

Integrated Report 2023



To our Stakeholders



Representative Director, President

TAKAGI Makoto

It is our aim to use creative science to contribute to a safe, secure, and prosperous society in harmony with our overriding theme of “Protecting and fostering life and nature.”

Since releasing our first product in the Japanese agricultural chemicals market in 1959, KUMIAI CHEMICAL INDUSTRY (Kumiai) have been focusing on the research and development and distribution of safe and effective agricultural chemicals in order to promote sustainable agriculture. In our efforts to support providing safe and secure food to people, we are helping reduce the burden on growers, which results in protection and nurturing of harvests based on harmony between humans and nature.

Food insecurity is becoming a more critical issue as a result of the increasing global population, global environmental issues related to climate change and biodiversity, and global social issues surrounding the agricultural industry. In order to resolve such social issues, as an advanced chemical manufacturer with innovative technologies and a unique position in the market, we will endeavor to create new value.

Through our core business including Agricultural Chemicals and Agriculture-related Business, we are developing and providing agricultural chemicals and agricultural materials and technologies needed for supporting safe, secure, and stable food production, which contributes to food security and a sustainable agricultural industry. Our second pillar is Fine Chemicals Business. Through this, we develop and provide chemicals that enrich people lives, which helps to improve quality of life.

In 2020, Kumiai Group set the Ultimate Goals, “We continue to take on the challenge of becoming a flexible corporate group with a strong presence that contributes to the sustainable development of society in harmony with nature, while supporting affluent lifestyles with our unique technologies,” and began working in harmony with it. We will continue our unending endeavor of creating new value, leading to the realization of a sustainable society through the utilization of our group strength, “R&D Capabilities,” in order to achieve a “safe, secure, and affluent society” along with “sustainable group development.”



Create the Future

-The Challenge for New Possibilities-

Table of Contents

	<p>Data Highlights 5</p> <p>Initiatives for Value Creation</p> <p>Message from the President 7</p> <p>Financial strategy & Mid-Term Business Plan 13</p> <p>History of KUMIAI CHEMICAL INDUSTRY 19</p> <p>Products and Services 21</p> <p>Value Creation Process 23</p> <p>Feature Articles "Herbicide AXEEV®" 25</p> <p>Business Overview 31</p> <p>Materiality 41</p>
	<p>Sustainability</p> <p>Initiatives for the Environment 45</p> <p>Information Disclosure in line with TCFD recommendations 47</p> <p>Initiatives for Society 49</p> <p>Corporate Governance 53</p> <p>Compliance 59</p> <p>Risk Management 61</p>
	<p>Corporate Data</p> <p>Financial Review 63</p> <p>Office Information 69</p> <p>Company Profile & Stock Information 72</p>

Editing Policy

We start publishing an Integrated Report for 2023. Our Corporate Philosophy is "We will contribute to the safety, security, and prosperity of society by leveraging our unique scientific creativity to protect and foster life and nature." This report will introduce our initiatives for realizing the "safety, security, and prosperity of society" and a "Sustainable development of Kumiai Group" to our stakeholders.

Time of publication

April 2023

Reporting Period

FY2022 (November 2021 to October 2022)

Reference Guideline

- Ministry of Economy, Trade and Industry
"Guidance for Collaborative Value Creation (Guidance)"
- Global Reporting Initiative
"GRI Sustainability Reporting Guidelines Standard"
- Ministry of the Environment
"Environmental Reporting Guidelines"

