
Onahama Plant, Nisso Fine Co., Ltd.	417 days (1 year)	0
Shinfuji Kaseiyaku Co., Ltd.	3,409 days (9 years)	0
Nisso Shoji Co., Ltd.	5,054 days (13 years)	0
Sanwa Soko Co., Ltd.	219 days (0 years)	1
Nisso Engineering Co., Ltd.	4,184 days (11 years)	0
Nisso Construction Co., Ltd.	8,286 days (22 years)	0
Nisso Green Co., Ltd.	6,210 days (17 years)	0

Incidence of occupational accidents

Number of occupational accidents causing an absence from work

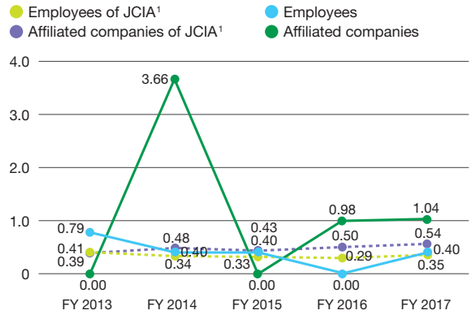
In FY 2017, eight occupational accidents causing an absence from work were reported by Nippon Soda and eight Group companies as well as their affiliated companies.

Number of occupational accidents causing an absence from work at Nippon Soda and its affiliate companies

(Numbers reported in one fiscal year starting on April 1 and ending on March 31 of the next year)

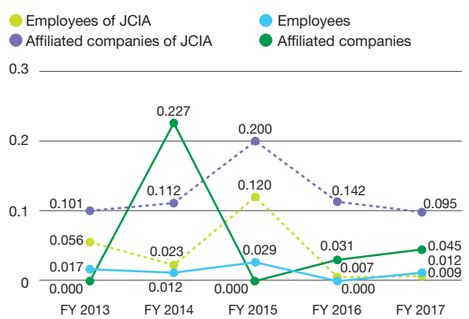
FY	2013	2014	2015	2016	2017
Nippon Soda	2	1	0	1	1
Nippon Soda's affiliated companies	1	3	1	0	2
Group companies	2	0	0	5	3
Group companies' affiliated companies	3	2	1	3	2

Change in occupational accident frequency rates



Occupational accident frequency rate: Casualties/Total working hours (per million hours)
1. JCIA stands for Japan Chemical Industry Association.
The data were collected from January 1 to December 31 of each year.

Change in the severity rate of occupational accidents



Severity rate of occupational accidents: Man-days lost/Total working hours (per 1,000 hours)
The data were collected from January 1 to December 31 of each year.

Proactive health management for workers

Health promotion

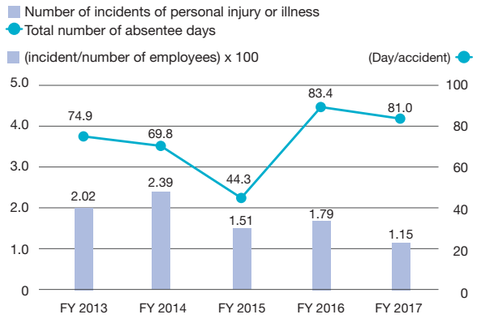
Recognizing that achieving our production activity goals, preventing occupational accidents and performing CSR and RC activities are all dependent on the wellbeing of our workers, Nippon Soda makes efforts to promote employee health.

As one such effort based on specific numerical targets, all business sites work to reduce the number of incidents of personal injury or illness and the total number of absentee days related to injury or illness.

Each business site develops and implements its own health promotion activities, including a "Kenkoryoku Up Dai-sakusen" (Health Promotion Campaign). Some other examples are warm-up exercises in the morning and after lunch and walking and other exercises during lunch break. There are also other programs to help employees manage their health, such as health lectures by an external organization and the measurement of arteriosclerosis indicators.

Healthcare staff, consisting of occupational physicians and nurses, provide health guidance based on periodic medical examination results and other data.

Change in the number of incidents of personal injury or illness (per 100 persons) and the total number of absentee days (per incident)



Note: The data above were collected from April 1 to March 31 of the next year.

Health promotion activity at Takaoka Plant (October 20, 2016)

Mental health care

Our mental healthcare program consists of the following four components:

1. Self-care
2. Care by administrators in the workplace
3. Care by occupational healthcare staff and other specialists at each workplace
4. Care by external parties

To help employees with their self-care 1 and provide care by occupational healthcare staff and other specialists at each workplace 3, a stress test is conducted once a year. To improve care by administrators in the workplace 2, lectures on mental health by external specialists are organized. Consultations with qualified mental health specialists by phone or face-to-face are also available as part of efforts to provide care by external parties 4.

In addition, lectures on mental health are provided by an external organization to help employees manage their own mental health.

Efforts for the future

With the aim of achieving the goal of zero occupational accidents, we will continue our efforts to reduce risks through continuous risk assessment, strengthen measures to prevent human error, and enhance safety activities. To help employees maintain and improve their health, we provide them with medical examinations, conduct follow-ups of employees undergoing stress tests, and continue health promotion activities.

VOICE

Efforts to achieve no accidents and no disasters and eradicate human error

Hiroshi Kodama
FC Section
Fine Chemical Department
Takaoka Plant

Takaoka Plant is located adjacent to a residential area and we are particularly careful about ensuring the safety of residents in local communities by implementing safety measures to enhance security and prevent disasters. Plant-wide efforts are focused on maintaining a work environment where all employees can enjoy working without experiencing any work-related accidents. To achieve no accidents and no disasters, all employees are making concerted efforts to prevent accidents caused by human error. We implement strict measures to ensure environmental preservation, occupational safety and health, and product safety in a systematic manner. We make continuous efforts to improve and review the measures to eradicate human error.

Distribution Safety and Quality Assurance

The Nippon Soda Group promotes efforts to reduce risks associated with the distribution of products to prevent distribution accidents.
We also provide an environment where customers can use high-quality products safely, comfortably and in a stable manner in order to increase customer satisfaction.

Basic Concept

The Nippon Soda Group's efforts to reduce risks of hazards, toxic harm and in-transit accidents associated with the transportation of products are made to protect the safety and environment not only of customers but also of workers engaged in distribution processes and of people living in areas near distribution routes.

We also provide information that helps customers use high-quality products safely, comfortably and in a stable manner. While ensuring safety and hygiene for customers, we provide products that increase customer satisfaction.

Policy for FY 2018

We will reduce risks of hazards, toxic harm and in-transit accidents associated with the transportation of products to prevent distribution accidents.

We will promote efforts to increase customer satisfaction.

Distribution safety

Measures to ensure safe transportation of hazardous materials

Transportation risk assessment

Nippon Soda identifies risks from various viewpoints to prevent workers from being injured and products from being damaged in an accident during the loading, unloading and transshipment of products with a forklift, as well as in a traffic accident during transportation by truck to deliver products to customers. Based on identified risks, we take measures to reduce such accidents.

Efforts to achieve zero distribution-related complaints

In FY 2017, Nippon Soda set the goal of reducing distribution-related complaints by 30% from that of FY 2015, which was successfully achieved. Human error can be a direct cause of distribution-related complaints. In FY 2018, we will not only aim to reduce distribution-related complaints by 60% from the FY 2015 level but also implement measures to prevent human error entirely by using transportation risk assessment.

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

Nippon Soda promotes the use of Container Yellow Cards mainly for hazardous products. With risk avoidance always in mind, as with Yellow Cards, we use wording that complies with the GHS requirements, include appropriate pictograms and reflect the latest information about revisions to relevant laws so that we can be prepared to respond quickly to prevent damage from spreading in the event of a disaster.

Example of a combined label
The guide number and the United Nations number are printed at the bottom of the Container Yellow Card.

Distribution safety in value chains

Request for improvement of customers' facilities

When delivering products to a customer, if there are any safety problems with regard to workers at facilities where our products are received or any risks such as potential for the mixing of foreign substances or spills, Nippon Soda submits a specific request for improvement to the customer. Our particular emphasis is on preventing the malfunctioning of level gauges. We develop preventive measures based on examples from other companies.

Quality assurance

Efforts to ensure quality management

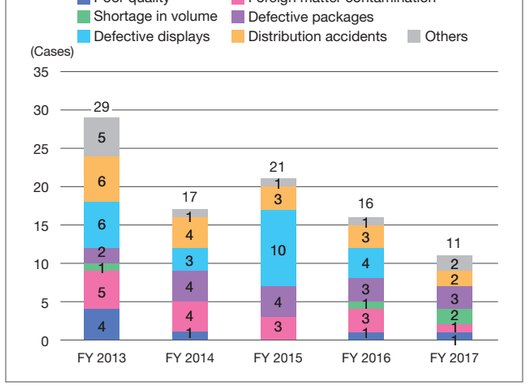
Quality risk assessment

Nippon Soda proactively uses a quality risk assessment so as to prevent quality complaints from occurring and recurring. We rank risks identified at each plant from Rank A to Rank D and make continuous efforts to reduce those ranked A and B. In FY 2017, we reduced 865 risks. In FY 2018, we will continue efforts to reduce risks.

Efforts to achieve zero quality complaints

In FY 2017, Nippon Soda set the goal of reducing quality complaints by 30% from that of FY 2015. Thanks to our efforts, we successfully reduced them by 50%, exceeding the target. We, however, have failed to make a significant reduction in quality complaints associated with human error. In FY 2018, we will aim to reduce complaints by 60% from the FY 2015 level and will implement measures particularly targeted at reducing complaints arising due to human error.

[Figure 1] Change in the number of product-related complaints



Compliance with laws and regulations

Survey on the content of legally controlled substances

Nippon Soda tracks ingredients contained in a product to determine the presence or absence of legally controlled substances and provide customers with tracking results so that they can use the product without worry. We also respond to requests from customers to conduct a survey using the MSDSplus[3] on a specific substance selected by a customer and share the survey result. In FY 2017, we responded to 839 such requests. The number of legally controlled substances has been increasing every year. We will continue to provide customers with updated information also in FY 2018.

Efforts for the future

We will set reduction targets for distribution-related complaints and quality complaints. To achieve these targets, we will assess risks and take actions, such as the implementation of measures to prevent human error and to ensure distribution safety and quality assurance. Our efforts to address consumer issues will also be promoted.

VOICE

To achieve customer satisfaction

Shinji Katayama
RC Promotion G
RC/Engineering Department
Mizushima Plant

Mizushima Plant is engaged in CSR improvement activities based on the Integrated Management Manual, which complies with the ISO 9001 standard (2015). To ensure distribution safety, we provide education on distribution safety to forwarding agents and conduct emergency drills jointly with transportation firms to be prepared for accidents during product transportation.

To ensure quality, we conduct quality risk assessment to reduce risks and provide education on quality management. We also conduct regular patrols for quality management and convene regular meetings of the Quality Management Committee. Quality-related information is shared throughout the plant to allow all personnel to be involved in quality management. Efforts are also made to improve quality assurance and to prevent non-conformities and complaints. In FY 2017, we received no reports of non-conformities or complaints.

We will continue our efforts to respond to customer requests as quickly as possible and provide them with appropriate information in order to increase customer satisfaction.

1, 2, 3. For more information, please see the glossary on page 92.

Chemicals and Product Safety

Giving due consideration to possible safety, health and the environmental hazards that may be caused by chemicals and products, the Nippon Soda Group complies with domestic laws and regulations, international standards, treaties and the like as well as with social norms and expectations so that we can earn greater trust from customers and the general public.

Basic Concept

The Nippon Soda Group complies with domestic laws and regulations, international standards, treaties and the like as well as with social norms and expectations so that we can increase the trust of customers and the general public.

The Nippon Soda Group implements specific measures to ensure the safe management of chemicals, including periodic educational programs. Thanks to the Group's safety activities, there were no reports of violations of chemical-related laws or regulations in FY 2017.

Policy for FY 2018

We take into account the impact of dangerous and toxic chemical substances and products on the environment and people's health and comply with relevant domestic laws and regulations and international standards and treaties as well as other regulations that are publicly demanded, so that we can gain more trust from customers and the public.

Safety of chemicals

Strengthening the management of chemical substances using ExESS

We are strengthening the management of chemical substances using a new chemical substance control system. ExESS, the system for the preparation and management of SDSs[1] and Yellow Cards adopted in FY 2015, has useful functions, including the automatic identification of the GHS classification category and applicable laws and regulations. The system has been used for preparing SDSs, Yellow Cards and labels.

Revision of SDSs

On June 1, 2016, the revised Industrial Safety and Health Act became effective. As a result of the revision, the number of substances for which labeling display is required was increased from 104 to 640, which is the number of substances for which a SDS is required. On March 1, 2017, 27 more substances were added to substances for which labeling display and SDSs are required. In response to these changes, we revised, using ExESS, more than 400 SDSs as of June 1 and a dozen SDSs as of March 1.

ExESS has a function for preparing overseas SDSs. Although we planned to improve the EU and Chinese SDS specifications, develop a detailed operation manual for ExESS, and provide education on relevant issues, we have only achieved about 60% of these goals.

Revision to meet GHS requirements

We prepare SDSs and product labels according to the GHS[2] requirements. The GHS is adopted globally. The Nippon Soda Group prepares SDSs and product labels used not only in Japan but also in other countries and regions around the world, such as Europe, the U.S., China, Taiwan, South Korea, Southeast Asia and Turkey, in such a way as to meet the GHS requirements. In FY 2017, we prepared SDSs and labels, using ExESS, for products marketed in Japan that had not been revised to meet the GHS requirements. In addition, we prepared SDSs and labels for chemical mixtures shipped to Turkey and products shipped to Thailand, Indonesia, Vietnam and other Southeast Asian nations and Australia.

Regular training programs on chemical substance control

We provide employees who handle chemical substances with education on how to comply with Japanese and overseas laws and regulations regarding the management of chemicals. In FY 2017, we conducted training for new/transferred employees at the Head Office (April and May) and provided an educational session on chemical substance regulations in Thailand (October). We also conducted educational sessions on revisions to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Act, the Poisonous and Deleterious Substances Control Act and other Japanese laws and regulations and overseas trends in revisions to laws. These sessions were conducted at the Head Office and also in the form of a webinar at four plants and two research centers (February). At each worksite, educational sessions on chemical substance laws and regulations as well as chemical substance management were conducted specifically for young employees.

Educational session for new/transferred employees on chemical substance laws and regulations (May 12, 2016)

Explanatory session on revision of laws and regulations (February 20, 2017 at the Head Office)

Product safety

Actions to comply with laws and regulations

Actions to comply with foreign laws and regulations

To comply with the EU REACH[3] regulation, we selected the final substances to be registered and decided the policy for the period until May 2018. We are also registering substances to prepare a list of existing chemicals in Thailand.

Revision of standards for the management of poisonous and deleterious substances

We improved our system for confirmation of compliance with the requirements prior to importing poisonous and deleterious substances. It was determined that all imports of samples of all chemicals be centrally managed by the Head Office. Under the improved system, staff in charge of import at the Head Office check regulatory compliance using the "Checklist for Pre-Import Confirmation of Regulatory Compliance," including the presence or absence of substances categorized as poisonous or deleterious, the completion or failure of registration of poisonous or deleterious substances by the importer, and the presence or absence of an SDS written in Japanese. To provide information on the new management standards throughout the company, we held an explanatory session at the Head Office in October and at four plants and two research centers in December and January.

Audits of poisonous and deleterious substances at offices

In January 2017, we conducted audits of poisonous and deleterious substances at four offices of our company and three local offices or sales departments of Nisso Shoji Co., Ltd., a group company. For our company's offices, this was the first audit of poisonous and deleterious substances since FY 2011. The audits in FY 2017 were conducted in eastern Japan. In FY 2018, audits will be conducted at offices in western Japan. We will conduct audits on a regular basis.

Communication of safety information on chemicals

The Nippon Soda Group participates in the Global Product Strategy (GPS) and the Japan Initiative of Product Stewardship (JIPS). JIPS is a voluntary initiative of the chemical industry for risk management based on risk assessment and risk management that takes supply chains into account. The basic concept of JIPS is aligned with the Product Stewardship (PS)/GPS initiative of the International Council of Chemical Associations (ICCA). The Nippon Soda Group has prepared safety summary reports on four substances, including caustic soda and hydrochloric acid, which have been registered on the ICCA portal page and made publicly available.

In FY 2017, we participated in a consortium meeting of the JCIA to prepare safety summary reports on sodium hypochlorite and chlorine. We shared information with member companies and prepared highly accurate safety summary reports. We are planning to post our reports one by one on the ICCA portal page to make them publicly available.

Efforts for the future

To ensure continued compliance with chemical-related laws and regulations (zero violations), we will strengthen the management of chemical substances (use of domestic and overseas SDSs, label preparation) using the new chemical substance control system to promote compliance with the GHS requirements. We will continue to provide regular training programs on chemical substance control, including training for new/transferred employees, explanatory sessions on revision of laws and regulations, and explanatory sessions on revisions to relevant laws and regulations of foreign countries.

VOICE

Safe management of ingredients and products based on risk assessment

Kazuyuki Ogawa
RC Administration Section
RC/Engineering Department
Chiba Plant

In June 2016, the revised Industrial Safety and Health Act became effective. As a result of the revision, risk assessment became mandatory, instead of voluntary, and a significantly large number of chemical substances have been included in the category of hazardous and toxic chemicals.

In response to the revision, Chiba Plant, which had already adopted risk assessment, took measures to improve skills for risk assessment and conducted risk assessment including review. Risk assessment results have been incorporated into training and widely reported at worksite meetings and on other occasions.

Products manufactured by Chiba Plant are used by many customers both in Japan and abroad as ingredients of a wide variety of products, such as electronic materials and adhesive agents and labels for packaging materials for food products. We are ready to conduct surveys on regulations in different countries and meet various customer needs.