Scope

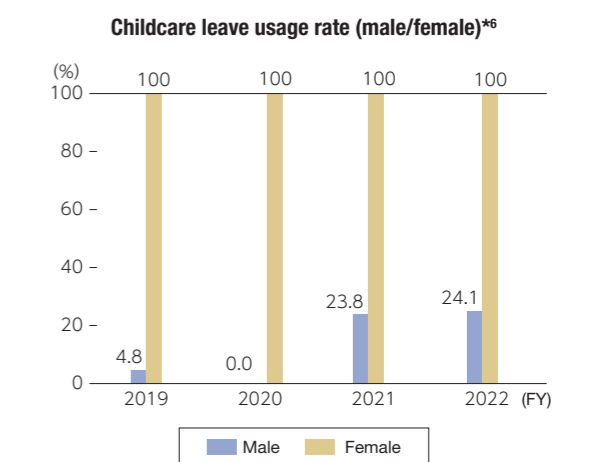
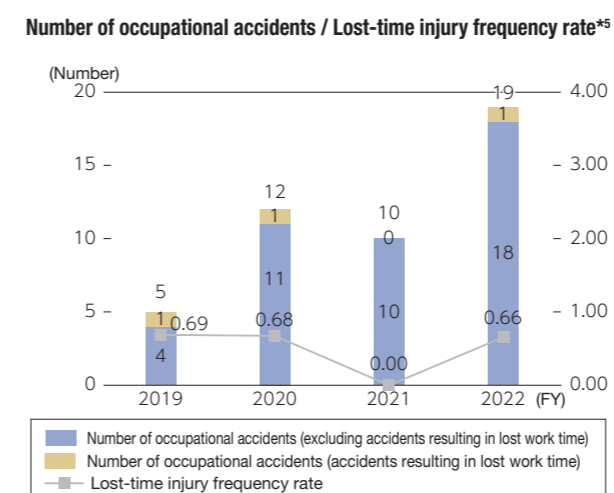
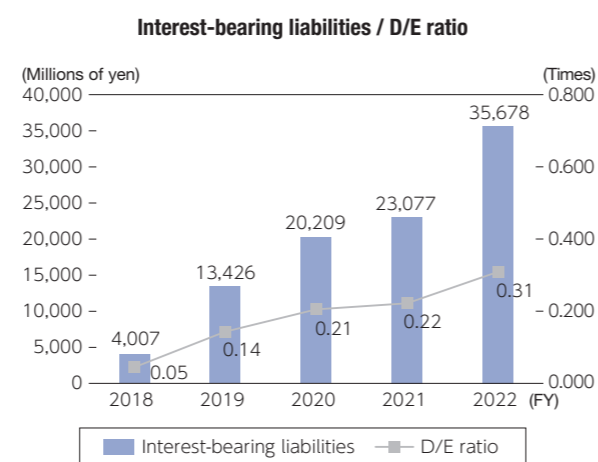
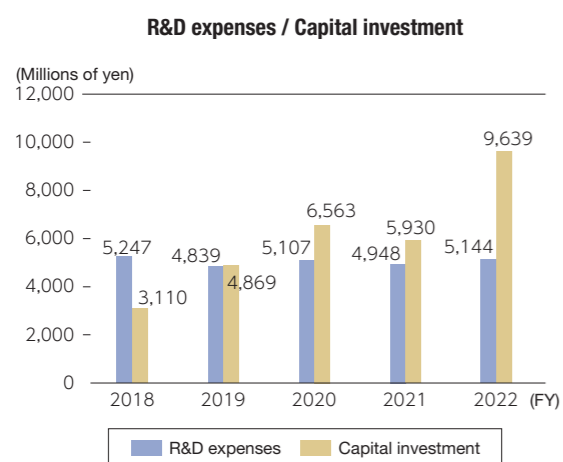
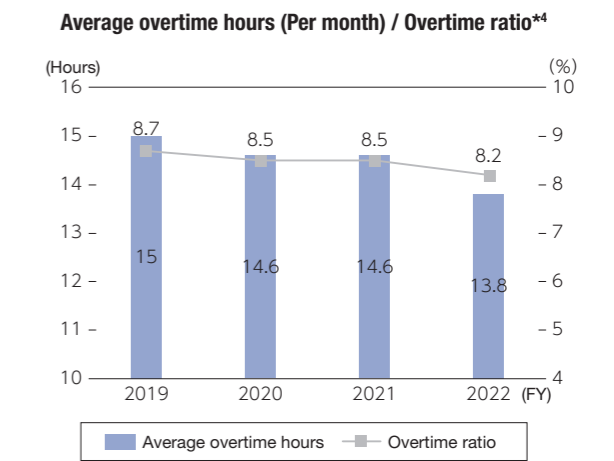
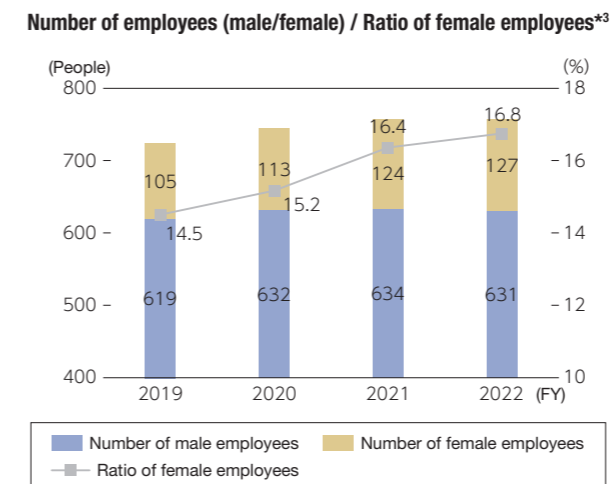
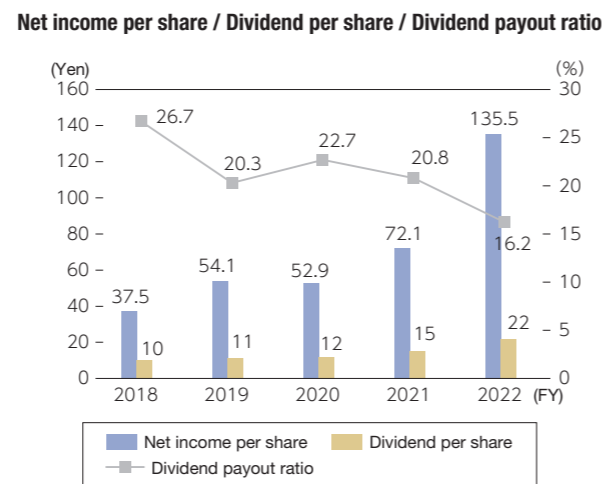
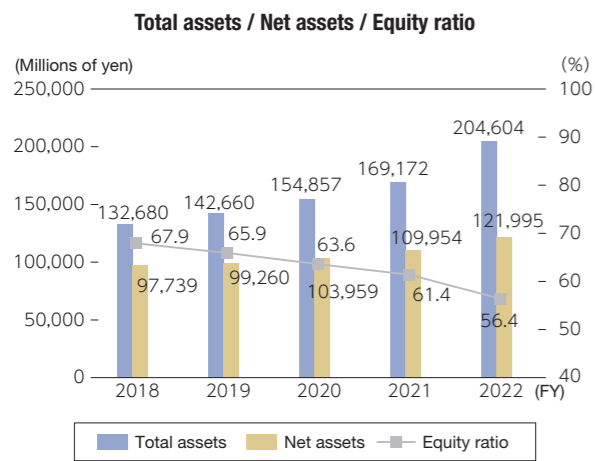
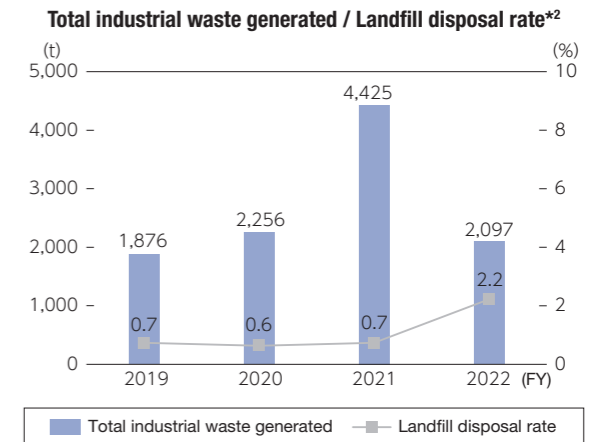
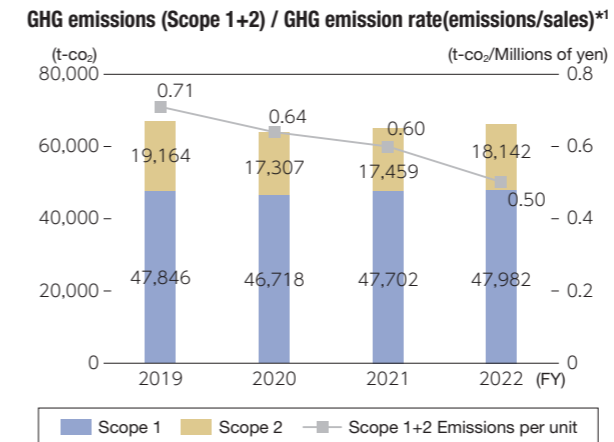
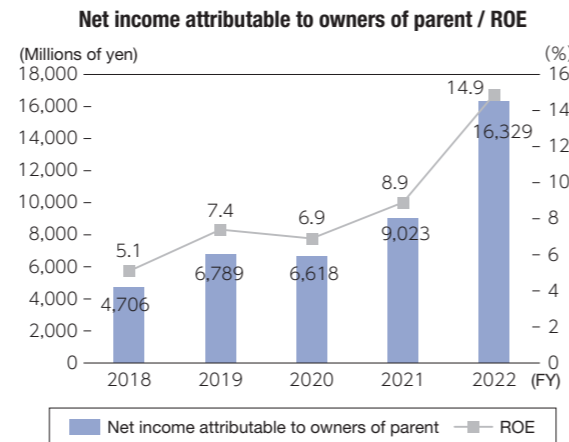
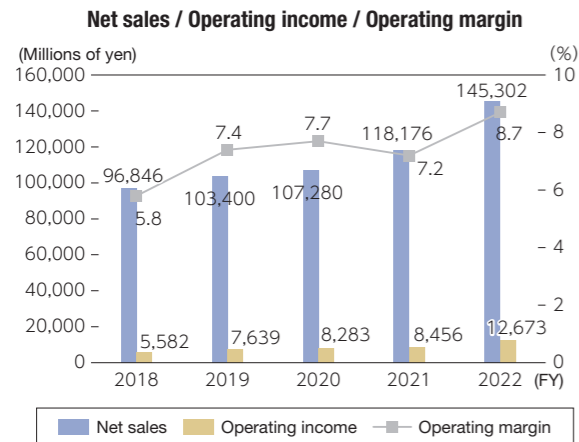
Published Financial and Non-Financial Information and ESG Information on the Kumiai Group.

Corporate website

For more information, please visit our corporate website.

<https://www.kumiai-chem.co.jp/>

Data Highlights



*All financial data on a consolidated basis.

*1: Seven Group Companies (KUMIAI CHEMICAL INDUSTRY, RIKENGREEN, IHARANIKKEI CHEMICAL INDUSTRY, K-I CHEMICAL INDUSTRY, Ihara Construction Industry, ONOMICHI KUMIKA INDUSTRY, and KUMIKA LOGISTICS.)
 *2-6: KUMIAI CHEMICAL INDUSTRY only *5: Direct employees of KUMIAI CHEMICAL INDUSTRY only

Message from the President



Representative Director, President
TAKAGI Makoto

Mid-Term Business Plan -Achieving Our “Ultimate Goals” as a 100-Year Old Company-

Economic trends inside and outside Japan have become more unclear. Therefore, in order to develop our group sustainably with the aim of becoming a 100-Year old Company, we have positioned our current three-year Mid-Term Business Plan, “Create the Future -The Challenge for New Possibilities-,” which was launched in the period ended October 2021 as a seeding period for expanding our business domains with the goal of achieving our “Ultimate Goals” based on market environment perspective for the next 20 to 30 years later. As the business environment continues to shift, it can be difficult to maintain sustainable growth by focusing solely on agricultural chemicals. Therefore, we took time to seriously consider what kind of value we can provide as a company by expanding our intended business domains in preparation for a paradigm shift in the business environment. To achieve this, we selected four important policies, which are ① Expansion of research and business domains, ② Ensuring diverse sales routes, ③ Ensuring cost competitiveness, and ④ Corporate activities that emphasize ESG, and we have been working to implement these.

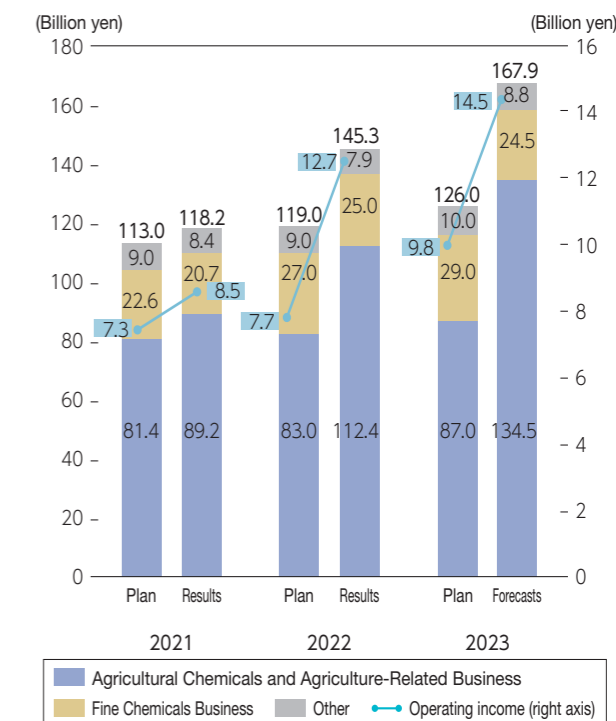
Continuing from FY2021, during FY2022, our consolidated net sales and operating income both reached new records, which were beyond the targets of the Mid-Term Business Plan, and we were able to achieve target figures set for the final year during the second year. ROE was 14.9%, which was much higher than the target set for the Mid-Term Business Plan of 7.3%.