Regulations on chemicals will become increasingly stringent in the future. In response, we will improve the management of chemicals and also improve relevant educational programs to raise employees' awareness of chemicals.

1, 2, 3. For more information, please see the glossary on page 92.

Together with Our Customers (Consumer Issues)

The Nippon Soda Group strives to develop products with functions that will satisfy our customers, and also makes active efforts toward ensuring safety during the use of our products.

Basic Concept

The Nippon Soda Group strives to offer our customers safe and reliable products and services that satisfy their needs.

We will continue our endeavors to expand our market share by developing products that answer the needs of our customers, and will work together with our customers in continuing to create new value that is sought after by society.

Policy for FY 2018

We will work toward achieving customer satisfaction by sharing a common understanding about customer issues.

Improve customer satisfaction

Services by the customer consultation office (Agro Products Division)

The regional salespersons and the section handling inquiries at our Head Office appropriately answer inquiries made on the usage of our products and agrochemicals.

We have placed persons in charge of answering customer inquiries within our Public Relations Section of our Product Promotion Department. Inquiries are answered under the motto of providing “swift, accurate and easy-to-understand answers.”

Requests and inquiries received from our customers are input into a database, and the information is shared with our plants, research centers and sales departments. This information is utilized toward improving our products and expanding the scope of application of our agrochemicals. Furthermore, with regard to customer complaints and requests for quality improvement, efforts are made to prevent recurrence and to make improvements for each individual product.

Sales promotion activities with our customers in mind (Chemicals Business Division)

Our high-function polymers are used in a variety of products in diverse fields, such as in electrical parts for mobile devices and personal computers. In order for our polymers to function well in each of these different fields, it is essential that we make improvements while thinking about how they will be incorporated into the finished product. We exhibit actively at trade fairs and other venues, and seek opportunities to have discussions with our customers, so that our products will be considered by more buyers.

Promotion activities rooted in the local community (Agro Products Division)

The demands that agrochemicals are required to satisfy differ depending on such factors as climate, crops, diseases, pests and weeds in the area where they will be used. In order to enable the effective use of agrochemicals, we make personal visits to contracted wholesellers, retailers, agricultural co-ops and farmers in Japan to introduce our products and explain the appropriate methods of use. Outside of Japan, we work with our sales partner in each country in hosting seminars for local stores and farmers on our products and their appropriate use. We also conduct such activities as inviting customers to visit agricultural fields where our products are being used, so that they can see the effects of our products for themselves.

Visit with a sales partner to a farm testing a new chemical compound

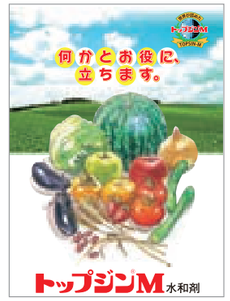
Communication with our customers

Sending out information to our users (Agro Products Division)

We receive many different inquiries from our customers—from kitchen garden growers using agrochemicals for the first time to full-time farmers. In this situation, we abide by the Agricultural Chemicals Control Act and other related laws, rules, and regulations, and strive to provide information on registered agrochemicals and on the expansion in their scope of usage in a timely manner.

- Publication and distribution of our technical informational magazine, *AGCHEM AGE*.
- Information provided via our website, flyers, etc.

Technical informational magazine, *AGCHEM AGE*



Informational tools

Safe usage (Chemicals Business Division)

NISSO HI-CHLON, an inorganic solid chlorine agent, is used to disinfect swimming pools, such as those at schools, because of its ease of use. In order to ensure that HI-CHLON is being used properly, we work with our sales agents and pay visits to the schools to explain proper handling methods. Furthermore, a website that we contribute to called “Gakkoupool.com” provides the information needed for managing school pools. We will continue to engage in direct communication with the people associated with school officials, and strive for the development of even better products.

Gakkoupool.com, a website that provides information needed for managing school pools

Development of products that are useful to society

Responding to the requests of our customers (Chemicals Business Division)

NISSO HPC (hydroxypropyl cellulose) is used widely throughout the world as an additive that is essential for formulating pharmaceuticals. Since its launch in 1969, we have been continuing to respond to the needs of pharmaceutical companies, who are our customers. As a result, we now offer 13 different grades of NISSO HPC with different viscosities and particle sizes. And right now, we are aggressively promoting research and development for enhancing the functionality of pharmaceuticals, both in and outside of Japan, by working with our customers to develop a new grade that is in line with our customers’ needs, and by maintaining NISSO HPC’s status a frontline product in pharmaceutical formulation.

The safety and high functionality of NISSO HPC also makes possible its use in food processing. Thus, we have recently begun providing it in the food market under the brand name CELNY. This product is attracting particular notice from the nutritional supplement industry as it demonstrates particularly high functionality in incorporating large dosages of such substances as turmeric, glucosamine and mulberry leaf, which are notoriously difficult to make into pills, into tablets made from natural ingredients. This ability is helping to reduce the amount of supplement tablets that need to be taken in one day.

HPC

Tablets made with HPC

Together with Our Employees (Human Rights/Labor Practices)

Nippon Soda Group focuses its proactive efforts on creating a work environment where human rights are respected, and all employees can find their work meaningful and maximize their abilities.

Basic Concept

The Nippon Soda Group respects the dignity and human rights of all people and recognizes the importance and universality of such rights. Recognizing the diversity of cultures, customs and values, we take no actions that result in discrimination.

To build a work environment where employees' individuality is fully respected and all employees can feel comfortable and fulfilled, we proactively develop and review personnel and employment systems to ensure the ongoing improvement of working conditions.

With particular emphasis on promoting diversity and strengthening employee satisfaction in our CSR activities, we allow our diverse team of employees to grow and enjoy fulfilling work.

Policy for FY 2018

- Full implementation of the medium-term diversity plan developed in 2016 and steady improvement using a PDCA cycle.
- Analysis of the results from the second employee satisfaction survey and development and implementation of an action plan.

Nippon Soda Group's human resources development

In the year 2020, Nippon Soda will celebrate the 100th anniversary of its founding. The goal of our long-term vision is as follows: Form a globally competitive corporate group that is highly motivated and ready to take on challenges and enhance the comprehensive value of the entire Group so as to make enormous progress. We would have neither a history nor a future without the efforts made by our people. In order for us to continue achieving sustainable growth, we believe it is our mission to create a company that people are eager to work for and where such people achieve growth.

In fiscal 2012, we carried out a large-scale reform of the personnel system under the basic principle of "improving transparency to promote greater understanding." The system was fully reformed, including job categories and grades, salaries, bonuses, promotion, appraisal and benefit packages. We will continue striving to develop frameworks that allow our employees themselves to actively achieve growth.

We believe that professional development is the key to a strong human resources foundation. In addition to on-the-job training, our educational and training programs include rank-based training, manager training, early- and intermediate-phase practical training, and specialized training by job function. We also provide training for self development, including programs to improve language proficiency and acquire qualifications, as well as many other various kinds of training programs.

Promotion of diversity

Development of the diversity policy

We believe it is essential to embrace different ideas that come from different people, regardless of their personal attributes such as gender, age, nationality and presence or absence of disability, in order for us to continue developing in this rapidly changing business environment. In line with this belief, we developed the Diversity Policy in 2016 with the aim of enhancing and accelerating our efforts in diversity.

● Diversity Policy

Nippon Soda considers it necessary for a corporate group to value diversity in order to generate new innovations and increase its global competitiveness. In this context, we recognize the promotion of diversity as an important management strategy.

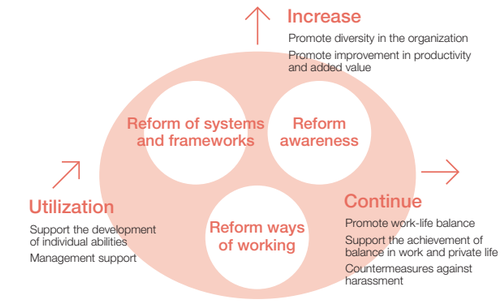
Efforts to promote diversity include transformation of our personnel systems to make full use of our diverse human resources, improvement of the corporate culture and work environment, and implementation of various other basic support systems. Through these efforts, we aim to become a company where global-minded, motivated, competent employees can enjoy working and continuously grow and develop regardless of gender,

Activities in 2016

We reaffirmed the importance of diversity, with the following messages sent out by top-level management.

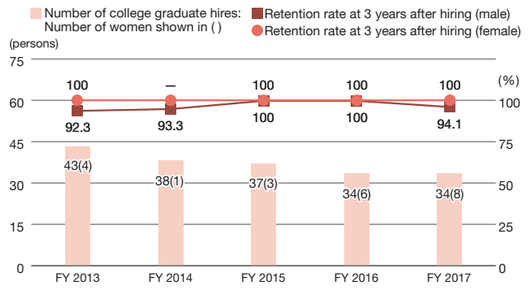
- Public announcements, both in and outside of the company, on our diversity policies
- Development of a medium-term plan and action guidelines on promoting diversity
- Implementation of diversity training and anti-harassment training (for executives and rank-based training)
- Dissemination of messages from top management in order to improve employees' understanding about diversity
- Publication of articles on the theme of diversity in our in-house newsletters
- Development of action plans that are in accordance with the Act on Promotion of Women's Participation and Advancement in the Workplace and the Act on Advancement of Measures to Support Raising the Next Generation of Children.

Three pillars of promoting diversity



In-house newsletter on diversity

Number of hired persons (by gender) and their retention rate

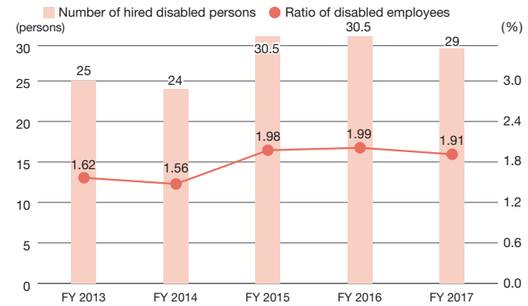


Acceptance of diversity

More emphasis will be placed on hiring and employing diverse candidates regardless of gender, age, nationality, ability or disability, and regardless of whether they are new graduates or mid-career hires, so as to create a more diverse organization. Moreover, we promote the exchange of staff between domestic offices and overseas subsidiaries to allow our employees to experience working in different environments and to promote personnel diversification at each worksite.

A group consisting 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, are provided to help participants recognize diverse values and empower individuals and organizations to raise diversity awareness.

Employment rate of disabled persons



The ratio of disabled employees fell below the legally required employment rate due to resignations, etc. We will make active and further efforts to encourage the hiring of disabled persons, and create workplace environments that are comfortable for such persons to work in by clarifying the issues at each site and taking appropriate measures to resolve those issues.

VOICE

Striving to be an employee that can make contributions in diverse situations

Sooihn Cho

Business Strategy & Administration Department
Agro Products Division

I joined Nisso Namhae Agro Co., Ltd., a joint venture company in South Korea. I worked in the administration division, and was then transferred to Nippon Soda in October 2016. I am currently responsible for business operations related to the consignment of overseas production of agrochemical substances, including to Nisso Namhae Agro. This has become a great opportunity for me to expand my outlook, as I am involved in a field of business that is different from what I had been doing previously. By coming to Nippon Soda, I have gained an increased awareness of the important role that Nippon Soda has served over the course of its history of nearly 100 years through the products that it offers in the food production and chemical industries around the world. I have also gained a stronger understanding of the fact that because of this important role, Nippon Soda has become an organization that affects and is also affected by the world. I will continue giving my best efforts in my work, and I hope to contribute to the company and also achieve personal growth in my position as an employee who has experienced diverse roles.

Promoting work-life balance

We are working to create a workplace environment where our employees are able to continue working steadily throughout the various lifestyle changes that occur in their lives, such as in relation to giving birth to a child, raising a child, and providing nursing care for ailing family members. We also support our employees in their efforts to live vital and enriched lives, such as by enabling them to take time for self-improvement activities and volunteer work. We are revising our work employment regulations and advancing working style reforms in order to create a workplace where our employees can pursue their work without compromising their health, and achieve a good balance between their work and private lives.

Changes made in fiscal 2017

- Lectures on work-life balance were offered at our training programs for each of the different ranks.
- We expanded the ways in which expired paid leave days can be used, making them available not only for recovering from personal injuries and illnesses, but also for child care, nursing care, fertility treatments and volunteer work.
- Changes were made to our childcare leave system for men, so that they are now able to take five days of paid leave.

Change in the number of employees who took child/family care leave

FY	Those who took child care leave (person)		Those who took family care leave (person)	
	Women	Men	Women	Men
2013	6	0	0	0
2014	6	1	0	0
2015	6	0	0	0
2016	2	1	0	0
2017	3	2	0	1

Change in the number of employees who took maternity/child care leave and the rates of those returning to work and those remaining for three years after returning to work (by gender)

FY	Employees who took maternity/child care leave (employee)		Rate of employees returning to work (%)		Rate of employees remaining with the company (%)	
	Women	Men	Women	Men	Women	Men
2013	4 (136)	0 (1,154)	100	—	100	—
2014	7 (134)	1 (1,151)	100	100	50	—
2015	5 (137)	0 (1,144)	100	—	83.3	—
2016	2 (142)	1 (1,137)	100	100	100	100
2017	3 (152)	2 (1,138)	100	100	100	100

The numbers were counted at the first fiscal year of the leave.
The numbers in brackets are the total numbers of men and women respectively at the end of each fiscal year.
Retention rate is for employees who in this fiscal year are in their third year since returning to work.

Total annual working hours per employee

Normal working hours (hours)	Early start and overtime hours (hours)	Holiday overtime hours (hours)
1,834.1	122.1	9.7

Paid annual leave days taken (days)	Various kinds of leave days taken (days)	Total annual working hours per person (hours)
15.4	1.9	1,747.7

Efforts to advance human rights at worksites

Respect for human rights

In accordance with our management philosophy, we are committed to contributing to social development through “chemistry.” To fulfill this commitment, we comply with laws and regulations and ensure sound as well as transparent business practices.

The Nippon Soda Group Code of Conduct, which sets out the requirements that all employees of the Nippon Soda Group must follow in their daily business activities, clearly states our commitment to respect for human rights and non-discrimination and declares that we respect the individuality and personal characteristics of every employee and do not take any action that would result in discrimination. In FY 2017, we received no complaints or reports about discrimination or the infringement of human rights.

Prevention of harassment

Nippon Soda’s employment regulations clearly prohibit any kind of harassment. All employees are required to be fully informed of the company’s policy against harassment we also provide rank-based training in order to ensure the prevention of harassment at the workplace. We also have developed a system under which a harassment complaint office is established at each business site, usually by the personnel department. All cases of harassment reported are addressed confidentially, with the human rights of all involved duly taken into consideration.

Improving employee satisfaction

Efforts to improve employee satisfaction

We conduct employee satisfaction surveys in order to create rewarding workplaces that all Nippon Soda employees can be proud of. The objective of the survey is to help us understand how employees feel about working for the company and the specific conditions of their workplaces, and to identify issues that need to be addressed in order to create environments where they can work happily and productively. Identified issues are addressed by implementing appropriate measures so as to increase our employees’ job satisfaction.

Implementation of an employee satisfaction (ES) survey

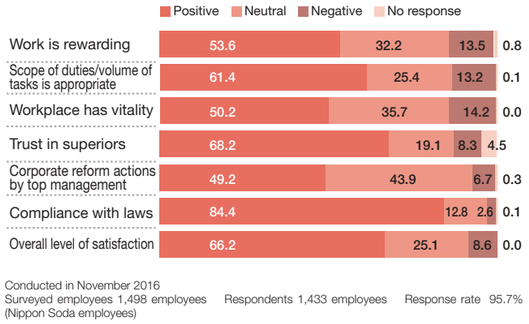
The first employee satisfaction survey was conducted in July 2013 targeting all employees, based on a proposal by the Human Rights/Labor Practices Working Group. The aim of this survey was to acquire an understanding of and make improvements in the level of satisfaction of our employees. Feedback on the results was provided to management and each business site, so that the issues could be shared. Each of the business sites in turn clarified the issues that they have, and the person responsible at each site played a key role in developing and deploying measures to strengthen the organization.

Three years have passed since the first survey, and a second survey was held on November 2016 in order to check the effects of the measures that were implemented following the first survey to strengthen the organization. This second survey was also conducted for the purpose of providing an understanding of how our employees currently feel about new issues, and so that the results could be utilized toward reviewing our corporate climate, system and framework. The survey was planned together with the Human Rights/Labor Practices Working Group and it enabled us to become aware of the issues from the previous survey, as well as the new issues that all employees need to be aware of.

● Results from the second employee satisfaction survey

The survey was given to 1,498 employees, of whom 1,433 responded, resulting in a response rate of 95.7%, which was even higher than the previous result (94.8%). Since our Group includes plant sites, the survey was conducted both online and by paper. In order to acquire a broad range of opinions from our employees, this survey for the first time included space for employees to enter any comments they wished to share. The volume of comments entered in this space by our employees was greater than we had expected. We believe it is important to not simply be satisfied with having conducted the survey, but to also take further action to grasp the trends and situations of the entire Group as well as of each of the different business sites that have become evident from the survey results. We also believe it is important to share information on the issues that have been identified, implement measures to resolve them and incorporate actions that were implemented following the previous survey and that had a positive effect in addressing the issues.

Results by category of the second employee satisfaction survey



Conducted in November 2016
Surveyed employees 1,498 employees Respondents 1,433 employees Response rate 95.7%
(Nippon Soda employees)

Measures to maintain health

The prerequisite for the longevity and development of a company is that its employees remain healthy. Nippon Soda conducts various initiatives related to health management and promotion in order to ensure our employees work with healthy bodies and minds.

● Physical health

Nippon Soda actively deploys a collaborative health business with the corporate health insurance society. Specifically, we offer various programs in partnership with industrial physicians, such as offering specified health checkups, specified health guidance, and checks for lifestyle-related diseases.