There are multiple factors that have resulted in our performance exceeding the expectations set in the Mid-Term Business Plan. For example, in addition to rising demand for our main field crop herbicide AXEEV® due to soaring grain prices and an increase in planting area, we newly launched other inhouse developed products including an herbicide for paddy rice called EFFEEDA®, a fungicide for paddy rice called DISARTA®, which exceeded our forecast. We were able to maintain our good performance due to certain positive factors

including yen depreciation despite negative factors such as increasing costs with raw materials and manufacturing connected to higher crude oil prices. In the Fine Chemicals Business, although progress with the implementation of the Mid-Term Business Plan was delayed as a result of the long-term impact of the pandemic, it is now on track. There are also some positive factors like the increased demand with the Chlorination Business and Advanced Chemicals Business.

During FY2023, our aim is to increase earnings and profits from sustainable growth mainly with the Agricultural Chemicals and Agriculture-related Business, ensure the implementation of important policies and prioritized measures specified in the Mid-Term Business Plan, and to focus on strengthening the foundation for sustainability management.

Performance trends with the Mid-Term Business Plan



Introduction

Fiscal 2022 marked the second year for the Kumiai Group’s Mid-Term Business Plan “Create the Future -The Challenge for New Possibilities-” as well as my first year as a President. We have been implementing a variety of measures for increasing corporate value based on our three policies of “Promoting sustainability management,” “Enhancing governance in harmony with our transition to the Prime Market,” and “Pursuing the happiness of all stakeholders to help them achieve their dreams.” During my first year as a President, I held exchange meetings with executives and employees from all departments of the head office and from all offices in Japan, U.S., and Europe in order to listen directly to their opinions and encourage them to understand our new policies, which helped create an atmosphere where people feel free to speak up.

Although Kumiai Group is exposed to various risks including the invasion of Ukraine by Russia, we will maintain an open environment inside our group, and respond flexibly to major changes with the business environment by having all executives and employees work together.

From this time, we decided publish our comprehensive Integrated Report containing financial and non-financial information along with business strategies to our stakeholders.

Prioritized Measures and Initiatives based on Important Policies

For the Agricultural Chemicals and Agriculture-related Business, in addition to expanding our existing business, we have been promoting growth strategies in new fields and regions such as by “Expansion of research and business domains” and “Ensuring diverse sales routes.” We are always looking for opportunities to quickly enter into new fields through M&A. During the current Mid-Term Business Plan period, we acquired shares in Agricore Corporation, which develops new agriculture using cultivation techniques based on microorganisms and environmental control technology through IT, and acquired shares of the Singapore-based company AAI, which has agricultural chemical sales routes in Asia and Africa with high growth potential.

In the Fine Chemicals Business, we newly established our New Material Research Laboratory at the Process Chemical Research Center of the Chemical Research Institute for maximizing business. At the New Material Research Laboratory, researchers have been assigned from group companies in addition to Kumiai. Our goal is to establish a cross-sectional research system in our group by integrating research and development that had been carried out by each company into one laboratory, and will promote co-creative initiatives that utilize the knowledge, know-how, and technology of each company.

By deepening collaboration within Kumiai Group and with outside institutes, we will maximize our Fine Chemicals Business by developing new fields and moving business downstream.

Leading product AXEEV® with Sustained High Growth Potential

During FY2022, demand for our mainstay product AXEEV® remained high due to the rise of the global grain market. We initially expected sales of 39.2 billion yen in our plan, but we were able to reach 54.4 billion yen and significantly outperform forecasts. Shipping performance has been better than expected in all major countries, including U.S. As the effectiveness of AXEEV® has become more known, it has been positioned as an essential product for preventing herbicide resistant weeds at agriculture productions sites, and the earnings and purchasing capabilities of growers have improved due to soaring grain prices, resulting in greater demand for AXEEV®, which is a premium product. Moreover, demand for all agricultural chemicals has increased, causing a lack in supply for competitive products due to various factors. However, we were able to maintain stable production and supply of AXEEV®, which we believe to be a factor in its good performance. We anticipate that the favorable business environment will continue during the period ending in October 2023, and forecast an increase of 18.5 billion yen year-on-year to 72.9 billion yen.

During the period of the current Mid-Term Business Plan, AXEEV® has been growing at a higher rate than expected. However, we will continue keeping an eye on the entry of generic products into the market, soaring raw material prices, and trends with distribution stock in countries where our products are sold. We are also implementing proactive measures to maintain such growth.



Our Strengths as a Research and Development Oriented Company

Our stance is to continuously develop new agricultural chemicals through brute innovation as a research and development oriented company. It has been said that the probability of commercializing a new agricultural chemical from a given evaluation compound is 1 in 160,000. However, we have been able to develop new agricultural chemicals at an extremely high probability of 1 in 8,000. Major reasons why we are able to continue developing new products are the following: We develop products based on our understanding the needs of growers and our ability to anticipate the future market, our teams are composed of researchers from various fields which use integrated sciences for development, each individual researcher has wide expertise allowing for comprehensive value determination at the researcher level. Based on the goal of strengthening our research and development system, we are building a new Chemical Research Institute in Shizuoka Prefecture that will integrate three Chemical Research Centers that were formerly divided for chemical discovery, formulation technology, and process chemistry, which will open in the Fall of 2023. This will allow researchers from various fields to share their opinions and information in one space. This Chemical Research Institute includes “Shimizu” in its name which is where Kumiai was founded. The name Shimizu Innovation Park (abbreviated as “ShIP”) was chosen based on in house selection, and will be a place where various innovations can go beyond the framework of agricultural chemical and fine chemical products to create new technologies and business. The concept is a ship from Shimizu Port departing into the vast open sea. We will accelerate our research and development at this world’s most advanced research center allowing us to develop new compounds based on our dreams.

Initiatives for “Strategy for Sustainable Food Systems, MeaDRI”

In the “Strategy for Sustainable Food Systems, MeaDRI” that was formulated by MAFF in May of 2021, targets related to agricultural chemicals were set for pesticide manufacturers, which seemed to have aggressive goals like reducing the amount of use by 50% in terms of risk-conversion by 2050. On the other hand, the “MeaDRI” clearly stated that improvement of agricultural productivity and sustainable agriculture should both be promoted through innovation. In the Mid-Term Business Plan, we set our Ultimate Goals as a 100-year old company to be an “Advanced chemical manufacturer with innovative technologies and a unique business field contributing to agriculture that supports stable food supply.” The business strategy formulated to realize this “Ultimate Goals” already incorporates the vision presented in the “MeaDRI,” including responses to environmental protection and energy issues, etc., and we believe that our directions are largely in line with this. We believe that the development of agricultural chemicals that are safer, more effective, and have a lower environmental impact, as well as the development of technologies for IPM (Integrated Pest and Weed Management), smart agriculture, and microbial pesticides, will continue to be business opportunities for us as a research and development oriented company. We will confidently endeavor to establish innovative technologies that contribute to “Innovation that will enhance potentials and ensure sustainability in a compatible manner” in the “MeaDRI.”

Agricultural Chemicals and Agriculture-Related Business	
Expansion of existing business	Growth of AXEEV®, EFFEEDA®, and DISARTA®
Expansion of research and business domains	Development of Flupentiofenox, ECOARK®, biostimulants, methane suppression technology, acquisition of shares of Agricore
Ensuring diversity of sales routes	New markets are cultivated using AAI* (*Asiatic Agricultural Industries)
Fine Chemicals Business	
Expansion of research and business domains	Establishment of the New Material Research Laboratory

Initiatives for Sustainability Management

At the beginning of FY2022, we established our Basic Policy on Sustainability and set up a Sustainability Promotion Committee. In May 2022, we also established our Responsible Care Promotion Section to enhance the organization of the Sustainability Promotion Department, and made other efforts to strengthen the sustainability management platform throughout FY2022.