● Psychological health

In accordance with the revision of the Industrial Safety and Health Act, starting December 2015, employers are now required to provide all employees with a stress check once a year. Although we had been providing stress checks before this, we organized our first employee stress check since the revision (which took place in November of the previous year) during this past fiscal year. This check was conducted for the purpose of further enhancing self-care (health management conducted by each individual), and for developing a workplace that is comfortable to work in. We will continue to develop an environment where all persons are able to work with vitality.

Labor-management relations and improvement of working conditions

Basic working conditions are determined by labor agreements concluded between the company and the labor union and renewed every year. Under the motto of “dialogue rather than negotiation,” we gain an understanding about how our employees are feeling, and create an environment where we are able to engage in labor-management discussion of frontline problems and issues as they are happening. The expanded use of expired paid leave in fiscal 2017 was also realized through labor-management dialogue. We will continue to have constructive discussions with the labor union in our efforts to improve working conditions, cooperating to do what we need to now for the future of our company and its continued development.

Number of labor union members (Nippon Soda)

FY	The number of labor union members (person)	Average age (years)	Average length of service (years)	Rate of members (%)
2013	863	41.6	20.7	66.9
2014	856	40.9	19.9	65.5
2015	845	40.6	19.3	65.0
2016	844	40.4	18.9	64.8
2017	820	39.3	17.6[1]	63.3

1. Re-hired employees are excluded from the above.

VOICE

Living a more enriching life through ways of working that offer different choices

Mariko Hashi

Human Rights/Labor Practices Working Group
(Safety Assessment Section
Regulatory Affairs Department
Agro Products Division)

The Japanese government announced the execution of its plan to reform the ways in which the nation works. The current ways of working that we see around us, such as the promotion of women’s participation and advancement in the workplace and in regulations on overtime work, signify a period of transition. The tendency right now is to look at the employment situation of women and non-Japanese people; but searching for ways of working that increase efficiency and results will also help improve the labor conditions of all persons. Although not every employee may be involved in child care or nursing care, every employee faces the possibility of becoming ill or injured, and so having choices in how we work will help us all live long and enriched lives.

Together with Our Business Partners
(Fair Operating Practices)

The Nippon Soda Group promotes sound business activities that are fair and just by conducting dialogue and awareness-building activities with our business partners in order to comply with legal requirements.

Basic Concept

The Nippon Soda Group is founded upon the basic concept of conducting sound and transparent business management in compliance with the law. As such, we established a purchasing policy that is predicated upon interacting with our business partners with dignity and integrity and handling affairs in a fair and just manner. We strive to promote business activities that not only make effective use of the resources of the entire Group, but also answer the trust that we receive from our stakeholders.

Policy for FY 2018

The goals established in our purchasing policy are not just targets to be achieved within a single fiscal year, but those to be sought after on a continuous basis. Thus, we will continue striving to achieve our goals under the same stance as for fiscal 2017.

Goals and evaluations for fiscal 2017

We endeavored to achieve the goals in our purchasing policy during fiscal 2017. However, we faced setbacks in the production plan for some of our products. We also had one incident that infringed upon the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, caused by incompetence in our accounting processing. Since the established goal, which is to develop a system for attaining stable procurement of raw materials, is not something that can be completed within one fiscal year, we will continue our efforts to build this system.

Most of our other purchasing activities succeeded in following our purchasing policy.

Concept on procurement

We will continue our purchasing activities based on confirming the safety and health measures of the business partners from whom we purchase, including manufacturers from whom we currently procure raw materials as well as those with whom we will do business in the future. The safety and health efforts of our business partners will be confirmed through such activities as collecting information from trade companies from whom we make purchases, and by implementing audits in cooperation with the quality management department of each of our plants.

Efforts in procurement

Compliance with the code of conduct

We established the following code of conduct with business partners from whom we make purchases, and are striving to comply with it.

- When assessing numerous vendors to choose a supplier, we will determine the most appropriate business partner by comparing and evaluating such criteria as the following in a fair and just manner: quality, price, delivery period, technical and developmental abilities, and stability of supply.
- When consigning production to a business partner, we will take actions based on a full understanding of the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, and be careful not to delay payment due to ineptitude in our transactions.

Purchasing policy

We will continue our efforts to achieve the following.

- Conduct purchasing activities grounded in legal compliance
- Execute raw material procurement that contributes toward realizing stable production
- Consider purchase balance aimed at achieving cost reduction
- Develop a stable procurement system rooted in a BCP (business continuity plan), such as having multiple sources from which to procure raw materials
- Realize appropriate inventory management of raw materials
- Participate in in-house and external training programs with the aim of acquiring and maintaining knowledge on various laws related to purchasing (Antimonopoly Act, Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, etc.)

Nippon Soda's responsibilities and approaches

In order to achieve the goals of our purchasing policy, it is essential that we implement initiatives that will allow us to capture information on the situation of our business partners from a variety of perspectives. This information gathering is basically done in an indirect manner through the trading company that procures the raw materials, but whenever there is an opportunity, we also strive to confirm the situation directly with the manufacturer of the raw material. We are working with our business partners to develop relationships that lead to mutual growth by implementing direct and indirect means of gathering information. By these activities, we are deepening the understanding that our business partners have toward Nippon Soda Group's purchasing policy and purchasing activities, and are making every effort to continue to conduct fair, just and sound procurement activities.

Strengthening relationships with our business partners

CSR in procurement is becoming increasingly important in the current global business environment. The Nippon Soda Group is considering and promoting initiatives to enhance our current procurement activities, based on our commitment toward ensuring CSR in our procurement activities. By these efforts, we strive to avoid social and environmental risks, while also improving our corporate value and competitiveness.

The Nippon Soda Group upholds its position of emphasizing the social responsibilities associated with raw material procurement. With this in mind, we actively seek dialogues with our business partners, and are working to achieve improvement and growth for both suppliers and buyers while maintaining good and mutually beneficial relationships.

Dialogue with our business partners

Improve awareness on safety and disaster prevention together with our affiliated companies

Education on the safe use of agricultural machinery is being provided at the various agricultural fields under the jurisdiction of Odawara Research Center targeting Group companies to whom daily operations are consigned. Maintenance work at the agricultural fields involves numerous situations in which agricultural equipment, such as grass cutters and tractors, is used. Thus, it is imperative that we implement initiatives to improve awareness on safety and disaster prevention among the employees of Group companies who work at our agricultural fields. We are working to improve awareness on safety and disaster prevention of not only the employees of Nippon Soda, but also of employees of the companies who work within our facilities, such as by developing a list that clarifies who has qualifications for operating agricultural machinery and equipment, and their level of performance in operating such equipment. Through such efforts, we are working with our Group companies toward our goal of achieving zero accidents by everyone.

Educating transportation firms on distribution safety

The Nippon Soda Group regularly provides education targeting transportation firms that deliver our products to customers. These programs not only provide education to prevent accidents by our workers and during transport, but also provide information on past complaints received regarding distribution. By sharing such information, we strive for the safe delivery of our products to our customers.

Training at Sanwa Soko Co., Ltd.'s Kawasaki Office

VOICE

CSR in raw material procurement

Shoji Furune
Purchasing Section
Purchasing & Logistics Department

The Purchasing Section has the important responsibility of achieving the stable procurement of raw materials that have passed the required quality standards so that production at plants is not affected. We procure a diverse range of raw materials, and these are acquired from large companies as well as medium- and small-sized companies. Such companies are located not only in Japan, but throughout the world.

In today's world, we are seeing the increased globalization of economic activities, and the increased importance of social responsibility in corporate activities. In this environment, we strive in our procurement operations to comply with various laws, rules, and regulations related to purchasing. We also make daily efforts to prevent various social and environmental risks by continuously confirming the health and safety practices of the companies that produce the raw materials we procure, such as by gathering information from the trading companies that provide the raw materials to us, and by implementing audits together with the quality management departments of our various plants.

Together with Our Shareholders

The Nippon Soda Group discloses information in a timely and appropriate manner in order to enhance our management transparency and to answer the expectations and trust that we receive from our stakeholders. We are striving to hold constructive dialogues with our shareholders toward realizing continuous growth and to improve our corporate value.

Basic Concept

The Nippon Soda Group believes that in order to achieve continuous growth and improve our corporate value over a medium- to long-term period, it is essential that we have constructive dialogues with our shareholders and investors. As such, our President and responsible directors and executive officers are available for such dialogues when necessary. We also work together with each of the departments in disclosing information in a timely manner, with a focus on fairness and accuracy, in accordance with the Timely Disclosure Rules established by the Tokyo Stock Exchange. Requests and comments received from our shareholders and investors through such dialogues are raised at our Board Meeting as necessary, and reflected in our management.

Policy for FY 2018

The Nippon Soda Group strives to disclose information that is accurate and easy to understand in a fair and timely manner. We do this so that our corporate value can be justly evaluated for the appropriate formulation of our share value, and for the purpose of maintaining and developing a relationship of trust with our stakeholders.

Communication

Dialogues with investors and analysts

The Nippon Soda Group actively holds dialogues with investors and analysts in order to help them deepen their understanding about our business details and our business performance.

We hold financial results briefings twice a year for institutional investors and security analysts, and also answer their requests for individual interviews. Our President and responsible directors explain in person the performance of the Nippon Soda Group and its growth scenario.

We send our annual reports to institutional investors outside of Japan on an annual basis. A summary of our financial results are provided in English as part of our efforts to help people outside Japan deepen their understanding of the Nippon Soda Group. We also answer requests for individual interviews at conferences in and outside of Japan and through conference calls. In fiscal 2017, our responsible director visited Europe and Asia and gave explanations in person to individual institutional investors in those areas.

The questions and comments received through such dialogues with investors and security analysts are input into our in-house database. Such feedback is provided at the Board Meeting as necessary, and is being reflected in the management of our Group where appropriate.

Annual Report 2016


Financial results briefing

Results of fiscal 2017

May 2016	Financial results briefing for institutional investors and security analysts for the year ended March 2016
June 2016	147th ordinary general meeting of shareholders Issuance of business report for shareholders (annual report)
September 2016	Issuance of annual report for institutional investors outside of Japan
November 2016	Financial results briefing for institutional investors and security analysts for the 2nd quarter of the year ending March 2017
December 2016	Issuance of business report for shareholders (interim report)
January 2017	Overseas IR (individual visits to institutional investors in Europe)
March 2017	Overseas IR (individual visits to institutional investors in Asia)
As necessary	Individual interviews with institutional investors and security analysts Disclosure of timely disclosure information (Tokyo Stock Exchange) Disclosure of PR information (Tokyo Stock Exchange) Provision of information on the Nippon Soda website

Dialogues with our shareholders

The Nippon Soda Group regards our ordinary general meeting of shareholders, which is held every year in June, as an important opportunity for us to engage in direct conversation with our shareholders.

We deliver the notice of convocation of the general meeting of shareholders at an early date—three weeks before the meeting—in order to help our shareholders acquire a good understanding of the issues that will be reported and the matters for resolution. Furthermore, in 2016, we provided 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 was sent out. As for the exercise of voting rights, this has been made possible not only in writing but also via the Internet. We are furthering other efforts to improve the convenience of our shareholders, such as participating in the platform for institutional investors to exercise their voting rights.

The notice of convocation of the general meeting of shareholders was printed in color to make it easier to understand, and has been created with a universal design font that is easier to read. A summary of the notice was also created and announced in the English language.

We issue our business report (annual report and interim report) twice a year in order to inform our shareholders about the current situation of our company. These business reports are posted on the Nippon Soda website to make them widely available to those other than our shareholders.


Ordinary general meeting of shareholders


Business report 2016

Basic policy on shareholder returns

The Nippon Soda Group makes decisions on profit distribution based on revenue trends and by comprehensively considering such issues as maintenance of stable dividends, enhancement of shareholders' equity, and improving our financial standing. Our basic policy is to provide dividends twice a year, at the middle and end of the fiscal year.

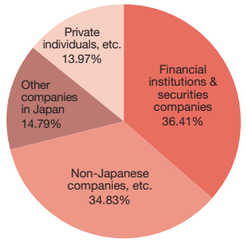
Retained funds are used for improving corporate value, such as by advancing the development of new products and to achieve early market launch, and for allotment in growth investment such as M&A and business partnerships, as well as for the continuation and renewal of investments toward stable and continuous growth.

As for return of profits to our shareholders, we strive to provide a stable and continuous dividend distribution with the goal of realizing a total return ratio of 30% based on the shareholders' return policy stated in the new medium-term business plan for fiscal 2018 to fiscal 2020, while also maintaining financial resources for growth investments. We will also adopt a flexible stance on repurchasing treasury shares as a shareholder return measure to supplement dividends.

Total return ratio =
(Total amount of dividends + total amount of purchase of treasury shares) / consolidated profit

In fiscal 2017, our interim dividend was 6 yen per share, and the term-end dividend was 6 yen per share. We also purchased approximately 2 billion yen of treasury shares between August and October of 2016. As a result, the total return ratio for fiscal 2017 was 43%.

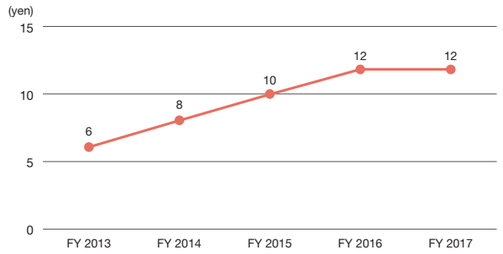
Share distribution by type of shareholder (as of March 31, 2017)



Total number of authorized shares 480,000,000 shares
Total number of issued shares 155,636,535 shares
Number of shareholders 17,197 persons

Notes:
1. Figures have been rounded off to the nearest third decimal point
2. Treasury shares are included in "private individuals, etc."

Trend in annual dividends



VOICE

We will disclose appropriate information and strive to realize constructive dialogues

Masahiro Arichika
Corporate Communications Section and Corporate Strategy Department

The Corporate Communications Section actively holds dialogues with institutional investors and securities analysts both in and outside of Japan in order to help them deepen their understanding about the Nippon Soda Group. We strive to provide accurate and easy-to-understand material, as well as detailed explanations, at our financial results briefings and in individual interviews. In recent years, there has been heightened interest in investments made in the ESG (environment, society, governance) segment. As such, information on Nippon Soda Group's CSR activities in this area is now included in our annual report, starting 2016.

Another important duty of our section is to inform management about the comments we receive from the investors. Members of the Corporate Communications Section are also responsible for the Corporate Strategy Department so we have a good structure for sharing information with the department responsible for overseeing our business strategy. The Nippon Soda Group's new medium-term business plan has started being implemented from fiscal 2018. This plan was developed by reflecting opinions that we received from investors.

We will continue to realize the appropriate disclosure of information and to hold constructive dialogues for the purpose of improving the corporate value of the Nippon Soda Group.

Together with Our Local Communities

(Community Involvement and Development, Social Dialogue)

We will make efforts to improve the general public's confidence in us by participating in various environmental protection and safety activities and proactively engaging in dialogue with stakeholders regarding the effects of chemical substances on safety, health and the environment.

Basic Concept

The Nippon Soda Group promotes social contribution activities that are befitting of our organization, based on the concept of making contributions through our business toward the development of a sustainable society. Such activities are based on the following viewpoints: contributing to resolving problems pertaining to the global environment; maintaining harmonious relationships with local communities; and contributing to the development of those communities.

Each business site and group company conducts various activities that accord with the needs of the area, and strives to develop good relationships with everyone in its local community.

Policy for FY 2018

We will continue organizing local gatherings at the same frequency as we are doing now, and their contents will be enhanced. One stakeholder engagement gathering will be organized for each worksite.

Harmonious relationships with local communities

Contribution to local employment

The ratio of the standard minimum wage to the local (prefectural) minimum wage at different worksites in FY 2017 is as shown below:

Comparison of the standard minimum wage to the local minimum wage in FY 2017

Site	Location (prefecture)	Local minimum wage (yen/h)	Our company's standard minimum wage* (yen/h)	Comparison with the minimum wage (%)
Head Office	Tokyo	932	1,086	116.5
Odawara Research Center	Kanagawa	930	1,086	116.8
Chiba Research Center	Chiba	842	1,084	128.7
Nihongi Plant	Niigata	753	1,084	144.0
Takaoka Plant	Toyama	770	1,084	140.8
Mizushima Plant	Okayama	757	1,084	143.2
Chiba Plant	Chiba	842	1,084	128.7

Note: Standard minimum wages for the company were calculated based on the starting wages (same for men and women) for those joining the company at the age of 18 in the manufacturing and non-manufacturing groups. Decimal points were rounded off.

Participation in cleanup activities for local communities

Nippon Soda regularly conducts cleanup activities for local communities in the neighborhoods of our worksites. We also actively participate in cleanup activities that are conducted together with people from the local communities, such as eco-walks and cleanup campaigns.

Frequency of cleanup activities for local communities

FY	2015	2016	2017
Nihongi Plant	1	2	2
Takaoka Plant	2	2	2
Mizushima Plant	2	1	1
Chiba Plant & Chiba Research Center	3	3	3
Odawara Research Center	0	0	1

Dialogues with the local communities

Communication activities at major worksites

Nippon Soda holds local gatherings and regularly offers tours of plants and research centers to residents in areas where its offices are located in order to provide information on CSR activities and receive feedback.

External communication events at major sites (frequency)

FY	Site	Local gatherings	Tours of sites	Local dialogue meeting of JCIA RC Committee	Other
2015	Nihongi Plant	26	1	0	17
	Takaoka Plant	6	27	1	63
	Mizushima Plant	10	0	1	22
	Chiba Plant	0	1	1	17
	Odawara Research Center	2	35	0	3
	Chiba Research Center	0	0	0	0
2016	Nihongi Plant	26	1	0	18
	Takaoka Plant	7	41	4	6
	Mizushima Plant	12	0	0	20
	Chiba Plant	0	2	0	19
	Odawara Research Center	2	45	0	8
	Chiba Research Center	0	7	0	0
2017	Nihongi Plant	26	1	0	16
	Takaoka Plant	6	43	1	14
	Mizushima Plant	13	1	2	35
	Chiba Plant	0	2	1	18
	Odawara Research Center	1	49	0	9
	Chiba Research Center	0	2	0	0

Dissemination of information on CSR activities

The Nippon Soda Group disseminates information on its CSR activities by the following means: the CSR Report is available to anybody in the form of a brochure or via our website, and reports on activities and plans for activities are submitted to the Japan Chemical Industry Association and distributed at local and other meetings.

As for responsible care activities, we held the 11th Responsible Care Local Dialogue in Chiba, together with other manufacturers in the Complex, on February 9, 2017 at Goi Kaikan (Public hall) in Ichihara City as an occasion to share information on our daily activities with the residents of our local communities. Eight employees from Chiba Plant participated. The total number of participants in the dialogue was 161.

11th Responsible Care Local Dialogue in Chiba (February 9, 2017)

Each of our worksites provides information on our activities through regularly offered tours and other gatherings. The "Thanking Local Residents" event that was held at Takaoka Plant on October 23, 2016 was attended by 220 local residents. Programs offered during this event included a plant tour, an exhibition of photos of RC activities, free copies of the CSR Report, an introduction to our products, and chemistry experiments for children.

"Thanking Local Residents" event at Takaoka Plant (October 23, 2016)

Dialogue with local residents

Regular gatherings are held at where our worksites are located in order to give us an opportunity to hear the opinions of local residents. These local gatherings were held 47 times in fiscal 2016, and 46 times in fiscal 2017.

Case Study

External communication

Takaoka Plant conducts environmental monitoring in cooperation with 12 residents representing six local residents' associations in the vicinity of the plant. In FY 2017, we received two reports, including notices received from those other than these environmental monitors, all of which have been addressed appropriately. (The rate of responding to reports by Takaoka Plant and all the other offices was 100%.)

Report 1

Report dated May 7, 2016, stating that the chairman of the local residents' association visited Takaoka Plant to say that white smoke was detected coming from the direction of Hokusan High Pressure Gas Co., Ltd., which is situated next to Takaoka Plant.

Measures and actions implemented

The person responsible at Takaoka Plant immediately checked the site, but could not confirm any white smoke. However, LNG (liquefied natural gas) is regularly transferred from a truck into a storage tank on the premises of Takaoka Plant at a location facing Hokusan High Pressure Gas, and it was noted that vapor from the chilled air had fanned out throughout the area. Thus, it is believed that this chilled air reached beyond the fenced wall of the plant and drifted out to the road. Later, the environmental monitor who was contacted by the chairman of the local residents' association came to the plant to check the situation. The environmental monitor was informed that the white smoke was not from any abnormalities at the plant, and the explanation was accepted. The chairman of the local residents' association was contacted again and was given a report saying that the white smoke had been from chilled air. The chairman also accepted this report.

Report 2

Report dated November 1, 2016, stating that a resident had notified the Regional Safety Section of the Takaoka City government, saying, "I saw black smoke coming out of the chimney of Nippon Soda's Takaoka Plant on October 24 (Monday) from 10 a.m. to 10:30 a.m. I am very displeased by this. I was informed that the chimney has not been in use for these past 20 years." Having received this report, a representative of the Regional Safety Section came to the plant to check on the situation.

Measures and actions implemented

At the time, the boiler was being started up at Takaoka Plant, and the black smoke was discovered to have been caused by a lack of oxygen when the gas was being emitted. The Regional Safety Section representative was informed that this was an event without warning that does not normally occur, and this explanation was accepted. Later, on November 7, the person who made the report was informed that, although this person spoke of having been informed that the chimney had not been used for the past 20 years, it is actually a chimney for the boiler and has actually been in use for many years. This individual was also informed that the black smoke seen on October 24 was a result of a lack of oxygen when the boiler was started up, and is not something that occurs under normal circumstances. Apologies were made, and it was also explained to the individual that we would strive to improve the situation. The explanations and apologies were accepted by this resident.

Major CSR activities of the Nippon Soda Group

Nippon Soda conducts CSR activities from the perspective of living in harmony with local communities, and for the development of local communities.

Participation in local events

Site	Name of local event	Date	Summary	Number of participants
Nihongi Plant	Plant tour for families	July 28, 2016	Plant tour for employees' families	108 persons
	Cleaning from the plant's west entrance up to the road connecting to the national road	June 23, 2016	Activity initiated by the KAIZEN Team and the Production Management Section (Picking up trash along the road)	16 persons
	Fujisawa area autumn festival	August 24, 2016	Participation in a festival held in the plant's neighboring community (carrying the portable shrine)	Plant Manager and 3 other persons
Takaoka Plant	Ogino Tenmangu Shrine renovation commemoration ceremony	April 23, 2016	Ceremony to commemorate the completion of renovation work on the Ogino Tenmangu Shrine	2 persons from plant
	Summer festival hosted by Ogino residents' association	August 13, 2016	Summer festival hosted by the Ogino residents' association	2 persons from plant
	Disaster prevention training for high-pressure gas transfer	October 14, 2016	Training for an accident involving a tank truck loaded with liquid chlorine	280 persons 12 persons from plant
	"Thanking Local Residents" event	October 23, 2016	Plant tour, chemistry experiments for children, panel displays	220 persons 40 persons from plant
	Meeting with environmental monitors	November 24, 2016	Exchange of opinions with environmental monitors	9 persons 5 persons from plant
	Meeting with local residents	November 29, 2016 December 1, 2016 December 6, 2016 December 8, 2016	Exchange of opinions with local residents	41 persons 5 persons from plant
	Networking event with Mukaino residents' association	December 3, 2016	Party with the Mukaino residents' association	47 persons 3 persons from plant
Mizushima Plant	Cherry blossom party with local residents' associations	April 2, 2016 April 3, 2016	Networking with local companies and executives of the local residents' association	1 person each
	Ground golf competition with Honjo school district and local companies	May 14, 2016	Ground golf competition held also for networking with local companies and the Honjo school district	1 person
	Bon dance festival with local residents' association	August 11-13, 2016	Bon dance festival held also for networking with local companies and the local residents' association (4 areas in 3 days)	1-2 persons each
	Zero trash campaign for the entire Kurashiki City	September 4, 2016	Working together with local residents to pick up trash along the surrounding roads	1 person
	Rice-cake-making party with Honjo school district and local companies	December 11, 2016	Rice-cake-making festival held also for networking with the local fire department and local companies	2 persons
Chiba Plant	Wakamiya Hachiman Shrine Grand Festival	July 17, 2016	Grand Festival of the Wakamiya Hachiman Shrine	1 person
	Iwasaki bon dance festival	August 6, 2016	Iwasaki bon dance festival at the Ryokuchi Sports Park	1 person
	Matsugashima summer festival	July 31, 2016	Summer festival in Matsugashima	1 person
	Tamasaki summer festival	August 20, 2016	Summer festival at the plaza in front of the Tamasaki community building	1 person
	Omiya Shrine autumn festival	November 1, 2016	Autumn festival of the Omiya Shrine	1 person
	Omiya Shrine New Year festival	January 1, 2017	New Year festival of the Omiya Shrine	1 person
	Yakumo Shrine spring festival	March 11, 2017	Spring festival of the Dezu Yakumo Shrine	1 person
	Iwasaki Inari Shrine annual spring festival	March 5, 2017	Annual spring festival of the Iwasaki Inari Shrine	1 person
	Kashi Fuki Inari Shrine festival	March 12, 2017	Festival of the Kashi Fuki Inari Shrine held at Kashi Park	1 person
	Goi Rinkai Festival	June 5, 2016	Local residents coming together at the Ichihara Ryokuchi Sports Park	10 persons
	Kazusa Ichihara Kokufu Festival	October 1-2, 2016	Local residents coming together at the Kazusa Sarashina Park	2 persons
	Singles event at an industrial complex	November 6, 2016	Singles event held at the Brick & Wood Club	5 persons

Living in harmony with local communities Helping the development of local communities

The worksites of the Nippon Soda Group undertake diverse activities that match the needs of the area, and strive to develop good relationships with everyone in their local communities.

Takaoka Plant

"Thanking Local Residents" event
October 23, 2016

Nihongi Plant

Plant tour for families
July 28, 2016

Chiba Plant

Goi Rinkai Festival
June 5, 2016

Nihongi Plant

Fujisawa area autumn festival
August 24, 2016

Mizushima Plant

Rice-cake-making party with Honjo school district and local companies
December 11, 2016

Chiba Plant

Singles event an industrial complex
November 6, 2016

Stakeholder engagement

Nippon Soda is actively involved in stakeholder engagement through dialogues with our stakeholders in order to deepen our understanding of society's needs and values, and to advance business activities that meet the expectations of the local communities with which Nippon Soda has ties. Stakeholder engagement activities were held 11 times in fiscal 2016, and 10 times in fiscal 2017.

BCM rating from the Development Bank of Japan (DBJ)

Reviewed on November 2, 2012
Rated on January 15, 2013 Rank A (the best)

Environmental Responsibility Rating from the DBJ

FY 2015 Rank B

In March 2015, Nippon Soda received a loan from the Development Bank of Japan as a result of receiving high marks under the bank's DBJ Environmental Ratings for our "particularly cutting-edge, environmentally conscious efforts."

Hosting stakeholder dialogues

The Nippon Soda Group held a stakeholder dialogue at its Head Office on December 16, 2016 regarding materiality that the Group needs to be involved in. (For more information, please see pages 25 to 28.)

Efforts to prevent occupational accidents

As part of our stakeholder engagement activities, on December 9, 2016, the Risk Engineering Department of Sompo Risk Management & Health Care Inc. was asked to conduct an occupational health and safety survey at Mizushima Plant. (For more information, please see page 52.)

Implementation of diagnosis of disaster prevention capability

Disaster prevention capability diagnosis was performed by the Sompo Risk Management & Health Care Inc.
(For more information, please see page 90.)

Chiba Plant	June 3, 2016	Nihongi Plant	November 17 to 18, 2016
Mizushima Plant	September 8 to 9, 2016	Nisso Metallochemical Co., Ltd. Aizu Plant	May 26 to 27, 2016
Takaoka Plant	September 29 to 30, 2016	Nisso Fine Co., Ltd. Isohara Plant No. 1, No. 2	June 23 to 24, 2016


Chiba Plant


Mizushima Plant


Takaoka Plant


Nihongi Plant


Nisso Metallochemical Co., Ltd.


Nisso Fine Co., Ltd.

Signing of and support for economic, environmental and other initiatives, social charters, and principles

Title	Applicable countries	Applicable worksites	Signature date	Voluntary/ Mandatory
Declaration on the promotion of responsible care activities	Japan and 43 other countries and regions	All offices, consolidated subsidiaries	October 30, 1998	Voluntary
Declaration on the promotion of CSR activities	Japan and 43 other countries and regions	All offices, consolidated subsidiaries	April 1, 2012	Voluntary
Responsible Care Global Charter	Japan and 43 other countries and regions	All offices, consolidated subsidiaries	December 5, 2014	Voluntary

Membership categories at advocacy organizations and institutions in Japan and abroad

Advocacy institutions	Applicable countries	Membership	Reference page
International Council of Chemical Associations (ICCA)	Worldwide	Participating as a corporate member of JCIA	p. 58
Japan Chemical Industry Association (JCIA)	Japan	Corporate member	p. 58
Global Product Strategy (GPS)	Worldwide	Participating as a corporate member of JCIA	p. 58
Japan Initiative of Product Stewardship (JIPS)	Japan	Participating as a corporate member of JCIA	p. 58
Japan Soda Industry Association (JSIA)	Japan	Member	p. 58

Activities to develop trust with local communities

The Nippon Soda Group recognizes and awards employees who achieve results in their CSR activities.

Presentation of successful cases

The Nippon Soda Group provides presentation opportunities to employees who have demonstrated results in their efforts to improve environmental protection, energy saving, productivity, distribution safety, process safety & disaster prevention, and occupational safety and health and others within their worksite.

From among the different presentations on improvement efforts made at the worksites, the presenters of those deemed particularly outstanding are given the opportunity to introduce their efforts at a company-wide presentation attended by executives and worksite leaders. The 37th company-wide presentation for fiscal 2017 was held on November 25 at our Head Office and featured 12 presentations.

Videos of the presentations were simultaneously streamed online for viewing at each worksite.


Presentation attendees


Scene from the presentation

VOICE

Interacting with local society

Hiroyasu Hosokawa
Agricultural Field Management Group Leader
Haibara Field Research Center
Odawara Research Center

Haibara Field Research Center is located in the Sakabe District of Makinohara City in Shizuoka Prefecture, where Mt. Fuji Shizuoka Airport is located. In order to achieve stable operation of our business activities, it is important that we not only interact with local residents and help them deepen their understanding of our business, but also strive to contribute to the community and thereby develop bonds of trust. In interacting with local residents, we have long been actively participating in networking meetings with community representatives. Furthermore, we offer plant tours to introduce our facilities and activities to residents. We also strive to contribute to the community by regularly weeding the adjacent agricultural reservoir and prefectural roads. We will continue our activities to promote exchanges with local people and contribute to the local community in order to gain the understanding and trust of residents.

We adopt the Corporate Governance Code as the basis for our business activities with an emphasis on sound and transparent business management that complies with the law.

Corporate Governance

Basic concept

Nippon Soda places primary importance on sound and transparent business management in compliance with the law. Its management philosophy is to contribute to social development by providing superior products through chemistry, to meet expectations from stakeholders, including shareholders, business partners, employees and local communities, and to promote environmentally conscious business practices and activities. Under this philosophy, Nippon Soda is committed to growing into a technology-oriented group that develops high value-added products by making best use of its proprietary technologies and expands its business internationally with a focus on chemistry. Nippon Soda recognizes the importance of good corporate governance in order to achieve its philosophy and respond promptly and effectively to sudden changes in the business environment.

Basic policy

Nippon Soda is fully aware of its fiduciary duty and is committed to improving its corporate governance system to meet this fiduciary duty in line with corporate governance codes and according to the following five basic principles:

1. Ensure equality among shareholders and provide an environment for the appropriate exercising of rights
2. Ensure appropriate collaboration with stakeholders (customers, business partners, employees, local communities, etc.) other than shareholders.
3. Ensure appropriate disclosure of information as required by law and ensure transparency through proactive disclosure of information that is not required by law
4. Fulfill the responsibilities and roles of the Board of Directors to make decisions in a transparent, fair and prompt manner, based on our fiduciary duty
5. Help shareholders understand our management policy and promote constructive dialogue to achieve sustainable growth

For details of the state of the governance system, please refer to the securities report.

Corporate governance system

To meet social demands, including the adoption of the Corporate Governance Code, Nippon Soda deepens its understanding of social contexts and respects their meaning in order to improve the corporate governance system.

The Board of Directors

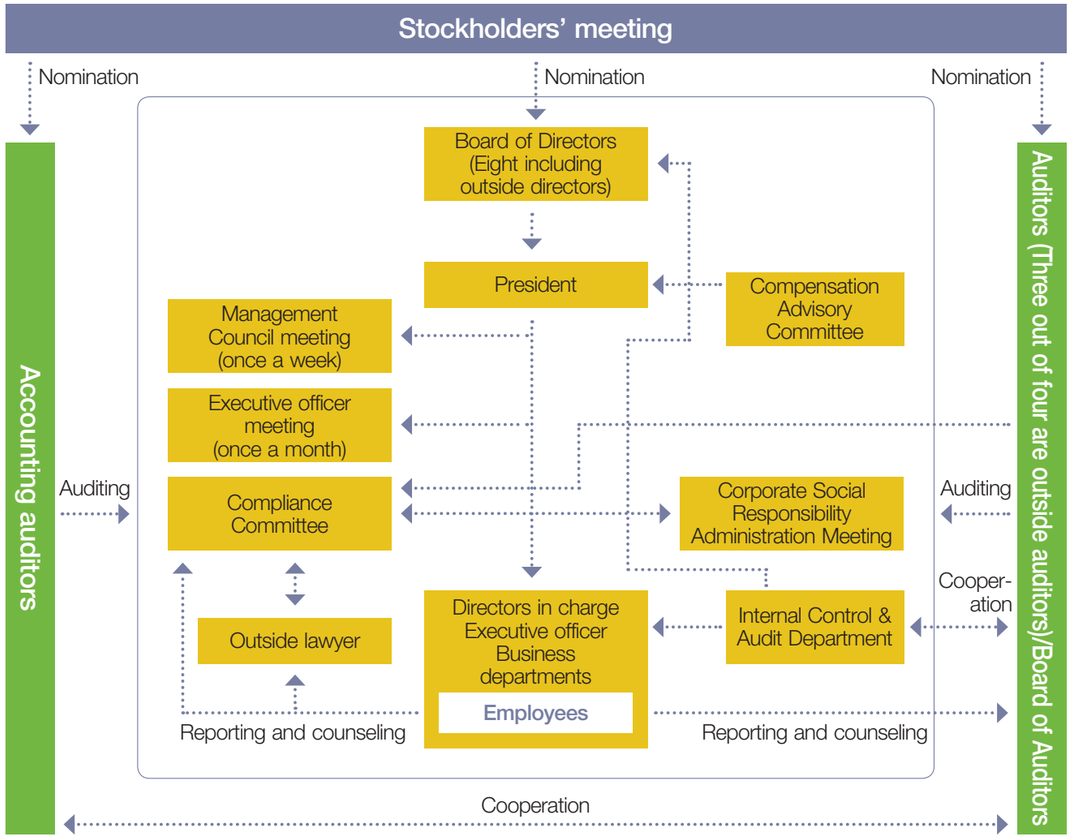
Nippon Soda's Board of Directors, consisting of eight directors, including outside directors, holds meetings 12 times a year (generally once a month) to intensely discuss issues governed by laws, regulations and bylaws, important decisions related to business management defined by the Board's regulations, and supervision of business execution, with the aim of promoting agile and efficient management. The tenure of directors is one year so as to ensure a prompt response to any change in the external environment and to clarify managerial responsibility.