We also conducted a review of existing materiality based on Kumiai Group business strategy and social changes affecting us. By identifying new materiality, we will reflect ESG elements to our management strategy and aim to improve corporate social value by improving non-financial indicators while improving corporate economic value through business growth. By setting KPIs for each materiality and collaborating with the business plans of each department according to the Mid-Term Business Plan, we will take the initiative to work toward achieving these.

Kumiai Group will accelerate initiatives toward sustainability management with the aim of contributing toward the realization of a sustainable society while also improving corporate value.

As for initiatives in response to climate change and for reducing the load on the environment, which are deeply connected with our core Agricultural Chemicals and Agriculture-related Business, we have established targets for reducing greenhouse gas emissions from Kumiai Group by 30% by FY2030 compared to FY2019 through energy efficiency improvements and effective use of renewable energy. As for climate change mitigation and adaptation, in addition to these initiatives, in July 2022, we responded to the CDP (an international environmental non-profit organization which operates a global environmental disclosure system), and in November 2022, we announced our support for the TCFD (Task Force on Climate-related Financial Disclosures), and are engaging in information disclosure based on TCFD recommendations. In particular, we are reducing GHG (greenhouse gas) emissions by improving energy efficiency based on capital investment in our own factories and effectively utilizing renewable energy such as solar power, and are promoting GHG control by absorbing CO₂ through the management of 640 hectares of forest which we own in the town of Fukushima, Hokkaido. We are also conducting verification tests for practical use of technologies for controlling methane gas generated on farmland.

As the global population continues to rise, there is a limit to how much farmland can expand. Therefore, the agricultural chemicals that we develop, produce, and sell are essential for the stable supply of food to the world, and consider it to be one of our important missions to maintain stable business for supporting society as a whole. Although growers who are end-users of our agricultural chemicals understand the usefulness and risks of these chemicals and use these properly, general consumers of farm produce have few opportunities to understand the usefulness of agricultural chemicals. Therefore, some people have a negative view of agricultural chemicals based on unscientific information. We believe that it is extremely important for our stakeholder to have an accurate understanding of the need and safety of agricultural chemicals. We have published free manga brochures entitled “Okome wo Mamoru Hanashi” (“Protecting Rice”) and “Ringo to Mikan wo Mamoru Hanashi” (“Protecting Apples and Oranges”), and make visits to elementary schools to teach about this, targeting 5th grade students. Through such efforts, we are proactively engaging in educational activities that teach about the necessity and safety of agricultural chemicals along with the importance and challenges of agriculture.

Conclusion

FY2023 is the final fiscal year for the Mid-Term Business Plan, so we want to focus efforts on various initiatives for achieving our future “Ultimate Goals.” In the Shimizu Ward of Shizuoka City, where Kumiai was founded, our new Chemical Research Institute (SHIP) with cutting-edge equipment has been reborn as a state-of-the-art research facility.

In October 2022, Agricore Corporation was added to Kumiai Group as a company with specialized technology that takes advantage of unique microorganisms and IT. As we continue to conduct research and development of agrochemicals and chemical products, we will continue to innovate, which is like seeds for new business, and move forward with our aim of becoming a 100-year old company. Since Kumiai moved to the Prime Market of the Tokyo Stock Exchange in April 2022, we have a greater awareness of our social responsibility while we continue to expand our business. We believe that corporate value is determined by the extent to which we can help to address social issues. Therefore, we need to make effort to deepen our sustainability management, which will allow us to have both economic and social value.

Kumiai Group aspires to create a flow where each individual has dreams and then works to achieve them, and where satisfaction can be experienced through accomplishment, resulting in happiness. We refer to this as the Dreams and Triangle for Happiness. We also believe that sustainability management means pursuing the happiness of all stakeholders including employees, shareholders, and business partners, and means aspiring toward accomplishment including social contribution and responding to the environment, not just business performance and achieving targets, which will extend to happiness for the planet earth. We will continue increasing earnings and profits as we have been doing by “Strengthening shareholder return” and promote earth-friendly “Strengthening of sustainability management” in order to realize our Ultimate Goals for Kumiai Group toward becoming a 100-year old company.

In the next Mid-Term Business Plan that will be formulated during this period, we will also pursue much balanced shareholder return and capital allocation. I want to thank each of you for your continuous understanding and support.



Representative Director, President

高木 誠

Financial strategy



Basic Policy

Kumiai Group has been focusing on the development of safe agricultural chemicals with low impact on the environment since its founding. Since developing and commercializing the first agricultural chemical produced in Japan, we have promoted the distribution of products centered on our proprietary products throughout the world, and have been proactively working in harmony with the theme of protecting and fostering “life and nature” for contributing toward improvement of crop productivity on a global scale.

Kumiai Group is effectively investing management resources by focusing on our core business of research and development related to agricultural chemicals. Our basic policy is to establish a corporate structure for ensuring and increasing sales and profits through coordinated production, distribution, and sales, and by thoroughly implementing profit-oriented management.

Financial KPIs

It is our aim to continue sustainable growth and to strengthen profitability for improving corporate value. Therefore, Kumiai Group is well aware of the importance of “ROE” that indicates the operating efficiency of shareholder’s equity and total capital in addition to “Net sales” and “Operating income” as management indicators. In particular, ROE is a financial indicator that is most fitting with Kumiai Group’s strategy, and it is widely supported by investors as an

easy-to-understand single indicator. Our targets for the fiscal year ending October 2023 are net sales of 167.9 billion yen, an operating income of 14.5 billion yen, and ROE of 12.0%. During the current fiscal year, we will review the current Mid-Term Business Plan and formulate a new Mid-Term Business Plan (from FY2024 to FY2026) including establishment of set long-term financial KPI targets.

Mid-Term Business Plan Initiatives

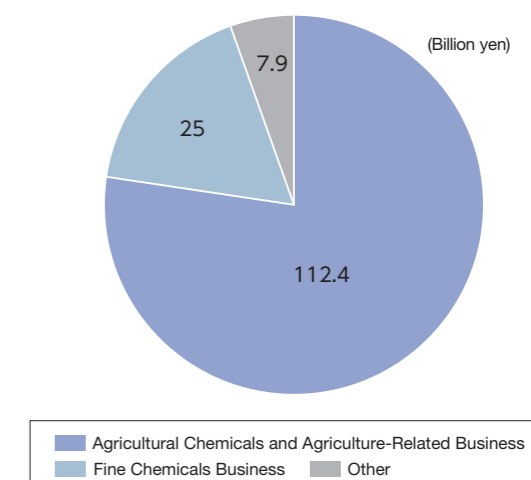
Although overall business performance was impacted by soaring raw material costs during the period ended October 2022, there was a significant year-on-year increase in sales and profits due to yen depreciation and price pass-through in addition to increased shipments in both segments of Agricultural Chemicals and Agriculture-related Business and Fine Chemicals Business.

In the Agricultural Chemicals and Agriculture-related Business, sales of proprietary products such as AXEEV®, which is a herbicide for upland crops in overseas markets, and EFFEEDA®, a herbicide for paddy rice in domestic market, and DISARTA®, which is a fungicide for paddy rice, increased. AXEEV®, in particular, has been highly accepted in the market due to its excellent performance, and is positioned as an essential product for agricultural crop production, which contributed significantly to our business performance.

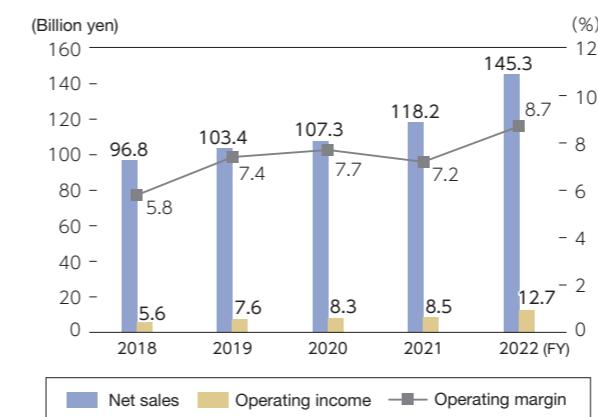
In the Fine Chemicals Business, demand for raw materials of aramid fiber in the Chlorination Business and for bismaleimides in the Advanced Chemicals Business remained high, and sales were strong. Our main business portfolio of Kumiai Group includes Agricultural Chemicals and Agriculture-related Business and Fine Chemicals Business, and Agricultural Chemicals and Agriculture-related Business accounts for 77% of net sales. Therefore, in order to respond to the ever-changing business environment, we believe it is important to strengthen our business portfolio. In order to expand the Fine Chemicals Business and

develop it as a second pillar, we newly established the New Material Research Laboratory in the Chemical Research Institute with the aim of deepening our major business domains such as Chlorination Business and Advanced Chemicals Business. This laboratory includes researchers from our group companies to promote initiatives through the utilization of the knowledge, know-how, and technologies owned by each company. By deepening collaboration within the Kumiai Group and with outside institutes, we will develop new markets and move business downstream.

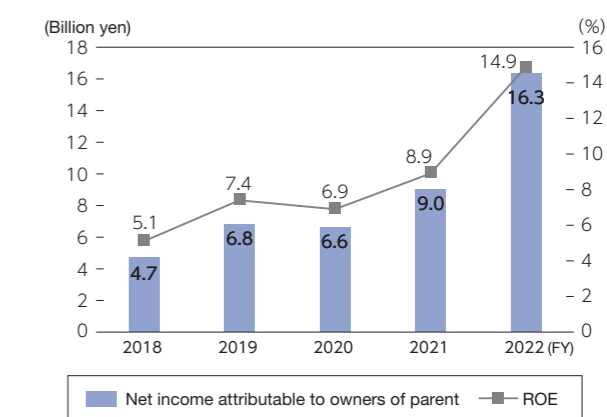
FY2022, Net Sales by Segment (Consolidated)



Net sales / Operating income / Operating margin



Net income attributable to owners of parent / ROE

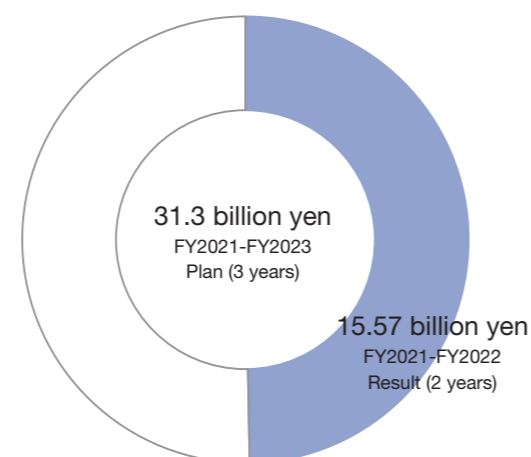


Investment Plan

(1) Progress of Capital Investment

Our current Mid-Term Business Plan includes the planning and execution of large-scale investments such as constructions of new Chemical Research Institute, a research building for the Life Science Research Institute (Kakegawa), a new production plant for the Tatsuno Factory, and a new plant for Ihara Construction Industry. Because of the implementation of large-scale investments for business growth, the total amount of capital investment during the period of the current Mid-Term Business Plan was expected to increase significantly compared to the previous Mid-Term Business Plan. However, the total amount of capital investment for the current Mid-Term Business Plan is expected to be less than the amount of investment in the original plan, as the targets of investment are being carefully examined and investments are being made more efficiently in order to adapt to the changes in the business environment. As for the next Mid-Term Business Plan period starting in November 2023, since large-scale capital investment will slow, total capital investment is expected to decrease while capital investment contributing to reduction of environment impact such as for reducing GHG emissions is expected to increase.

Progress of Capital Investment

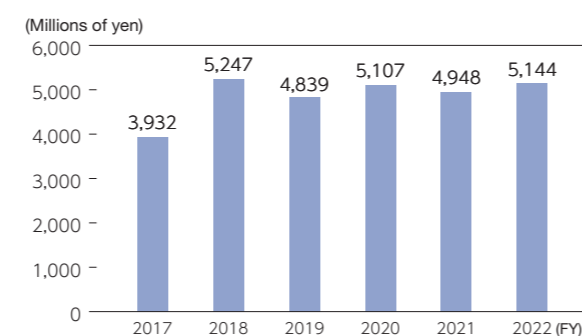


(2) Progress of R&D Investment

Since Kumiai Group is a research and development oriented company, continuous investment in R&D is essential for future growth.

With the current Mid-Term Business Plan, we have been promoting efficient and effective investment in new agricultural chemicals and fine chemicals that are in the development phase such as Flupentiofenox in line with the development plan, and are proactively investing in the creation of new products that will support future business for Kumiai Group. Therefore, the R&D investment amount for the current Mid-Term Business Plan period is expected to exceed results from the previous Mid-Term Business Plan period.

Research and Development Expenses



(3) Ensuring Diversity of Sales Routes and Expansion of Business domains through M&A

As an initiative for ensuring diversity of sales routes, we acquired a 60% share in the company Asiatic Agricultural Industries Pte. Ltd. (AAI) in February 2021, making it a consolidated subsidiary. AAI has a formulation factory in Singapore and sells products such as agricultural chemicals and pest control agents for public health in a total of 16 countries throughout Asia and Africa. We are working with AAI to expand business for promoting the development of new products and cultivating new markets in Asia and Africa.

We pursue opportunities of M&A to expand our business domains. We acquired 80% of the outstanding shares of Agricore Corporation and made it a non-consolidated subsidiary in October 2022. Agricore Corporation is proposing new agriculture through the use of microorganisms and IT with the aim of realizing an environmentally-friendly society. They have developed culture soil and special fertilizers using microorganisms, cultivation technology utilizing these, and a digested liquid circulation system for biogas power generation with aiming to contribution to sustainable agriculture and society through their business. Collaborations that utilize the knowledge and know-how cultivated by Kumiai Group will maximize various synergies for strengthening business profitability. It is our goal to continuously take hold of opportunities for investments and acquisitions to help expand our business in the future.

Shareholder Return

We recognize shareholder return as one of our most important management responsibilities. Our basic policy for dividends is to continue stable dividends comprehensively judging based on our earning trends, and internal reserves for strengthening our business structure and future business development.

Agricultural Chemicals and Agriculture-related Business, which is core business of Kumiai Group, needs many years from R&D investment until return on investment. Therefore, dividends are determined by prioritizing continuous and stable distribution of profits to our shareholders.

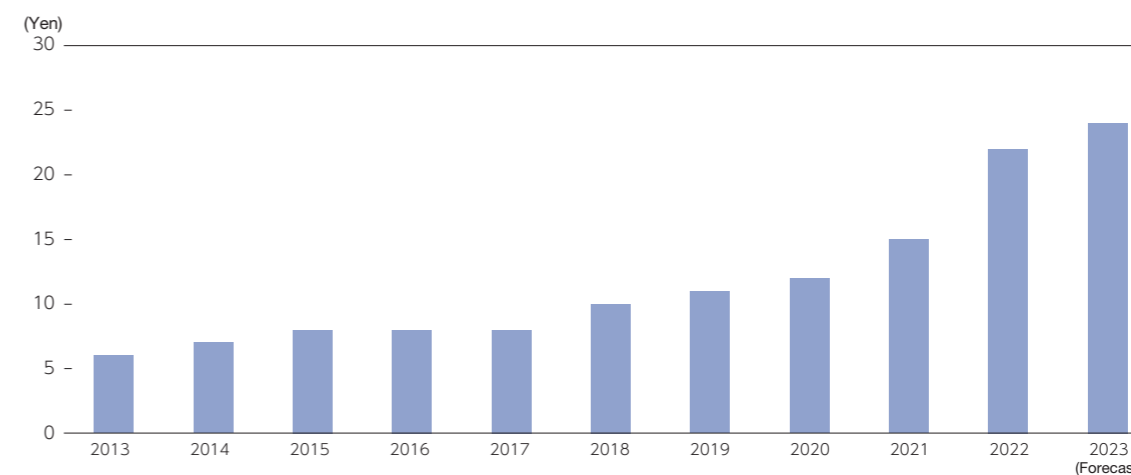
Regarding dividends for the period ending October 2023, we plan to increase dividends by 2 yen based on our current business performance.

Moreover, 4.1 billion yen in treasury stock was acquired in December 2021.

Although the existing basic policy will continue in the next Mid-Term Business Plan that is now being formulated, we also plan to disclose our basic concept regarding distribution of profits from the perspective of our shareholders, shareholder return and capital allocation, internal reserves and maintaining financial soundness.

By improving capital efficiency and strengthening our financial base, we will work continuously to improve corporate value for meeting the expectations of our shareholders.

Changes in Dividends



Dialogue with Investors

To help investors and shareholders better understand Kumiai Group, we have been promoting proactive IR activities to provide a variety of accurate information about us.

In particular, we hold a financial results briefing or small meeting every quarter for institutional investors, and respond to individual requests for interview. In recent years, we have set up opportunities to improve understanding of Kumiai Group including holding tours of our facilities.