The Board of Auditors

Nippon Soda's Board of Corporate Auditors consists of four auditors, including three outside auditors. It holds regular meetings with the accounting auditor mainly to report plans and results of audits.

The Internal Control & Audit Department cooperates with auditors to promote appropriate functioning of the internal control system in business processes.

Corporate governance system and Corporate Social Responsibility Administration Meeting



Outside directors

Nippon Soda's outside directors are selected from among candidates who have no conflict of interest with general shareholders. They ensure objectivity and rationality in business decision-making by the Board of Directors so as to improve medium- and long-term corporate value.

Management Council meeting

Nippon Soda's Management Council, mainly consisting of executive officers who concurrently hold the position of director, 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 management.

Effectiveness assessment of the Board of Directors

The Board of Directors conducts an annual self-assessment questionnaire on all directors and auditors to determine proper business management and improve supervisory functions. Based on questionnaire results, the company analyzes and evaluates the effectiveness of the Board of Directors.

The assessment results have confirmed that the Board of Directors of Nippon Soda maintains overall effectiveness as of 2016. At the same time, however, some issues that need to be improved to achieve a better process for developing medium- and long-term business plans and better functioning of outside directors were identified. With this in mind, we will continue our efforts to improve the Board's effectiveness.

Internal Control and Risk Management

The internal control system

1 In accordance with the basic policy regarding the improvement of systems necessary to ensure proper business operation, Nippon Soda establishes and implements systems that ensure compliance and efficient and sound company management as well as providing 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 ensure 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 Under the Corporate Social Responsibility Administration Meeting chaired by the President, we promote business activities taking into account environmental protection, occupational safety, product safety and human rights, as well as implement risk management according to corporate rules such as environmental management rules and security management rules, 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 rules, to address the accident in a cross-sectional and systematic way.
4 If a natural disaster, such as a large earthquake, or any crisis that could have disastrous consequences occurs, we shall respond appropriately according to the business continuity plan (BCP).
5 Other risks associated with business execution are appropriately addressed by responsible departments in accordance with relevant manuals and other documents.
6 The Internal Control & Audit Department, independently from business departments, assesses the appropriateness and efficiency of business activities and the reliability of financial reports and promotes the appropriate functioning of the internal control system in business processes.

Internal audit

The company's Internal Control & Audit Department is independent from business departments. In cooperation with auditors, the Department, on a regular basis, assesses the appropriateness and efficiency of business activities and the reliability of financial reports.

Auditors are familiar with the entire Nippon Soda Group and inspect and monitor the proper effectiveness of internal control. To ensure the reliability of financial reports, they receive regular reports from the accounting auditor and also work in close cooperation with him/her. They sometimes join some audits.

The risk management system

1 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.
2 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.
3 The requirements that allow the Group to conduct sound business activities are specified in the Nippon Soda Group Code of Conduct, which is distributed to the management and all employees of Nippon Soda and its consolidated companies. In addition, training based on the Code of Conduct is regularly provided.
4 A consultation hotline is available to employees of Nippon Soda and its group companies who have violated internal policies or who have discovered violations committed by others to assist them in directly consulting with the Compliance Committee, a legal advisor or an auditor.

Information disclosure to stakeholders

The director in charge of general affairs or the IR general manager plays a leading role to promote constructive communication with investors and shareholders to achieve the sustainable growth of Nippon Soda and improve its medium- to long-term value. If necessary, the company offers opportunities for communication with the Representative Director & President, directors in charge and/or executive officers.

Requests and opinions from investors and shareholders are conveyed to the Board of Directors and/or those concerned, as necessary, and reflected in business management.

Important corporate information is immediately reported to the President via the director in charge of public relations, who also serves as the information handling manager. Appropriate and immediate measures are taken, internally and externally, to address such information.

CSR activities

Nippon Soda's basic policy is to contribute to society through its business activities by effectively using the technologies, knowledge and human resources accumulated since its foundation. Based on this basic policy, we engage in CSR practices in order to maintain the trust of society we need to continue our business activities. At every stage of the product life cycle, from manufacturing to disposal, we promote responsible care (RC) activities in order to conduct business activities that take into account environmental protection, occupational safety, and product safety.

Compliance

Basic concept

Nippon Soda ensures corporate activities are undertaken in compliance with laws, regulations and corporate ethics by ensuring all employees are fully informed 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 operation 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 comprises the following sections:

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. Relationships with society	(1) Contribution to society	(2) Compliance with industry 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 import and export		
3. Relationships 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. Relationships with shareholders and investors	(1) Disclosure of management information	(2) Prohibition of insider trading	
5. Relationships with employees	(1) Respect for human rights and prohibition of discrimination	(2) Sexual harassment	(3) Protection of privacy
	(4) Safety and hygiene at worksites	(5) Compliance with labor laws	
6. Relationships 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		

Prevention of corrupt practices

The Nippon Soda Group Code of Conduct defines proper accounting, limitation of business entertainment and gifts, prevention of bribery of foreign public officials, and other issues related to the prevention of corrupt practices and bribery so as to ensure all employees are well informed of these issues.

Fair competition

The Nippon Soda Group Code of Conduct defines compliance with the Antimonopoly Act, the prevention of unfair competition, and other rules to prevent involvement in and assistance for anti-competitive activities so as to ensure all employees are well informed of these issues.

Compliance education

The requirements that allow the Nisso Group to conduct sound business activities are specified in the Nippon Soda Group Code of Conduct, which is distributed to the management teams and all employees of Nippon Soda and its consolidated companies. In addition, training based on the Code of Conduct to raise awareness of the importance of complying with laws and regulations is regularly provided.

A compliance survey is conducted among all employees once a year. In FY 2017, it was conducted during the period from December 6, 2016 to January 10, 2017. A total of 2,944 executive officers and full-time and temporary employees of Nippon Soda and group companies in Japan responded to the survey. Training on job-related laws and regulations is also provided at least once a year. In FY 2017, educational sessions on the Subcontract Act were held on June 22, July 19, October 28 and November 10 and those on the Antimonopoly Act on February 23 and February 27 in FY 2017. There were 151 participants in total.

Major educational sessions on compliance

Site	Date	Number of participants
1) New employee training at the Head Office (including mid-career hires)	April 5, 2016	20 Without any absentees
2) Chiba Plant and Research Center (including affiliate companies)	July 28 and 29, 2016 (six times in total)	185 Eight absentees
3) Nihongi Plant (including Joetsu Nisso Chemical Co., Ltd. and affiliate companies)	September 6 and 7, 2016 (eight times in total)	546 13 absentees
4) Nisso Construction Co., Ltd.	September 27, 2016	27 Without any absentees
5) Training for newly assigned managers at the Head Office	October 6, 2016	15 Without any absentees
6) Takaoka Plant (including affiliate companies)	October 18 and 19, 2016 (eight times in total)	490 10 absentees
7) Mizushima Plant (including affiliate companies)	October 27, 2016 (twice in total)	59 Without any absentees
8) Osaka Branch	October 28, 2016 (twice in total)	17 Five absentees
9) Training for newly assigned assistant managers at the Head Office	November 2, 2016	28 Without any absentees
10) Odawara Research Center Nisso Analysis Center	November 14 and 15, 2016 (four times in total)	201 Without any absentees
11) Haibara Field Research Center	November 18, 2016 (twice in total)	65 One absentee
12) Head Office NS Business Support Nisso Health Insurance Association	January 20 to February 22, 2017 (nine days in total during the above period)	266 Without any absentees
13) Nisso Green Co., Ltd.	March 6, 2017 (twice in total)	19

Education on laws and regulations related to chemicals and product safety

Nippon Soda provides educational and explanatory sessions on laws and regulations related to the management of chemicals on a regular basis.

Education for new and transferred employees

On April 22, 2016, we provided three new or transferred employees with training on how to prepare SDSs and education on issues related to the transportation of hazardous materials at the Head Office.

On May 12 and 13, 2016, we provided 20 new or transferred employees with education on chemical substance regulations and new chemical control regulations at the Head Office.

Chemical substance regulations in Thailand

On October 19, 21 and 24, 2016, explanatory sessions on chemical substance regulations in Thailand were held at the Head Office (five times with the same contents), attended by 11 members of relevant departments.

Explanatory sessions on standards for the management of poisonous and deleterious substances

On October 21, 24, 26 and 28 and November 4, 2016, explanatory sessions on important points of the Poisonous and Deleterious Substances Control Act, nonconformity, and management standards were held at the Head Office (five times with the same contents), attended by 46 members of relevant departments. Explanatory sessions on standards for the management of poisonous and deleterious substances and measures that need to be implemented at worksites were held at all the worksites as shown below:

Worksite	Date	Number of participants
Nihongi Plant	December 12, 2016	44
Mizushima Plant	December 19, 2016	9
Odawara Research Center	December 20, 2016	39
Haibara Field Research Center	January 12, 2017	15
Takaoka Plant	January 16, 2017	23
Chiba Research Center	January 19, 2017	20
Chiba Plant	January 19, 2017	3

Education on the Poisonous and Deleterious Substances Control Act

On December 1, 2016, an educational meeting was held for 11 members of the Agro Products Division of the Head Office on important points of the Poisonous and Deleterious Substances Control Act and some parts of the standards for the management of poisonous and deleterious substances that were changed in the last one year.

Explanatory session on revision of laws and regulations

An explanatory session on revision of laws and regulations was held for members of relevant departments, four plants (Nihongi, Takaoka, Mizushima and Chiba) and two research centers (Odawara and Chiba). A total of 82 employees participated.

Contents: Revisions of laws and regulations, including the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Act, the Poisonous and Deleterious Substances Control Act, the Fire Service Act, the Regulations for the Carriage and Storage of Dangerous Goods in Ship, and the Civil Aeronautics Act; overseas trends in revisions to laws and regulations; and other issues

Dates: February 15, 17 and 20, 2017
Target audience: Employees at the Head Office
Participants: 34 members of relevant departments

Dates: February 22, 23 and 24, 2017 (webinar)
Target audience: Employees at the Head Office, four plants and two research centers
Participants: 48

Proper management of personal information

In response to the adoption of the My Number system in January 2016, Nippon Soda developed the Basic Policy for Proper Handling of Specific Personal Information and the Specific Personal Information Handling Regulations to ensure the proper handling of personal information as an organization.

We collect, use, store and handle individual numbers (My Numbers) of executives, employees and their dependents in an appropriate manner, in compliance with laws and regulations related to the handling of personal information and individual numbers, and within the scope of use specified in the basic policy and handling regulations.

A fine exceeding the reasonable amount against the violation of laws and regulations related to the provision or use of products and services

No relevant events were reported.

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 director in charge of information systems.

We have developed internal rules, including our policy on information security, and included issues related to the appropriate use of information systems in the Nippon Soda Group Code of Conduct. These efforts are aimed at raising awareness of the importance of information assets among all executives and employees of the Group.

In September 2016, we conducted a drill on suspicious emails to prepare our employees in how to act to prevent viruses from infecting our computers. This was the first drill of its kind for Nippon Soda.

Nippon Soda will continue to conduct drills to prevent computer infections. Group companies will also be encouraged to take similar measures in order to strengthen the information security management system of the entire Nippon Soda Group.

Nihongi Plant

950, Fujisawa, Nakago-ku, Joetsu, Niigata 949-2392
Tel: +81-255-81-2300 Fax: +81-255-81-2341

Major products manufactured: Caustic potash, alcoholate, HPC, Faropenem sodium, Mospilan, Nissorun, Hi-chlon, HIDION, etc.
Number of employees: 321 (as of the end of March 2017) (Including 70 contract employees, reemployed employees and Joetsu Nisso Chemical's employees)
Number of employees of affiliates: 173 (as of the end of March 2017)
ISO 14001: Certified in March 2000
ISO 9001: Certified in August 1995
OHSAS 18001: Certified in April 2009

Akira Kaneko
Executive Officer
Plant Manager

Achieving zero accidents and disasters, and improving the performance of CSR activities

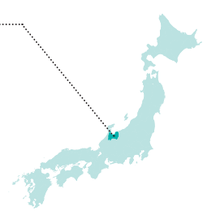
Nihongi Plant is the birthplace of Nisso. The plant operation started 97 years ago amid the rich natural environment at the base of Mount Myoko, one of the "100 famous Japanese mountains." Until now, we have continued our operation while considering the natural environment and gained the understanding and support of local communities and stakeholders through various exchange programs. Recently, we participated in a project to create a new community, in response to the launch of the Hokuriku Shinkansen line and Echigo Tokimeki railway.

As in previous years, concerted efforts by all employees will be made to achieve the goals of CSR activities, as we conduct business activities that give consideration to safety and health, environmental conservation and quality assurance in our effort to contribute toward the realization of a vibrant society. We are also striving to be a plant that is trusted not only by everyone working at the plant but also by local residents. To achieve this, the key goals raised in our plant's policies are to achieve zero accidents and disasters and to enhance our performance in CSR activities. We focused particular attention this year on identifying potential risks and taking countermeasures against those risks, and implemented initiatives to prevent problems before they happen through 4M management of change, utilization of risk assessment, and preventative maintenance.

Our company and plant will celebrate its 100th anniversary in 2020. Just as we have made tremendous progress over the last century, we will continue to advance over the next 100 years.

Takaoka Plant

300 Mukaino-honmachi, Takaoka, Toyama 933-8507
Tel: +81-766-26-0206 Fax: +81-766-26-0300



Major products manufactured: Caustic soda, hydrochloric acid, TODI, phosphorous chloride, organic titanium, Topsin M, Trifmine, pesticide formulation products, etc.
Number of employees: 340 (as of the end of March 2017) (Including 16 employees of Nisso BASF Agro Co., Ltd., a manufacturing joint venture)
Number of employees of affiliates: 179 (as of the end of March 2017)
ISO 14001: Certified in November 2000
ISO 9001: Certified in June 1995
OHSAS 18001: Certified in November 2005

Izumi Takano
Executive Officer
Plant Manager

Future development based on proposals made by the plant, with the highest priority on achieving zero accidents and disasters

Takaoka Plant is located beside the Oyabe river, which runs into the sea at Toyama Bay, an area endowed with a rich natural environment. The plant has a history and tradition of cooperation with residents in adjacent communities going back to its foundation in 1934. This year, we celebrate the plant's 82nd birthday. We have an important mission to ensure the safety and security of the local communities and of the environment of Toyama Bay, which is recognized as one of the most beautiful bays in the world.

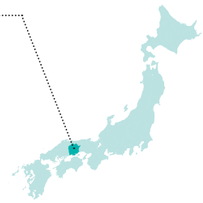
With a focus on soda electrolysis technology, which is the basis of the chemical industry, we manufacture basic chemicals and other chemical products essential to modern society, such as functional chemicals and agrochemicals. As part of these business operations, we have been working on environmental conservation activities, such as reducing environmental impact by recycling industrial waste and lowering energy consumption by renovating plant facilities that consume large amounts of electricity, as well as on activities for safety and disaster prevention, such as renovating aging facilities and large tanks.

In accordance with this year's plant motto of "Value up TAKAOKA," we are providing safety education, conducting emergency drills, implementing energy saving measures, and recycling industrial waste with the aim of improving the value contributed by all people and goods at the plant.

We also make broad-ranging efforts to solicit feedback from local residents and reflect those opinions in improving our CSR activities to ensure our plant remains both safe and trusted, as well as encourage our stakeholders to recognize our contribution to local communities and society.

Mizushima Plant

2767-12 Kojima-shionasu, Kurashiki, Okayama 711-0934
Tel: +81-86-475-0036 Fax: +81-86-475-0039



Major products manufactured: Sodium cyanide, potassium cyanide, diaminomaleonitrile (DAMN)
Number of employees: 54 (as of the end of March 2017)
Number of employees of affiliates: 22 (as of the end of March 2017)
ISO 14001: Certified in October 2001
ISO 9001: Certified in January 1999
OHSAS 18001: Certified in January 2009

Teruo Tachibana
Plant Manager

Plant recognized by society for its safe and stable operation

Mizushima Plant started its operation in 1969 in the Mizushima Industrial Area, which extends from the mouth of the Takahashi river in Okayama Prefecture and has access to abundant supplies of industrial water, oil and electricity while being conveniently located for land and sea transportation. In its early days, the plant was supplied with raw materials from neighboring companies. Keenly aware of the highly toxic cyanide the plant uses in its production activities, all employees working at the plant, including those of affiliate companies, engage in CSR activities in compliance with requirements, including with regard to handling ingredients and products, wearing protect clothing correctly, and performing safe operations. Since FY 2006, we have been engaged in the Mission Visualization (MV) project. The objective of the project is to visualize and share information on CSR activities among all plant personnel with the goal of improvement. In these activities, we apply a cooperative employee-driven approach rather than a top-down approach. Information on the state, progress and results of activities is provided throughout the plant by placing MV materials in highly visible locations and holding a presentation meeting. This is a very favorable project and we will continue it.

In the last fiscal year, our employees and affiliate companies achieved "zero accidents and zero disasters." Of particular note, we achieved a total number of consecutive days without an accident causing an employee's absence from work of 8,912 days (as of the end of March 2017). With regard to environmental safety, we have achieved "no environmental abnormalities." We will continue our efforts to be recognized for our safe, stable and problem-free production activities by society.

Chiba Plant

12-8 Goiminami-kaigan, Ichihara, Chiba 290-8530
Tel: +81-436-23-2007 Fax: +81-436-22-6588

Major products manufactured: POLYBUTADIENE, VP Polymer, Titabond, D-90, Take-One
Number of employees: 119 (as of the end of March 2017)
Number of employees of affiliates: 71 (as of the end of March 2017)
ISO 14001: Certified in July 2000
ISO 9001: Certified in August 1997
OHSAS 18001: Certified in February 2008

Atsuo Watanabe
Executive Officer
Plant Manager

Well-planned PDCA cycle to ensure safety and security in the future

Chiba Plant is located in the Keiyo Coastal Industrial Complex. Among the array of big plants belonging to large chemical manufacturers, our plant is relatively small.