When inquiries are made by individual investors, we reply to each one via email, and publish an information brochure for individual shareholders.

We will proactively make efforts to disclose comprehensive and integrated financial and non-financial information for improving our IR activities and for helping investors and shareholders to get a better grasp of our attractive features.

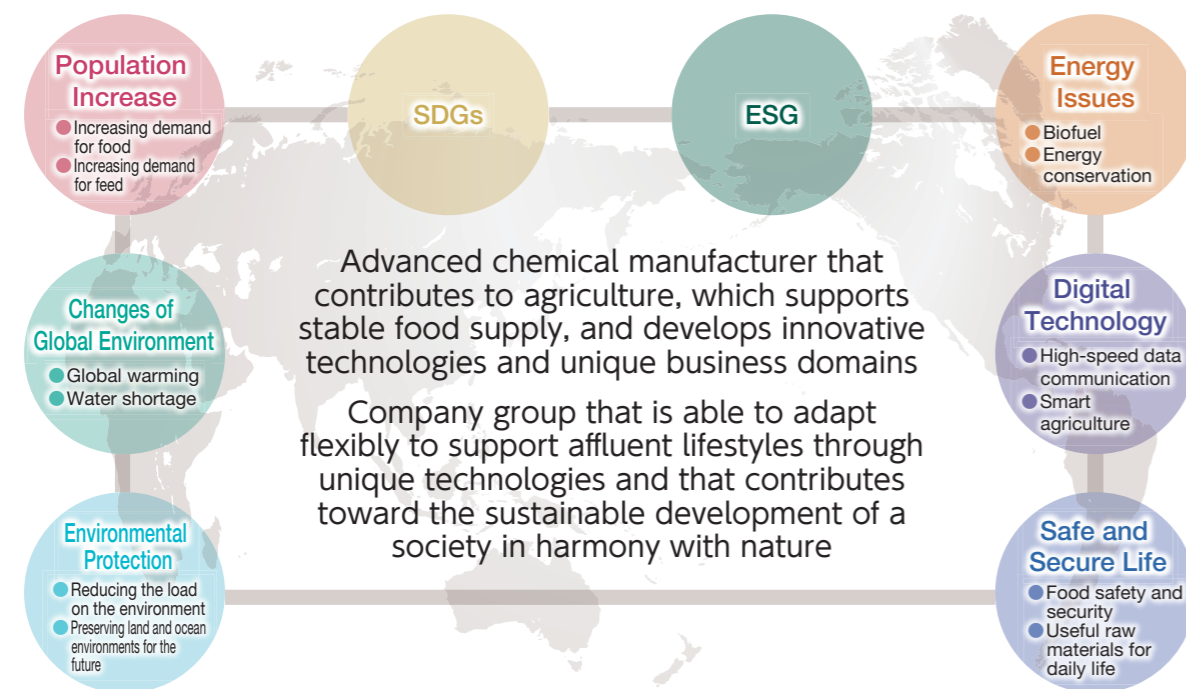
Progress and Results with the Mid-Term Business Plan “Create the Future -The Challenge for New Possibilities-”

According to our Mid-Term Business Plan, this is a seeding period for expanding business domains from the perspective of our “Ultimate Goals” in the next 20 to 30 years later with the aim of becoming a 100-year old company 26 years later from now.

Mid-Term Business Plan Overview

Kumiai Group launched the current Mid-Term Business Plan “Create the Future -The Challenge for New Possibilities-” (FY2021 to FY2023) in November 2020. When formulating the Mid-Term Business Plan, we decided that our management policy and strategies needed to be established from a long-term market perspective based on our future vision of Kumiai Group and to become a 100-year old company in order to sustainably develop our Group as economic trends and market environments in Japan and other countries become uncertain. Based on this concept, we made long-term perspective (up to 20 to 30 years) for the market environment and set Kumiai Group Ultimate Goals and then established our business strategies for realizing these Ultimate Goals.

(1) Ultimate Goals of Kumiai Group



(2) Orientation of future business strategies

① Creating new active ingredients for agricultural chemicals, and strengthening R&D capabilities	⑥ Strengthening and review of production systems
② Expansion of research and business domains	⑦ Expansion of contracted manufacturing business
③ Ensuring diversity of sales routes	⑧ Ensuring cost competitiveness
④ Business efficiency	⑨ Ensuring access to advanced technology and expansion of Fine Chemicals Business
⑤ Selecting and concentrating on growing business	⑩ Corporate activities that emphasize SDGs, contributing to a recycling-based society, and ESG

Based on our Ultimate Goals of Kumiai Group in 20 to 30 years later from now, three years in the current Mid-Term Business Plan are a time for planting seeds to expand our business domains. Since the business environment changes greatly, there is a limitation of our sustainable growth if we stick only to the agrochemical business. Therefore, we carefully considered what value Kumiai Group was able to provide to society, prepared for a paradigm shift in the future business environment by expanding our business domains, and set our basic management policy as “Aiming to be a corporate group that can be adaptable to changing market situations by development of innovative technologies and expansion of business domains, and aim to become company group that contributes to sustainable development of society by providing our products and services to enrich people’s lives”. We also selected “Expansion of research and business domains,” “Ensuring diversity of sales routes,” “Ensuring cost competitiveness” and “Corporate activities that emphasize ESG” as important policies that we should focus on during these three years in our current Mid-Term Business Plan among the items in the “Future Business Strategy” set in the above. Kumiai Group will ensure the implementation of measures according to the Mid-Term Business Plan while also working on non-continuous growth such as through M&A, and will continue making efforts based on the slogan “Speed, Cost, and Innovation” in order to “be a corporate group that can contribute to the sustainable development of society,” which is stated in our basic management policy.

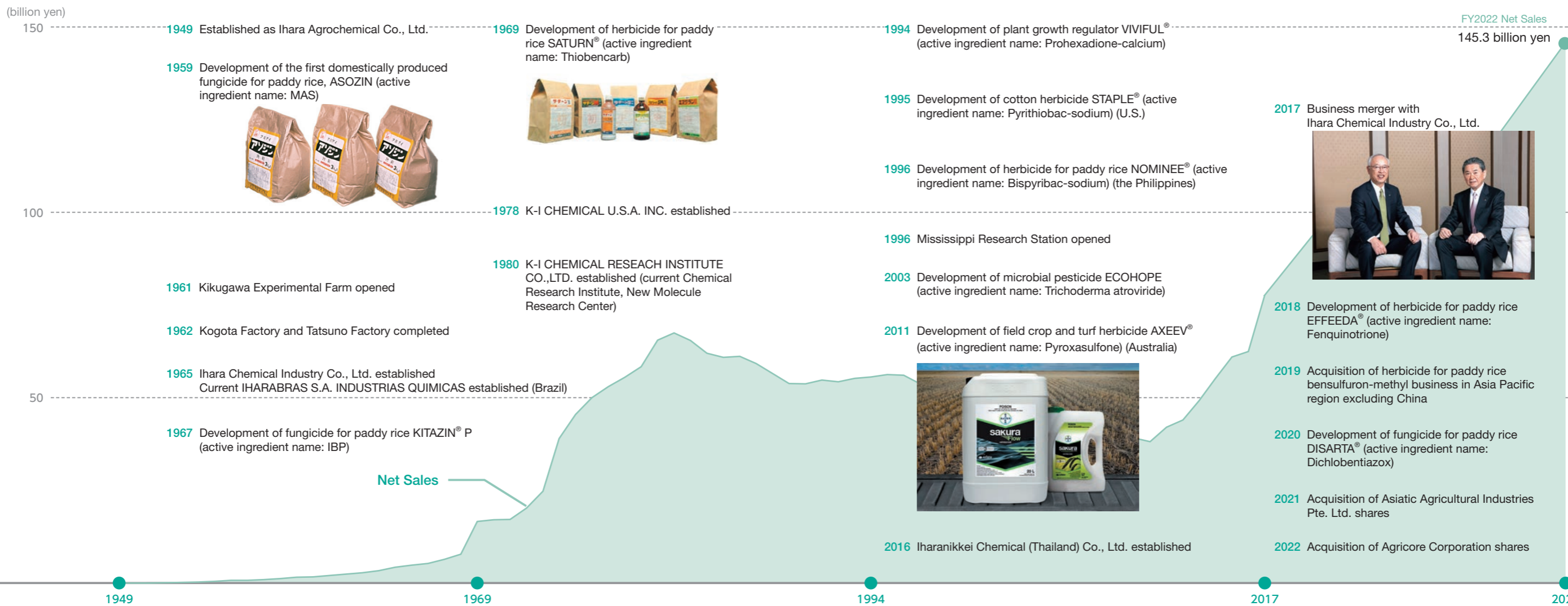
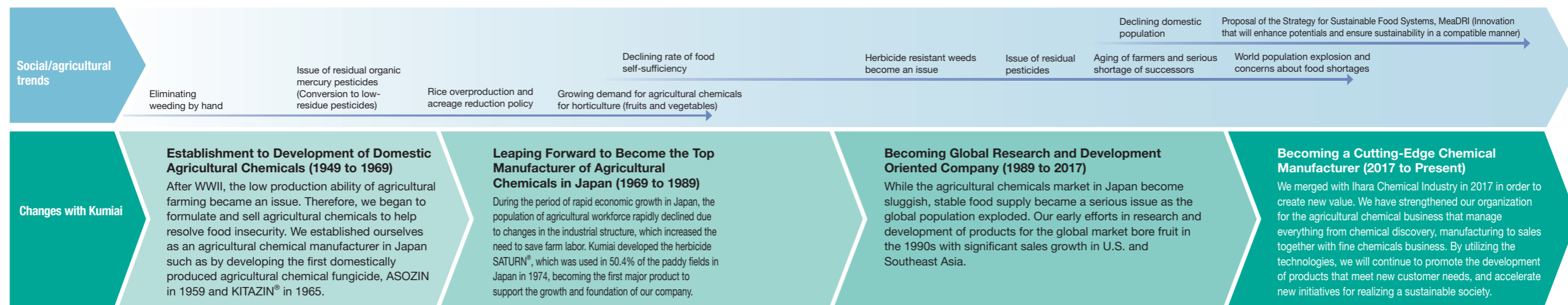
Management Target Figures