Chiba Plant focuses on the implementation of a "well-planned PDCA cycle." The PDCA cycle is an indispensable system for ensuring plant safety. We have been focusing on enhancing the quality of the "Plan" phase and improving the effects of the "Do" part of the cycle. If every employee makes it a habit to deepen his or her thinking, we can achieve higher safety levels.

Humans play a critical role in ensuring safety. For example, it is humans that incorporate safety mechanisms into the plant at the design stage. It is also humans who developed the mechanisms for automation and who operate the plant using those mechanisms. Efforts will be made to improve individual abilities and enhance the level of the entire plant, thereby paving the way for the plant to move toward an even brighter future.

While the scale of our plant is small, we will continue making products that add value to people's lives and emphasize maintaining close relationships with local residents. Through these efforts, we will make our plant much safer.

Nihongi Plant

Actual environment data in FY 2017

Unit: t/year (amount of discharged water: 1,000 t/year; CO_2: 10,000 t/year)
Values in ( ) are differences from the previous year

Emissions to water			Emissions to air				Final disposal as landfill
Amount of discharged water	BOD	COD	CO_2	NO_X	SO_X	Soot and dust	
7,896 (▲148)	15.2 (▲0.5)	—	7.0 (+0.9)	26.5 (+10.1)	5.9 (0)	8.5 (+2.3)	63.0 (+16.4)

Emissions of PRTR-designated substances in FY 2017

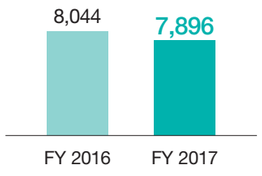
Values in ( ) are differences from the previous year

Substance name	Amount emission		Amount transferred
	Air	Water	
Toluene	21.97 (+0.40)	0.00 (0.00)	0.00 (0.00)
Fluorine	0.00 (0.00)	0.00 (0.00)	1.95 (▲0.58)
Chloroform	1.24 (▲1.49)	0.00 (0.00)	0.00 (0.00)
Designated substances: 14 substances Total emissions: 23.49 t Total amount transferred: 1.95 t			

Amount of boron is now less than 1 ton due to reduced production of products using it, and is thus exempt from the report. (Applicable substances: From 15 to 14)

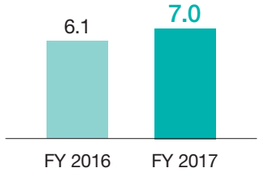
■Emissions to water (1,000 t)

Amount of discharged water

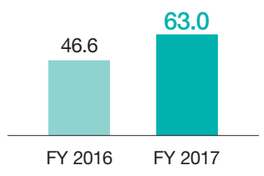


■Emissions to air (10,000 t)

CO_2



■Final disposal as landfill (t)



Takaoka Plant

Actual environment data in FY 2017

Unit: t/year (amount of discharged water: 1,000 t/year; CO_2: 10,000 t/year)
Values in ( ) are differences from the previous year

Emissions to water			Emissions to air				Final disposal as landfill
Amount of discharged water	BOD	COD	CO_2	NO_X	SO_X	Soot and dust	
8,797 (+303)	57.6 (+3.1)	—	11.7 (▲0.3)	29.6 (+3.0)	102.0 (+24.0)	1.8 (0)	166.0 (▲6.0)

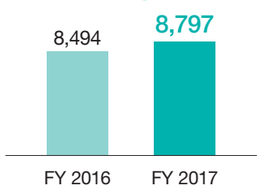
Emissions of PRTR-designated substances in FY 2017

Values in ( ) are differences from the previous year

Substance name	Amount emission		Amount transferred
	Air	Water	
Toluene	0.21 (▲0.03)	0.00 (0.00)	39.81 (▲7.88)
Chlorobenzene	12.52 (▲0.07)	1.84 (+0.10)	1.62 (+0.09)
Chloroform	0.23 (+0.03)	0.01 (0.00)	102.019 (+4.52)
Designated substances: 18 substances Total emissions: 17.03 t Total amount transferred: 154.58 t			

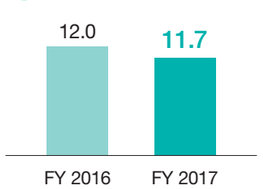
■Emissions to water (1,000 t)

Amount of discharged water

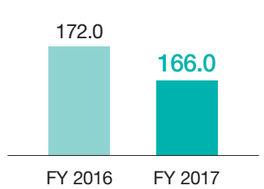


■Emissions to air (10,000 t)

CO_2



■Final disposal as landfill (t)



Mizushima Plant

Actual environment data in FY 2017

Unit: t/year (amount of discharged water: 1,000 t/year; CO_2: 10,000 t/year)
Values in ( ) are differences from the previous year

Emissions to water			Emissions to air				Final disposal as landfill
Amount of discharged water	BOD	COD	CO_2	NO_X	SO_X	Soot and dust	
502 (▲30)	—	2.0 (▲0.1)	1.0 (▲0.1)	5.5 (+2.5)	0.0 (0)	0.0 (0)	10.5 (+3.8)

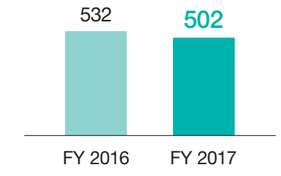
Emissions of PRTR-designated substances in FY 2017

Values in ( ) are differences from the previous year

Substance name	Amount emission		Amount transferred
	Air	Water	
Inorganic cyanides	0.12 (▲0.05)	0.003 (▲0.001)	0.01 (▲0.01)
Acetonitrile	0.00 (0.00)	0.00 (0.00)	0.16 (▲4.23)
Xylene	0.00 (0.00)	0.00 (0.00)	0.015 (▲0.57)
Designated substances: 4 substances Total emissions: 0.12 t Total amount transferred: 0.18 t			

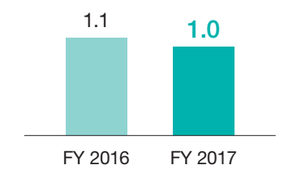
■Emissions to water (1,000 t)

Amount of discharged water

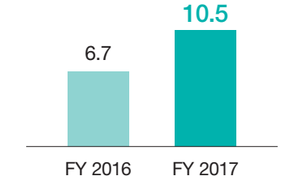


■Emissions to air (10,000 t)

CO_2



■Final disposal as landfill (t)



Chiba Plant

Actual environment data in FY 2017

Unit: t/year (amount of discharged water: 1,000 t/year; CO_2: 10,000 t/year)
Values in ( ) are differences from the previous year

Emissions to water			Emissions to air				Final disposal as landfill
Amount of discharged water	BOD	COD	CO_2	NO_X	SO_X	Soot and dust	
1,599 (▲84)	—	11.8 (0)	1.6 (▲0.1)	*—	*—	*—	3.5 (▲1.0)

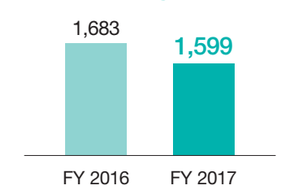
Emissions of PRTR-designated substances in FY 2017

Values in ( ) are differences from the previous year

Substance name	Amount emission		Amount transferred
	Air	Water	
Toluene	10.27 (+0.39)	0.00 (0)	6.02 (+5.39)
n-hexane	4.29 (▲0.41)	0.00 (0)	0.00 (0)
1,3-butadiene	3.11 (▲0.35)	0.00 (0)	0.00 (0)
Designated substances: 11 substances Total emissions: 18.30 t Total amount transferred: 53.69 t			

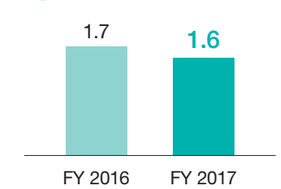
■Emissions to water (1,000 t)

Amount of discharged water

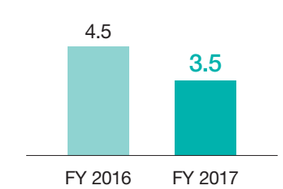


■Emissions to air (10,000 t)

CO_2



■Final disposal as landfill (t)



Feature Article on Group Company's CSR Activities

Nisso Namhae Agro Co., Ltd.

Nisso Namhae Agro Co., Ltd. was jointly established by Nippon Soda, Namhae Chemical Co., Ltd. (the top fertilizer manufacturer in S. Korea) and Mitsubishi Corporation to manufacture the active ingredient for Topsin M (a fungicide).

Profile

Yeosu Head Office: 1384, Yeosusandan-ro, Yeosu-si, Jeollanam-do, 59618, S. Korea
Seoul Office: 18th Fl, Namsan Square Bldg, 173, Toegye-ro, Jung-gu, Seoul, 04554, S. Korea

Since April 2017, CSR activities have been implemented throughout the company.
With primary priority on "zero accidents and zero disasters," we maintain and improve **safety**, the **environment** and **quality** as a manufacturing company of the Nippon Soda Group.

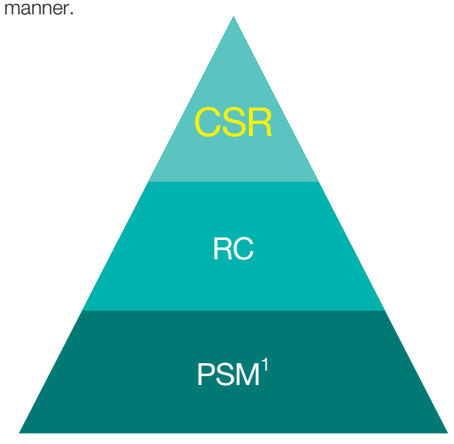
Safety assurance
Improvement of PSM Grade[1]

Efforts to protect the environment
Promotion of RC activities

Efforts to ensure quality

CSR activities of Nisso Namhae Agro

We address regulatory issues in South Korea and identify systems that suit local requirements. Through these efforts, we expand CSR activities of the Nippon Soda Group across the company in a stepwise manner.



Adoption of CSR activities

[Preparation for adoption] Efforts in FY 2017

- We participated in CSR subcommittee meetings held at the Head Office of Nippon Soda as an observer to better understand the Nippon Soda Group's CSR activities.
- We received CSR training mainly on RC activities at manufacturing plants in Japan.

[Full-scale adoption] Goals for FY 2018

- We will share the Nippon Soda Group Code of Conduct throughout the company.
  We will participate in a questionnaire on compliance targeting all group companies.
- Safety: Efforts will be made to improve the PSM Grade from M+ to S.
- Environment: Exhaust gas combustion facilities will be adopted to ensure environmental protection.
- Quality: A joint meeting with Takaoka Plant on analytical techniques will be organized to improve skills of analysts.

1. The Process Safety Management (PSM) System is a system based on the Korea Occupational Safety and Health Act. It requires offices with hazardous or dangerous facilities to prepare and submit process safety reports that describe details of promotional activities that are required to ensure PSM, and to undergo an assessment of the appropriateness of safety and other management efforts. Its objective is to prevent serious industrial accidents (defined by an Executive Order in S. Korea) caused by hazardous material spills, fires or explosions that could cause injury to workers in offices and neighboring areas. This is a four-step grading system, from P, S, M+ to M–.

Manufacturing group company

Nisso Metallochemical Co., Ltd.

3-1-2 Ueno, Taito-ku, Tokyo 110-0005 (Akihabara Shinko Daiichi-seimei Building)
URL: http://www.nmcc.co.jp/
Aizu Plant: 1372 Oaza-Bandai, Bandai-machi, Yama-gun, Fukushima 969-3393
Chiba Plant: 12-32 Goiminami-kaigan, Ichihara, Chiba 290-0045

■ Business overview
We are committed to meeting customer needs with a focus on the following three business areas: environmental development, non-ferrous metals, and industrial chemicals.

■ Number of employees: 109 (as of the end of March 2017)
■ Net sales: 7,186 million yen (FY 2017)

Nisso Fine Co., Ltd.

3-3-6 Honcho, Nihonbashi, Chuo-ku, Tokyo 103-8422 (Wakamatsu Building 2F)
URL: http://www.nissofine.co.jp/
Isohara Plant: 1309-2 Isohara, Isohara-cho, Kitaibaraki, Ibaraki 319-1541
Iwaki Manufacturing Department:1-6 Yoshima-kogyodanchi, Iwaki, Fukushima 970-1144
Koriyama Plant: 1-176 Sasagawa, Koriyama, Fukushima 963-0108
Onahama Plant: 41-26 Yanagi-machi, Onahama-noda, Iwaki, Fukushima 971-8126

■ Business overview
We are engaged in the contract manufacturing and marketing of functional dyes, functional resins, pharmaceuticals, and agricultural chemicals and their intermediates as well as the manufacturing, processing and marketing of synthetic resin molded products, deoxidizers and high-function desiccants.

■ Number of employees: 210 (as of the end of March 2017)
■ Net sales: 8,718 million yen (FY 2017)

Shinfuji Kaseiyaku Co., Ltd.

Head Office/Plant (Gunma Plant):
313 Koyagi-machi, Takasaki, Gunma 370-0071 (located in the Takasaki Oyagi Kogyo Danchi)
URL: http://www.shinfuji-kaseiyaku.co.jp/
Takasaki Plant: 888 Oyagimachi, Takasaki, Gunma 370-0072 (located in the Takasaki Oyagi Kogyo Danchi)

■ Business overview
Our business mainly consists of two areas: the contract manufacturing of agrochemical products, such as smoking agents, water-dispersible granules, water-dispersible powder and spraying agents; and the manufacture, processing, small-size packaging and packaging of general industrial chemicals.

■ Number of employees: 79 (as of the end of March 2017)
■ Net sales: 1,174 million yen (FY 2017)

ALKALINE SAS

MSSA SAS
111, Rue de la Volta, Pomblière-73600 Saint-Marcel-France
http://www.metauxspeciaux.fr/

■ Business overview
We are engaged in the manufacture and marketing of metallic sodium, chlorine, vanadium chloride, sodium oxide and alkali metals. Being certified with ISO 14001, we give proper consideration to resource and energy efficiency and to environmental protection.

■ Number of employees: 289 (as of the end of December 2016)
■ Net sales: 78.756 million EUR (2016)

Nisso Namhae Agro Co., Ltd.

Yeosu Head Office:
1384, Yeosusandan-ro, Yeosu-si, Jeollanam-do, 59618, S. Korea
Seoul Office:
18th Fl, Namsan Square Bldg, 173, Toegye-ro, Jung-gu, Seoul, 04554, S. Korea

■ Business overview
Nisso Namhae Agro Co., Ltd. was jointly established by Nippon Soda, Namhae Chemical Co., Ltd. (the top fertilizer manufacturer in S. Korea) and Mitsubishi Corporation to manufacture the active ingredient for Topsin M (a fungicide). This is the first overseas manufacturing company established by Nippon Soda using its proprietary manufacturing technology. Full-scale manufacturing was started in fiscal 2014 and manufactured products are provided by Nippon Soda to customers around the world.

■ Number of employees: 30 (as of the end of March 2017)
■ Net sales: 30,511 million won (FY 2017)

Joetsu Nisso Chemical Co., Ltd.

Head Office/Plant:
950 Fujisawa, Nakago-ku, Joetsu, Niigata 949-2302 (within Nihongi Plant)

■ Business overview
Joetsu Nisso Chemical Co., Ltd., an independent contract manufacturing company partially spun-off from the Manufacturing Department of Nihongi Plant, manufactures chemical industrial products such as caustic potash, chlorine and chlorine products.
Our operation is integrated with the operation of Nihongi Plant. For our CSR activities, please refer to the CSR Activity Report of Nihongi Plant.

■ Established: December 1, 2006

Non-manufacturing group company

Nisso Shoji Co., Ltd.

3-3-6 Nihonbashi-Honcho, Chuo-ku, Tokyo 103-8422 (Wakamatsu Building)
URL http://www.nissoshoji.com/
Osaka Branch: Nagoya Sales Department

■ Business overview
Over the last 70 some years, we have developed our global business in a wide variety of areas, mainly involving chemicals such as resins, industrial equipment and building materials.

■ Number of employees: 159 (as of the end of March 2017)
■ Net sales: 37,437 million yen (FY 2017)

Sanwa Soko Co., Ltd.

2-4-1 Shibakoen, Minato-ku, Tokyo 105-0011 (Shiba Park Building B 4F)
URL http://www.sanwasoko.co.jp/
Osaka Branch: Yokohama Office

■ Business overview
Based on the principles of safety, quality and environmental protection, we provide comprehensive distribution systems suitable for hazardous, poisonous and deleterious substances and pharmaceuticals using our high-function distribution facilities and highly advanced expertise. Through these business activities, we are committed to ensuring sustainable profits and improving our corporate value.

■ Number of employees: 216 (as of the end of March 2017)
■ Net sales: 5,590 million yen (FY 2017)

Nisso Engineering Co., Ltd.

1-6-1 Kanda Jinbo-cho, Chiyoda-ku, Tokyo 101-0051 (Takii Tokyo Building)
URL http://www.nisso-eng.co.jp/
Osaka Branch: Technology Development Research Center

■ Business overview
We provide engineering services ranging from construction of various kinds of plants and selection of systems and equipment to post-delivery maintenance and energy saving. We have our own research facilities and diverse expertise, with which we can meet the needs of a variety of customers.

■ Number of employees: 148 (as of the end of March 2017)
■ Net sales: 11,224 million yen (FY 2017)

Nisso Kensetsu Co., Ltd.

1070-3 Fujisawa, Nakago-ku, Joetsu, Niigata 949-2302
URL http://www.nissokensetu.co.jp/

■ Business overview
Based on our experience as a Nippon Soda Group company engaged in civil engineering, architectural design and construction, we are engaged in the design and construction of private and public works as well as Nippon Soda Group projects mainly in Niigata's Joetsu region. We meet customer needs based on our extensive construction-related experience, ranging from facilities for factories, other buildings and stores to housing facilities.

■ Number of employees: 26 (as of the end of March 2017)
■ Net sales: 2,632 million yen (FY 2017)

Nisso Green Co., Ltd.

3-1-2 Ueno, Taito-ku, Tokyo 110-0005 (Akihabara Shinko Daiichi-seimei Building 5F)
URL http://www.ns-green.com/

■ Business overview
Nisso Green Co., Ltd. sells and markets mainly agrochemicals for golf courses, home garden and forest in Japan. Nisso Green Co., Ltd. is especially a strong position for herbicides business for the golf course market.

■ Number of employees: 22 (as of the end of March 2017)
■ Net sales: 1,869 million yen (FY 2017)

NISSO AMERICA INC.

Wall Street Plaza, 88 Pine Street, 14th Floor, New York, NY 10005 USA
URL: http://www.nissoamerica.com/

■ Business overview
Established in 1986 in the U.S. City of New York, NISSO AMERICA INC. is engaged in marketing, importing and exporting, advertising, selling and registering Nippon Soda's agrochemical products and chemicals in the United States and Canada.

■ Number of employees: 11 (as of the end of March 2017)
■ Net sales: 35.9 million USD (FY 2017)

NISSO CHEMICAL EUROPE GmbH

Berliner Allee 42, 40212 Düsseldorf, Germany
URL http://nisso-chem.de/

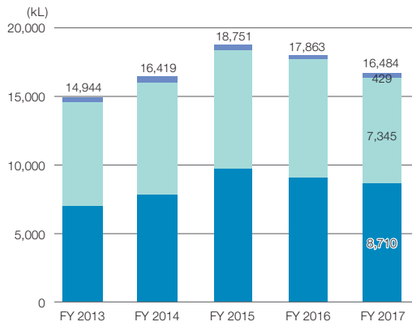
■ Business overview
Located in Düsseldorf, Germany, NISSO CHEMICAL EUROPE mainly sells products made by Nippon Soda. Two major categories of products the company deals in are agrochemicals and chemicals. Agrochemical products are formulated and registered in EU countries.

■ Number of employees: 16 (as of the end of March 2017)
■ Net sales: 80.709 million EUR (FY 2017)

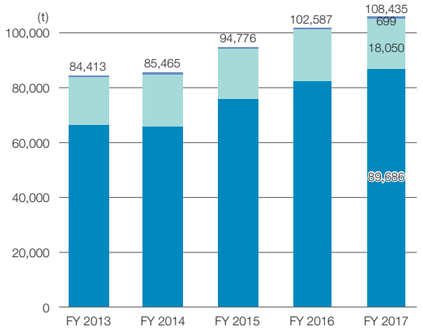
Manufacturing group company

■ Nisso Metallochemical Co., Ltd. ■ Nisso Fine Co., Ltd. ■ Shinfuji Kaseiyaku Co., Ltd.

Change in energy consumption (in crude oil equivalent)

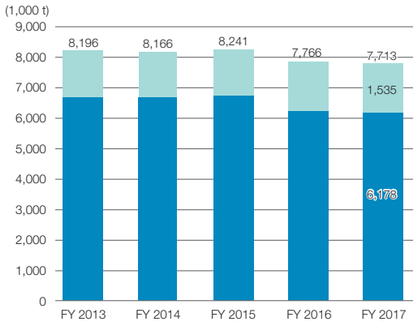


Change in the amount of carbon dioxide emissions

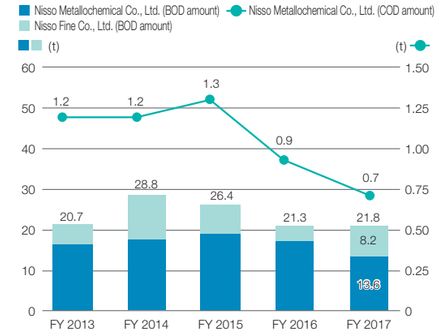


Note: The increase in CO_2 emissions was due to an increase in industrial waste oil received by Aizu Plant of Nisso Metallochemical Co., Ltd. under a contract.

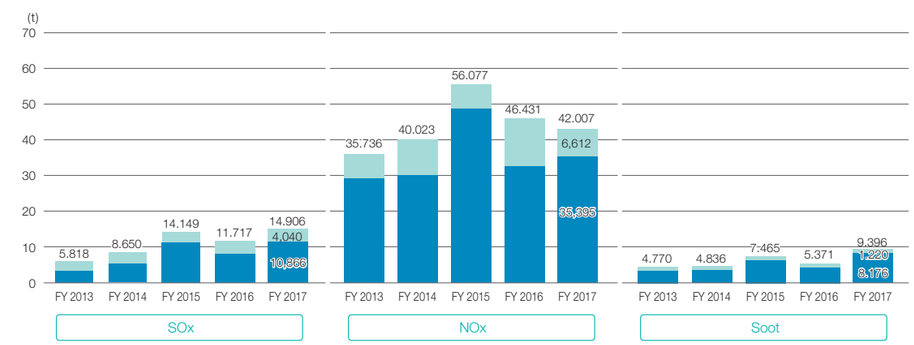
Change in the total volume of discharged water



BOD & COD of wastewater of manufacturing group companies



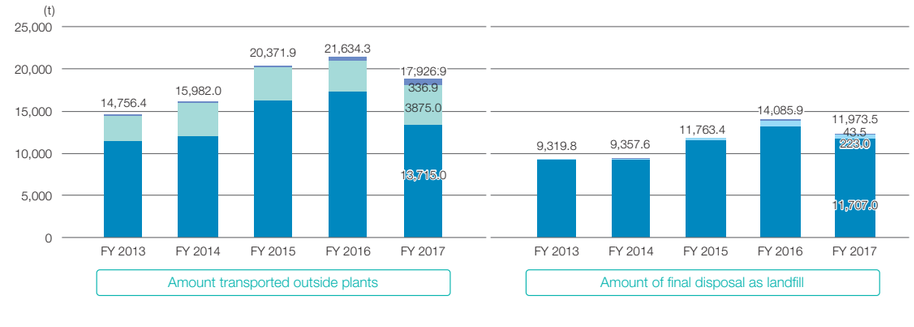
Change in the amount of emissions of substances controlled by the Air Pollution Control Act



Manufacturing group company

■ Nisso Metallochemical Co., Ltd. ■ Nisso Fine Co., Ltd. ■ Shinfuji Kaseiyaku Co., Ltd.

Change in the amount of industrial waste emissions



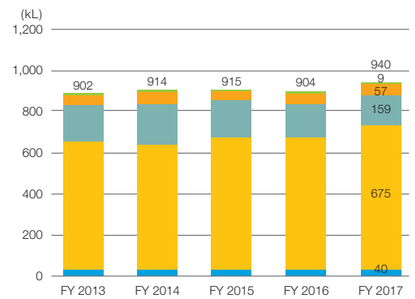
Overseas manufacturing group companies

(FY)		2013	2014	2015	2016	2017
Alkaline SAS (MSSA) (France)	Energy consumption (MWh)	253,216	261,886	251,968	277,814	271,004
	Total amount of wastewater (1,000 t)	287.34	277.49	261.85	253.03	235.79
Nisso Namhae Agro Co., Ltd. (Korea)	Energy consumption (in crude oil equivalent) (kL)	—	2,335.23	1,980.93	2,046.18	2,040.68
	Carbon dioxide emissions (1,000 t)	—	4.70	3.96	4.09	4.07
	Total amount of wastewater (1,000 t)	—	125.13	115.89	103.98	98.48

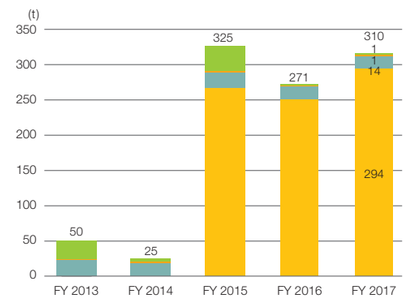
Non-manufacturing group companies

■ Nisso Shoji Co., Ltd. ■ Sanwa Soko Co., Ltd. ■ Nisso Engineering Co., Ltd.
■ Nisso Kensetsu Co., Ltd. ■ Nisso Green Co., Ltd.

Change in energy consumption (in crude oil equivalent)



Change in the amount of industrial waste emissions



Note: The amount of waste generated at Nisso Shoji Co., Ltd. is not included.
The amount generated at Sanwa Soko Co., Ltd. is only included in the tabulation for fiscal 2015.

Measures taken to address violations of laws and regulations

(Nippon Soda)

June 1 Nihongi Plant: Violation of the wastewater agreement: The concentration of fluorine of 8.1 mg/L in wastewater, which exceeded the standard fluorine content of 8.0 mg/L. Measures to prevent a recurrence have been taken.
September 20 Nihongi Plant: A past failure to report a change in specific high-pressure gas consumption equipment was discovered when making a recent change in the equipment. We reported the past change and the report was accepted.
November 16 Chiba Plant: The plant received two corrective action requests issued by the Chiba Labor Standards Inspection Office and is implementing improvement measures.
March 22 Odawara Research Center: The Research Center received one corrective action request issued by the Odawara Labor Standards Inspection Office and is implementing improvement measures.

(Group Companies)

April 2 Aizu Plant of Nisso Metallochemical Co., Ltd.: While treating industrial waste in a metal barrel received from a customer using heavy equipment, combustible gas from the industrial waste ignited, damaging part of the building and ceiling. There were no human casualties and no impacts beyond the plant premises. Measures to prevent a recurrence have been taken and necessary administrative procedures have been completed.
October 5 Aizu Plant of Nisso Metallochemical Co., Ltd.: The plant received two corrective action requests issued by the Aizu Labor Standards Inspection Office and improvement measures have been implemented.

Japan Chemical Industry Association

Third Party Verification Report on Nippon Soda Group CSR Report 2017

Responsible Care®

Nippon Soda Group CSR Report 2017 Third Party Verification Report

June 26, 2017

To Akira Ishii
Representative Director and President
Nippon Soda Co., Ltd.

■Objectives of Verification

The Responsible Care Report Verification was conducted by the Responsible Care Verification Center to verify the Nippon Soda Group CSR Report 2017 (hereinafter referred to as the "CSR Report") prepared by Nippon Soda Co., Ltd. and to present the views and comments of experts in the chemical industry on the following matters:

1) The reasonableness of the methods used to calculate and aggregate performance indicators (numerical values), and the accuracy of numerical values
2) The accuracy of reported information other than numerical values
3) Assessment of Responsible Care" activities
4) Characteristics of the report

■Verification Procedures

- At the Head Office, the reasonableness of methods to aggregate numerical values reported from each site (office, plant) and the accuracy of reported information other than numerical values were assessed through interviews with managers responsible for each task and those who were responsible for the preparation of the reports based on materials and explanations provided by those managers.
- At Nihongi Plant, the reasonableness of the method used to calculate numerical values and the accuracy of numerical values and the information described in reports submitted to the Head Office were assessed. The assessment was made through interviews with managers responsible for each task and those who were responsible for the preparation of the reports, based on materials and explanations provided, and by checking evidence.
- Numerical values and information provided in the report were verified by sampling.

■Views and Comments

1) The reasonableness of the methods used to calculate and aggregate performance indicators (numerical values), and the accuracy of numerical values
   - Both the Head Office and Nihongi Plant applied rational methods to calculate and aggregate numerical values.
   - Within the scope of the assessment, the values were accurately calculated and aggregated.
   - Issues that need to be addressed included inconsistencies in the formats used for the calculation and aggregation of some numerical values by the Head Office and the Plant. To address these inconsistencies, you are considering systematizing these methods. It is hoped that a new system will be developed and implemented at the earliest possible time.
2) The accuracy of information other than numerical values
   - It was confirmed that the information described in the reports was accurate. At the draft stage, we pointed out some parts that needed to be improved in terms of the appropriateness of descriptions or the understandability of sentences. In this report, however, these points have been edited and there are no parts that need to be corrected.
3) Assessment of Responsible Care activities and CSR activities
   - You are promoting "CSR activities to protect corporate value" and "CSR activities to improve corporate value." In CSR activities to protect corporate value with emphasis on Responsible Care activities, we value your efforts to promote activities for minimizing negative impacts on safety, the environment, and quality mainly through initiatives in eight categories, including environmental protection, process safety & disaster prevention/BCP, and chemicals and product safety.
   - We commend the following achievements made in FY2017 in safety, reduction of risks of major accidents at facilities, and maintenance and improvement of the BCP; in environment, reduction of serious environmental abnormalities and waste; and in quality, reduction of product-related and distribution-related complaints through the implementation of quality risk assessment.
   - While the reported number of incidents associated with occupational safety and health and quality has declined, many of them were caused due to human error. We appreciate your ongoing efforts to prevent such human error. It is expected that these efforts will see successful results.
4) Characteristics of the report
   - In the section on the Nippon Soda Group's Business and CSR (pp. 11 and 12), the basic concept of CSR is described. In the section on the new medium-term business plan (FY2018-2020), a detailed explanation of the balanced implementation between CSR activities to protect corporate value and CSR activities to improve corporate value is provided.

Junji Takase
Junji Takase
Chief Director, Responsible Care Verification Center
Japan Chemical Industry Association

SOMPO Risk Management & Health Care Inc.

Opinion on Property Conservation Survey

March 14, 2017
Akira Ishii
Representative Director and President
Nippon Soda Co., Ltd.

Written Opinion on Property Conservation Survey

Dear Mr. Ishii,

Below is a brief summary and our opinion on the property conservation survey.

The objective of a property conservation survey is to provide recommendations for improvement that are aimed to help enhance each facility's voluntary disaster prevention level. The recommendations are based on on-site surveys and interviews from 6 viewpoints, including fire risk and disaster prevention equipment.

The survey was conducted from the following 6 viewpoints: surrounding environment, building construction, fire risks, disaster prevention equipment, fire prevention management and natural disasters. Follow-up on status of previous survey recommendations was also conducted during this survey.

Survey schedule and surveyed property for FY2016

Chiba Plant	DC Unit, Manufacturing 2nd Section	2016/6/3
Mizushima Plant	Plant No.1 and Plant No.2	2016/9/8-9
Takaoka Plant	Industrial Chemicals Group, Organic 1st Group	2016/9/29-30
Nihongi Plant	HPC Unit, Joetsu Nisso Chemical Inorganic Unit	2016/11/17-18
Nisso Metal Chemical, Aizu Plant	Environment 2nd Group, BPS Group	2016/5/26-27
Nisso Fine, Isohara Plant	Isohara Plant No.1 and Isohara Plant No.2	2016/6/23-24

■Survey Comments

Overall

- We value that the company has given considerations to the environment, health and safety throughout its production cycle from development, manufacture, distribution, use and disposal of various chemical substances, as well as its efforts on achieving further improvement in the next fiscal year.
- We value the company's high security disaster prevention awareness in its formulation of a multi-year implementation plan that covers all aspects within the group instead of a single year plan.

Good practices and improvement recommendations for each location is as follow:

1. 【Nippon Soda, Chiba Plant】 We value the Plant's efforts in reducing fire risk from electrostatic sparks by grounding pipes for combustible powder and low concentration alcohol. In addition sufficient number of sandbags is provided throughout the premises to cope of accidental leakage of hazardous materials and poisonous substances. For processes exposed to risk of dust explosion, it is recommended to use conductive flexible piping.
2. 【Nippon Soda, Mizushima Plant】 We value that the Plant has taken measures against accidental leakage by installing water discharge equipment at the fractionator and providing an anemoscope at the top of the plant equipment for confirming wind direction at the instrument room in the event of a leakage. At the same time, some of the fire extinguishing equipment cabinets doors were found to be difficult to close/cannot be closed, thus it is recommended to restore these cabinets.
3. 【Nippon Soda, Takaoka Plant】 We value the Plant's measures of installing water discharge equipment inside ducts to prevent duct fire and providing CO_2 extinguishing equipment at the bag filter. It is recommended that alarm level and maximum allowable concentration be posted near the gas detectors.
4. 【Nippon Soda, Nihongi Plant】 We value the Plant's risk reduction measures including providing gas detectors at 6 production zone, 24 hour monitoring at the instrument room and earth bonding to sorting pipes that are exposed to risk of dust explosion. It is recommended that fire extinguishers be provided to all floors of each building to allow prompt response in the event of a fire.
5. 【Nisso Metal Chemical, Aizu Plant】 We value that oxygen concentration meter and carbon dioxide concentration meters are installed near the incinerator to allow monitoring and control of combustion at the control room. It is recommended to provide grounding to piping of low concentration methanol storage tank as well.
6. 【Nisso Fine, Isohara Plant】 We value the Plant's action in installing mist generators at locations exposed to electrostatic -related fire risks and establishing rules that prohibit work if relative humidity falls below 60%. To prevent fire spread in the event of a fire, it is recommended to not store combustibles such as pallets between buildings.

Sincerely,

Yasushi Fuse
Representative Director and President
Sompo Risk Management & Health Care Inc.

SOMPO Risk Management & Health Care Inc.

Opinion on the Occupational Health and Safety Survey

March 14, 2017
Akira Ishii
Repeesentative Director and President
Nippon Soda Co., Ltd.

Written Opinion on Occupation Health and Safety Survey

Dear Mr. Ishii,

Below is a brief summary and our opinion on the occupational health and safety survey.

■Survey Objective

The objective of this survey is to propose recommendations to help reduce the number of occupational accidents at Manufacturing Unit within the Manufacturing Division, Mizushima Plant, focusing on management aspects. The survey includes review of past accidents, on-site and interview with relevant personnel (manager and supervisor from the Manufacturing Division and manager and assistant manager of the Administration Division).