	Results for FY2020	Mid-Term Business Plan (FY2021 to FY2023)			
		Results for FY2021	Results for FY2022	Forecasts for FY2023 (Announced in December 2022)	Forecasts for FY2023 (During planning)
Net sales (Billion yen)	107.3	118.2	145.3	167.9	126.0
Operating income (Billion yen)	8.3	8.5	12.7	14.5	9.8
Net income (Billion yen)	6.6	9.0	16.3	14.1	—
Capital Investment (Billion yen)	6.6	5.9	9.6	—	31.3 / 3 years
Return on Equity (ROE) (%)	6.9	8.9	14.9	12.0	7.3
Operating Margin (ROS) (%)	7.7	7.2	8.7	8.6	7.8

In the Mid-Term Business Plan, we set management target figures of 126 billion yen for net sales and 9.8 billion yen for operating income during FY2023. However, we were able to achieve these targets a year early during the second fiscal year of the Mid-Term Business Plan FY2022. For FY2023, we have set higher targets and are working to achieve these. We will implement our business strategy for realizing our Ultimate Goals in the next 20 to 30 years later. We will also continue making efforts to grow our business and will proactively implement important policies and prioritized measures for strengthening our sustainability management base.

History of KUMIAI CHEMICAL INDUSTRY

KUMIAI CHEMICAL INDUSTRY (Kumiai) was established in 1949, and we celebrated our 70th anniversary in 2019. We will proactively develop our business from the perspectives of Japan and other countries in order to help with the stable production of food worldwide and environmental preservation.



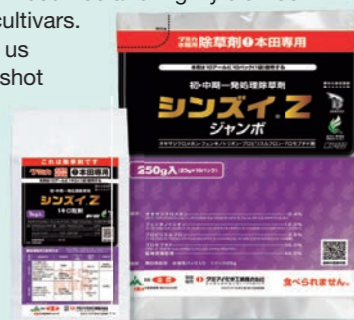
Products and Services

Kumiai Group makes the most of our R&D capabilities to resolve various social issues and improve quality of life by providing innovative products and services. We will endeavor to meet everyone's expectations.

Agricultural Chemical Products for Japan

EFFEEDA®

EFFEEDA® is a versatile herbicide for paddy rice developed by Kumiai that is highly effective against a wide variety of weeds, including herbicide resistant weeds and hard-to-control broadleaf weeds. On the other hand, it is extreme safety for paddy rice, and it is both effective and safe with good versatility, allowing it to be safely used for feed rice and high-yield rice in addition to ordinary cultivars. EFFEEDA® has given us the top share of one-shot herbicides for paddy rice for two consecutive years starting in 2021.



MAMETSUBU

MAMETSUBU is a water-surface application formulation for paddy rice that we developed independently. While standard granules are 0.8 to 1.2 mm in size, MAMETSUBU granules are as large as 3 to 8 mm, and when applied to paddy fields, they float on the surface of the water and disintegrate quickly, diffusing the active ingredients throughout the paddy field. MAMETSUBU's major features include the fact that it can be applied in a labor-saving manner without entering the paddy field, which is increasingly important due to the aging of farmers and the consolidation of fields, and that it can be used by various means regardless of the application method.



Agricultural Chemical Products for Outside Japan

AXEEV®

AXEEV® is an herbicide that can be used on major crops worldwide such as corn, soybean, wheat, and sugarcane, and is effective on a wide range of weeds from grasses to small-seeded broadleaf weeds. In recent years, the emergence and spread of herbicide resistant weeds has become a major issue worldwide. Because AXEEV® is highly effective against these weed species, it is widely accepted around the world as a product to combat such herbicide resistant weeds. Since its launch in 2011, it has grown steadily and has become an essential product at agricultural sites outside Japan. As of January 2023, it is registered in 21 countries, and is sold through partner companies worldwide.



NOMINEE®

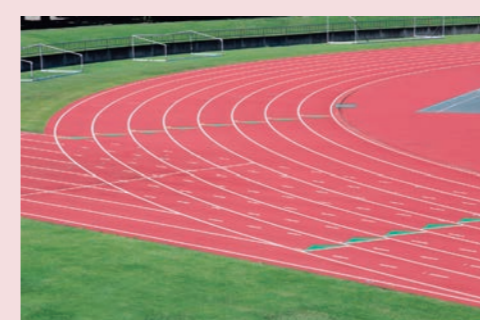
In 1996, NOMINEE® was first launched in the Philippines as an herbicide for paddy rice. In India, which is now a major market, removal of weeds that grow with rice has long been done by hand, and has become a major burden on agricultural work. When it was introduced in India for the first time as a foliar-applied rice herbicide, which killed weeds that had already grown, it became a sensation as it greatly reduced the labor as use of NOMINEE® spread. Surplus labor in rural areas shifted to industrial fields in India, which helped accelerate economic growth and reduced poverty.



Fine Chemical Products (KUMIAI CHEMICAL INDUSTRY)

Urethane-Related Products

Our Urethane-related products are used as a raw material for various urethane products. For example, it is used as a raw material for tennis courts and running tracks at athletics stadiums as well as machine parts such as in roller coasters and escalators. It is applied to a wide range of fields including waterproofing materials that are essential for improving and maintaining the safety, durability, and comfort of common facilities including buildings



like apartments and shopping malls as well as in highways. It is highly evaluated as a raw material for parts that can be used in severe usage environments such as steel plants, semiconductor factories, and oil fields in the Americas, Europe, and Asia.

Custom manufacturing for Fine Chemicals

By utilizing the organic synthesis technology that we have established over the years, we have been entrusted with manufacturing fine chemicals including the development of optimal manufacturing processes. We own multipurpose plants capable of handling small-to large-scale work, as well as large-scale clean disposal treatment facilities, allowing us to meet various needs including intermediates for pharmaceuticals and agricultural chemicals and high-performance chemical products.

Fine Chemicals (Group Companies)

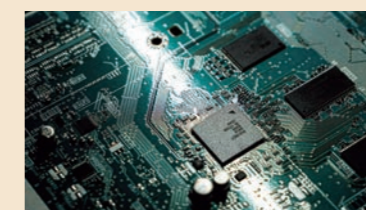
Chlorinated derivatives

Kumiai Group operates one of the leading Chlorinated-derivative business in Japan. We are Japan's largest supplier of terephthaloyl chloride and isophthaloyl chloride as raw materials for aramid fibers which are highly functional materials. Also we export our product to manufacturers outside Japan.



Bismaleimide monomers

Bismaleimide monomers are raw materials for resins with strength and heat resistance that help support our daily lives by being transformed into various products such as electronic substrates and aircraft components. We are the No. 2 supplier in Japan and No. 5 in the world for bismaleimide monomers responding to global demands.