■Survey Procedure

The following survey activities were conducted at targeted workplaces on December 9th, 2016: "observation of shift handover and meeting before production", "on-site survey", "interviews with relevant personnel" and "document review".

■Opinion on Occupational Health and Safety Survey

Overall

- Hydrogen cyanide is used as a raw material for producing sodium cyanide at the Manufacturing Unit within the Manufacturing Division. Thus, work is conducted under an environment of high alert leading to fostering of a mutual/voluntary safety culture at the workplace. Efforts made by management supervisors, including manager and supervisor from the Manufacturing Division and manager and assistant manager of the Administration Division, also contributes to an overall good rating in safety and health management. While there has not been any serious occupational accident at Mitzushima Plant, the following recommendations are made based on this survey to further enhance safety and health management at this site.

Improving skills of young workers

- We highly value efforts made at workplaces that handles hydrogen cyanide to ensure health safety of not only oneself but all workers by having experienced workers caring for the young workers through OJT and passing down of knowledge/ techniques to impeove young workers' skills. Main reasons for high number of occupational injury among young workers include immaturity of the following: (1) skill, (2) communication, and (3) predictive capability (forecasting possible outcome). Thus, it is recommended to continue to promote education for young workers from these perspectives.

Promotion of safety and health activities

- Enhancement of the following are recommended to further peomote safety and health activities.
  - Kiken Yochi (Risk Prediction) Training: Write down new risk factors/countermeasures found at work on the Kiken Yochi Board after the meeting before production Kiken Yochi activity and put it into use in the next Kiken Yochi activity.
  - Pointing and Calling: Post "pointing and calling phrases" at all workplaces where pointing and calling should be practiced.
  - Boosting Motivation: Establish an award system that recognizes workers who have contributed in overall plant improvement (not limited to safety and health) and is eligible to all workers.

Sincerely,

Yasushi Fuse
Representative Director and President
Sompo Risk Management & Health Care Inc.

This section provides explanations of terms and phrases used in this report.

CSR-related terms and phrases

CSR activities to protect corporate value p.11, 1

Nippon Soda's "protective" CSR activities, aiming to minimize negative impacts on society, with the primary focus on responsible care (RC) activities as a chemical company

CSR activities to improve corporate value p.11, 2

Nippon Soda's "proactive" CSR activities, aiming to augment beneficial impacts on society, with the primary focus on materiality to address social issues

SDGs p.13, 1

SDGs stands for Sustainable Development Goals, comprising 17 goals and 169 targets to be achieved by 2030 to address global issues faced by the international community. The SDGs, which present a vision of how the world should be in 2030, were adopted at the United Nations Sustainable Development Summit held in September 2015 at the UN headquarters, with the participation of leaders from more than 150 member states.

Materiality p.14, 2

In accounting, "the principle of materiality" is used to indicate important factors that have a significant impact on financial performance. The concept of materiality has also been applied to specific material aspects in CSR activities, mainly in managing and reporting CSR activities.

KPI p.14, 3

KPI stands for key performance indicator. KPIs are used to monitor a specific business process to achieve goals.

Diversity p.14, 4

Diversity refers to a concept of appreciating and accepting diversity in terms of gender, age, disability, nationality, value and various other factors so that all workers can play an active role at worksites to eventually achieve the sustainable growth of companies and the sound development of society.

Value chain p.15, 1

The value chain concept aims to maximize added value for stakeholders in the overall business model of a company that provides products, technology and/or services. It is also used as a framework to analyze the internal environment of a company. In the aforementioned SDGs, it is also expected that a company fulfills its social responsibility and creates value based on the results of a thorough review of the impacts of its activities along the whole value chain on society and the environment.

PDCA cycle p.19, 1

PDCA stands for Plan-Do-Check-Act. The PDCA cycle is a management method used to facilitate management activities, such as RC activities, production control and quality control, in business activities such as manufacturing. It was advocated after World War II by Walter A. Shewhart and W. Edwards Deming who developed the basic idea of quality control.

Outside in p.26, 1

The outside-in perspective is an approach to making business decisions and setting goals based on "backcasting" (analyzing backwards from the future view) by connecting business activities to social and environmental issues. This is described as an efficient approach to the UN Sustainable Development Goals (SDGs) in SDG Compass—The Guide for Business Action on the SDGs.

Transformation p.26, 2

Transformation is an approach that advocates the drastic business structural transformation of a company to address social and environmental issues.

BtoB p.26, 3

BtoB stands for Business to Business and refers to commercial transactions between businesses.

BtoC p.26, 4

BtoC stands for Business to Customer or Business to Consumer and refers to commercial transactions between businesses and individuals, such as general consumers.

Chemical terminology

Yellow Card p.55, 1

A Yellow Card is an emergency information card with information about procedures that drivers, fire and police personnel, and other concerned parties should take in the event of a spill, fire, explosion or other safety incident that may occur during transport. It also contains emergency contacts. The issuance and carrying of Yellow Cards is required by the Poisonous and Deleterious Substances Control Act and other laws.

Container Yellow Card p.55, 2

A Container Yellow Card is a label that is affixed to containers. It indicates the United Nations number and guide number defined by the Emergency Response Guidebook in addition to other information.

MSDSplus p.56, 3

A report recommended by the Joint Article Management Promotion-consortium (JAMP) to be used for sharing information on chemical substances contained in products, for the purpose of supplementing information provided by the SDS. Some chemical substances contained in substances/preparations are required to be regulated under major relevant domestic and international laws and regulations and industry standards. MSDSplus is used by staff in charge of the management of information on these chemicals for the purpose of providing such information to customers.

SDS (Safety Data Sheet) p.57, 1

An SDS is a document that contains information on the safe handling of chemicals and raw materials that contain chemicals.

GHS (Globally Harmonized System of Classification and Labelling of Chemicals) p.57, 2

GHS stand for Globally Harmonized System of Classification and Labelling of Chemicals. The GHS is a global system for standardizing the classification and labeling (product labels and SDSs) of chemicals according to their hazards.

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) p.58, 3

REACH is a European Union regulation that requires companies that manufacture or import chemical substances in the amount of one ton or more per year into the EU to register these substances and submit chemical safety reports. Chemicals for which data are not submitted (substances that are not registered) are not permitted to be put on the market.

Third-party Opinion from an Expert

We sought a third-party opinion from an expert to identify new issues related to CSR.

Keisuke Takegahara
Executive Officer
Deputy Chief Research Officer
Development Bank of Japan

The leading expert in Japan on environmental finance, with such accomplishments as having developed the DBJ Environmentally Rated Loan Program. After graduating from Hitotsubashi University's Faculty of Law in 1989, he joined the Japan Development Bank, which was the predecessor of the current Development Bank of Japan (DBJ). He was the chief representative of the DBJ's Frankfurt office in 2005, and resided in Germany for a total of six years. In 2011, he was appointed the bank' General Manager of the Environmental Initiative & Corporate Social Responsibility Support Department. He became the bank's General Manager of the Economic & Industrial Research Department in 2016, and was appointed to his current position in June 2017. He has also served as the joint chair of the operating committee for the Principles for Financial Actions towards a Sustainable Society (since 2014) at the Ministry of Environment.

Publications that he has authored or co-authored include *Recyclable Energy and the New Growth Strategy* (2015), *Environmental Ratings: Information Base of Environmental Finance* (2010) and *Lessons from Germany's Environmental City Models* (2011), among others.

Since fiscal 2014—which was the year when Nippon Soda made the transition from issuing environmental reports to CSR reports and also the year I was last asked to give a third-party opinion—there have been dramatic changes in the external environment surrounding corporate CSR management. During this time, Nippon Soda has steadily proceeded to integrate its foundational RC activities into its CSR activities, and has been disclosing its progress by enhancing the information that it provides in its CSR reports. I consider it a great honor to have been given this opportunity to offer my third-party opinion at this time, when CSR activities will be incorporated to management for the company to go on to a new level, as represented by your clear statement in the new medium-term business plan to further deepen your CSR management as you look toward the 100th anniversary of the company's founding.

The concept that was implemented in the previous fiscal year, in which you discuss the value creation scenario for your company from the two sides of "CSR activities to improve corporate value" and "CSR activities to protect corporate value," has been elaborated even further this time. Moreover, the positioning of this concept within the new medium-term business plan has been further clarified, thereby strengthening the message that you send out through this concept. Of particular note is the fact that with regard to "CSR activities to improve corporate value," you made use of the frameworks of the Sustainable Development Goals (SDGs) and identified four key areas comprised of agriculture, medicine, the environment and information in which to focus the investment of your business resources. This is the highlight of this CSR report, and serves as a good example of bringing together a way to solve social issues and increase corporate value, which is currently attracting attention in terms of ESG investment. In particular, the fact that you stated in the field of agriculture that the appropriate use of agrochemicals will contribute toward ensuring a safe food supply and sustainable agriculture, and the importance of communicating with users to achieve this, should be highly rated because it demonstrates a corporate attitude of willingness to have forthright discussions on the impact that you have in your chief line of business. These contents, which have also been noted by the experts in their discussions, could lead to the development of outcome measurements through impact evaluation, and we thus look forward to their future progress with high expectations.

Meanwhile, with regard to "CSR activities to protect corporate value," which focus on reducing the downside risks in eight areas including environmental protection, process safety and disaster prevention/BCP, and chemicals and product safety, detailed explanations are continuing to be given under a framework that utilizes the ISO 26000, which was implemented at the time of integrating RC and CSR activities.

This three-dimensional structure, where these two aspects of CSR form the supporting pillars of CSR management, could be considered one powerful solution for defining the activities that are typical of chemical manufacturers, where RC activities have been gradually evolved into something more appropriate for today's world, which places importance on evaluating non-financial value. In the future, I hope to see Nippon Soda further deepen this concept, and enhance the relevance of the messages that it communicates to stakeholders. In doing so, I believe it would be better, from the perspective of making things easier to understand, to change the two central circles in the value creation model (p. 13) into "CSR activities to protect corporate value → CSR activities to improve corporate value." Also, since there is too much information overall, I think it might be worth considering placing focus on "CSR activities to improve corporate value" that have a story to tell, and perhaps separating out the more detailed figures and providing it on the website. Furthermore, (and this relates to the directional approach of the report toward the future), many of the activities categorized under "social activities" can be considered foundational activities or capital investments that could have an effect on the value creation model. Likewise, development of the next generation of human resources and R&D, which were listed alongside each other as key areas in the feature on "CSR activities to improve corporate value," could also be considered human capital or intellectual capital that could have an effect on the value creation model. I believe this gives a strong indication that your report will likely be evolving into an integrated report. In any case, this report has been a great step forward in serving as a tool for communicating to stakeholders about your company as you move into a new stage of CSR management, and I look forward to seeing further developments in the future.

Response to the third-party opinion from an expert

Nippon Soda issued the Responsible Care Report until fiscal 2013, when it was changed to the CSR Report with the implementation of CSR in that same fiscal year. This is the fifth CSR Report that we have issued so far.

We received a third-party opinion from Mr. Takegahara five years ago, on the issuance of our first CSR Report 2013. At the time, he wrote that the "report still seems to be somewhat analogous to a grafted tree, with RC as the stock and CSR as the scion. I hope the two will be integrated so as to be virtually inseparable." Having received this opinion, we advanced our CSR activities, hoping to successfully integrate this "grafted tree." We wanted to have our efforts toward this goal be re-evaluated by the same person, and thus requested Mr. Takegahara to once again provide us with a third-party opinion. I would like to take this opportunity to express my deep appreciation to him for accepting our request.

In this year's review, we received recognition for the work we undertook over the past five years to make the "grafted tree" a success, and also for a number of other activities that we pursued. We will continue to pursue a three-dimensional approach to CSR management based on the two foundational aspects of "CSR activities to improve corporate value" and "CSR activities to protect corporate value."

Meanwhile, we also received ideas on many new issues to work on in the future, such as his advice on how the current corporate value model is established and the approach to take in future CSR reports. We shall consider these opinions and begin implementing them as part of our CSR activities, starting with what we can.

We were able to include into our new medium-term business plan the issue of further developing our CSR management. As for the comments we received on "focus on 'CSR activities to improve corporate value' that have a story to tell," as well as those on "foundational activities or capital investments that could have an effect on the value creation model" and "social activities," we will discuss these further within the company and reflect them in our pursuit of realizing a more three-dimensional approach to our CSR activities. Thus, we will strive to contribute toward the development of a sustainable society and the establishment of a more comfortable society by "creating new value through the power of chemistry and contributing to society through products." We would like to thank Mr. Takegahara for the invaluable opinions he has provided, which will help us realize the further development of our CSR management.

Masahito Ikeda, Ph.D.
Executive Officer, General Manager,
Corporate Social Responsibility Department, Nippon Soda Co., Ltd.

Comparative Table with GRI Guidelines

This report is prepared in accordance with the core section of the GRI G4 Sustainability Reporting Guidelines (Version 4).

General Standard Disclosures ● : Required contents disclosures in accordance with the Core

	Indicators		Pages
Strategy and Analysis			
●	G4-1	A statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability	3-4 12
	G4-2	Provide a description of key impacts, risks, and opportunities	12, 13-16
Organizational Profile			
●	G4-3	The name of the organization	5-6
●	G4-4	The primary brands, products, and services	5-8
●	G4-5	The location of the organization's headquarters	5-6
●	G4-6	The number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	5-6
●	G4-7	The nature of ownership and legal form	5-6
●	G4-8	The markets served	7-8
●	G4-9	The scale of the organization	5-6, 85-86
●	G4-10	The breakdown of the employees	5
●	G4-11	The percentage of total employees covered by collective bargaining agreements	64
●	G4-12	The organization's supply chain	85-86
●	G4-13	Any significant changes during the reporting period	5
●	G4-14	Whether and how the precautionary approach or principle is addressed by the organization	13-14, 17-18 21-22, 58, 78
●	G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	13, 74
●	G4-16	Memberships of associations and national or international advocacy organizations	74
Identified Material Aspects and Boundaries			
●	G4-17	All entities included in the organization's consolidated financial statements or equivalent documents; whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report	5-6
●	G4-18	The process for defining the report content and the Aspect Boundaries; how the organization has implemented the Reporting Principles for Defining Report Content	1-2
●	G4-19	All the material Aspects identified in the process for defining report content	11-12, 29-36
●	G4-20	The Aspect Boundary within the organization for each material Aspect	22-24
●	G4-21	The Aspect Boundary outside the organization for each material Aspect	22-24
●	G4-22	The effect of any restatements of information provided in previous reports, and the reasons for such restatements	—
●	G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	2
Stakeholder Engagement			
●	G4-24	A list of stakeholder groups engaged by the organization	15-16, 59-74
●	G4-25	The basis for identification and selection of stakeholders with whom to engage	13, 15-16
●	G4-26	The organization's approach to stakeholder engagement	15-16, 25-28 52, 59-74 89-91
●	G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded; the stakeholder groups that raised each of the key topics and concerns	15-16, 25-28 52, 59-74 89-91
Report Profile			
●	G4-28	Reporting period (such as fiscal or calendar year) for information provided	5
●	G4-29	Date of most recent previous report (if any)	1
●	G4-30	Reporting cycle (such as annual, biennial)	1
●	G4-31	The contact point for questions regarding the report or its contents	Back cover
●	G4-32	The 'in accordance' option the organization has chosen; the GRI Content Index for the chosen option; the reference to the External Assurance Report, if the report has been externally assured	95-97
●	G4-33	The organization's policy and current practice with regard to seeking external assurance for the report	89

	Indicators		Pages
Governance			
●	G4-34	The governance structure of the organization; any committees responsible for decision-making on economic, environmental and social impacts	75-76
	G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	18, 75-76
	G4-36	Delegation of responsibility for economic, environmental and social topics to executive and/or other positions, and process for directly reporting to the highest governance body	18, 20 75-76
	G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics, delegation of consultation and feedback processes to the highest governance body	18, 75-77
	G4-38	Composition of the highest governance body and its committees	75-76
	G4-39	Whether the Chair of the highest governance body is also an executive officer	75-76
	G4-40	Nomination and selection processes for the highest governance body and its committees	75-76
	G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	75-77
	G4-42	Roles of the highest governance body and senior executives in organization's actions related to economic, environmental and social impacts	18, 20
	G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	18
	G4-44	Performance evaluation process for the highest governance body with respect to governance of economic, environmental and social topics	18-19 23-24
	G4-45	The highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities, including the implementation of due diligence processes	18-20 77
	G4-46	The highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	18-20 77
	G4-47	The frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	18-19 75-77
	G4-48	The highest committee or position that formally reviews and approves the organization's sustainability report	18-20 75-76
	G4-49	The process for communicating critical concerns to the highest governance body	76-77
	G4-50	The nature and total number of critical concerns communicated to the highest governance body and the mechanism(s) used to address and resolve them	77
	G4-51	Remuneration policies for the highest governance body and senior executives, and how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives	Corporate Governance Report Principle 3-1
	G4-52	The process for determining remuneration	Corporate Governance Report Principle 3-1
	G4-53	How stakeholders' views are sought and taken into account regarding remuneration	Corporate Governance Report Principle 3-1
	G4-54	The ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees	—
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Specific Standard Disclosures

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G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	—
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G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	—
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G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	—
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G4-HR3	Total number of incidents of discrimination and corrective actions taken	63
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G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	—
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G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	—
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G4-PR6	Sale of banned or disputed products	—
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The following table is a list of activities of the Nippon Soda Group corresponding to the seven core subjects in ISO 26000: Guidance on social responsibility:

Core subjects	Issues	Activities	Pages
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		Process Safety & Disaster Prevention/BCP	47-48
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	Sustainable consumption	Special Section 1: Agriculture Development of Agrochemicals Friendly to People and the Environment	29-30
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About the Front Cover

A motif based on the company emblem, which consists of a hexagon-shaped snow crystal enclosing a hare made from snow. The snow crystal and the hare made from snow respectively represent high purity and virtue, which are essential to a chemical company.