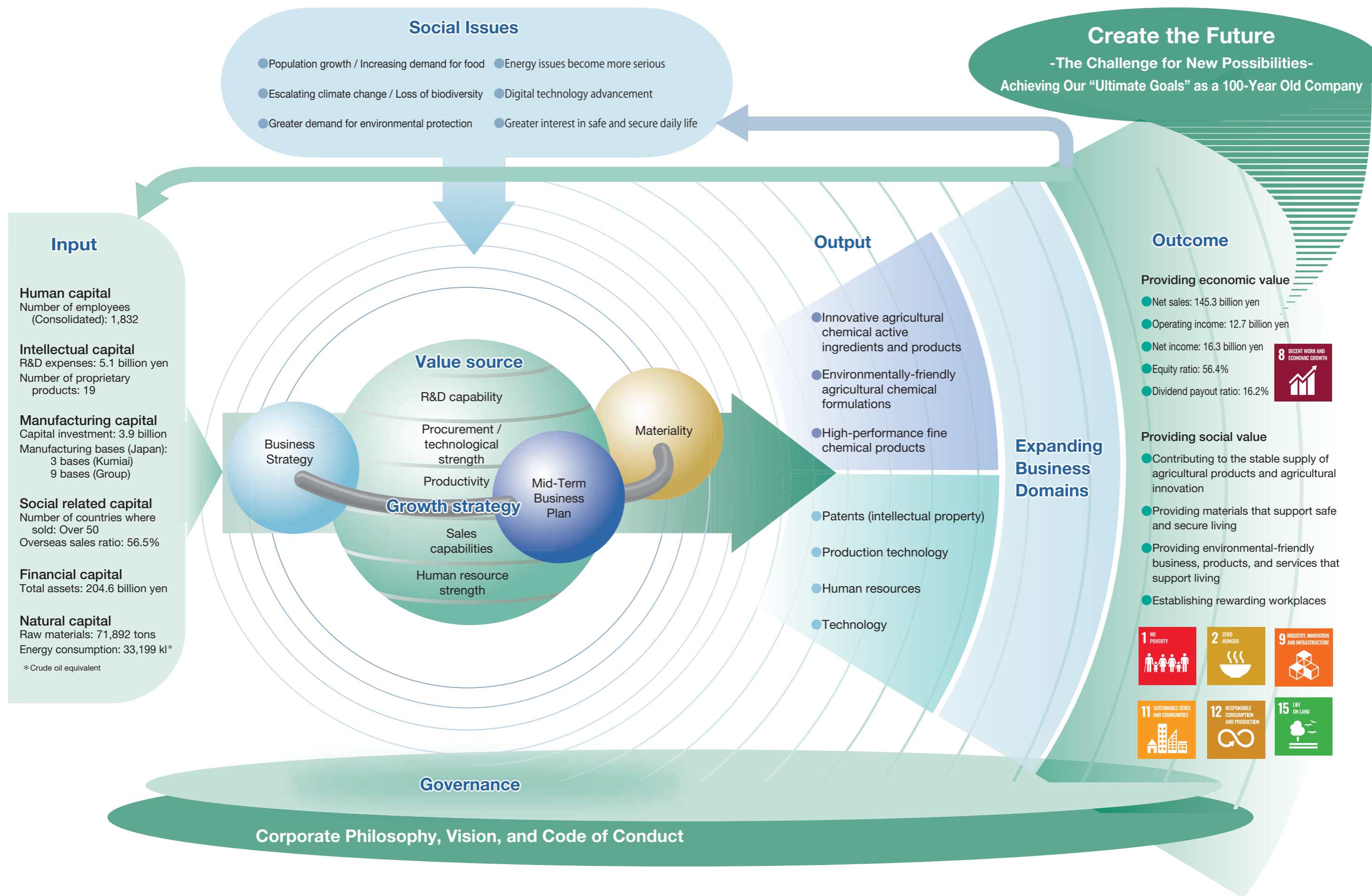


Creping control agents

Creping control agents are used for the manufacture of household paper (tissue, toilet rolls, and paper towels), and play an important role in the quality and production efficiency of household paper and are indispensable agents for household paper production. We have the largest share for the delivery of creping control agents in the Japanese market.



Value Creation Process





AXEEV® is a field crop herbicide and our main product. AXEEV® is applicable to major crops such as soybeans, corn, wheat, and sugarcane in the world, and is effective on a wide range of weeds including grasses and small-seeded broadleaf weeds at much lower use rate than conventional herbicides. In addition to the excellent herbicidal efficacy that meets the needs of growers, AXEEV® has a low impact on the environment and has been registered as an agricultural chemical in 21 countries, contributing to resolving social issues related to food insecurity and the global environment.

Social Issues

Food Insecurity, Worsening Global Environmental Issues, and the Spread of Herbicide Resistant Weeds

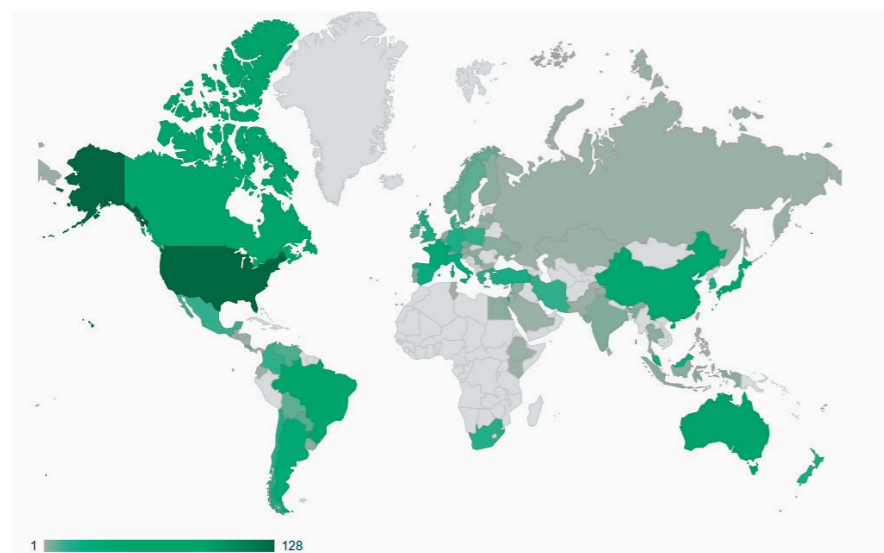
Increasing food production is an urgent issue in the world in order to support the world's population, which is expected to reach 9.7 billion by 2050. At the same time, this means that severe damage to the environment will be inevitable including deforestation in order to expand more cropland. To increase food production without relying the expansion of cropland, it's necessary to improve productivity through the proper use of safe and secure agricultural chemicals that have passed risk assessment on living organisms and the environment.

Recently, the impact of agricultural chemicals on the natural environment has drawn attention. In the EU, the "Farm to Fork Strategy" (Published by the European Commission in May 2020) and the "Strategy for Sustainable Food Systems, MeaDRI" (announced by MAFF in May 2021) in Japan were formulated to request less impact on the environment.

In the 1990s, genetically modified crops (GMOs*1) were introduced in the agriculture market that were tolerant to the non-selective herbicide glyphosate,

and this had a major impact on the cultivation system. Cultivation system using glyphosate capable of killing most plants and GMO crops tolerant to glyphosate quickly accepted by growers due to its convenience. Currently, the system accounts for more than 90% of the soybeans and corn production in the Americas. However, continuation of such cultivation system resulted in a problem. Weeds that were resistant to glyphosate (herbicide resistant weeds*2) began to appear. Glyphosate resistant weeds were first reported around 2000, and it was becoming a problem around 2005. By 2011, when AXEEV® was first introduced, it had already become a serious global problem. Currently, countermeasures are needed to control herbicide resistant weeds in order to ensure stable food production throughout the world. AXEEV®, which we developed, is widely accepted in the market as a tool to resolve such problem, and although it has been over 10 years since the first launch, the number of countries where it is registered continues to increase along with sales.

Total number of reports on herbicide resistant weeds



Herbicide resistant weeds have spread to the countries and regions shown in light green to dark green on the map. The number of reported serious cases in U.S. has reached 128.

Source: INTERNATIONAL HERBICIDE-RESISTANT WEED DATABASE (As of January 2023)

*1 GMO (Genetically Modified Organism): Crops that have been modified using genetic recombination technology. They are highly tolerant to diseases and pests, and are not killed by herbicides.

*2 Herbicide resistant weeds: Weeds for which herbicides have lost effectiveness due to repeated use of the same type of herbicide.

*3 Soil-applied herbicides: Herbicides that are applied onto the soil. Herbicides can be categorized into two types, soil-applied herbicides or foliar-applied herbicides.

Research and Development

13 Years of Research and Development

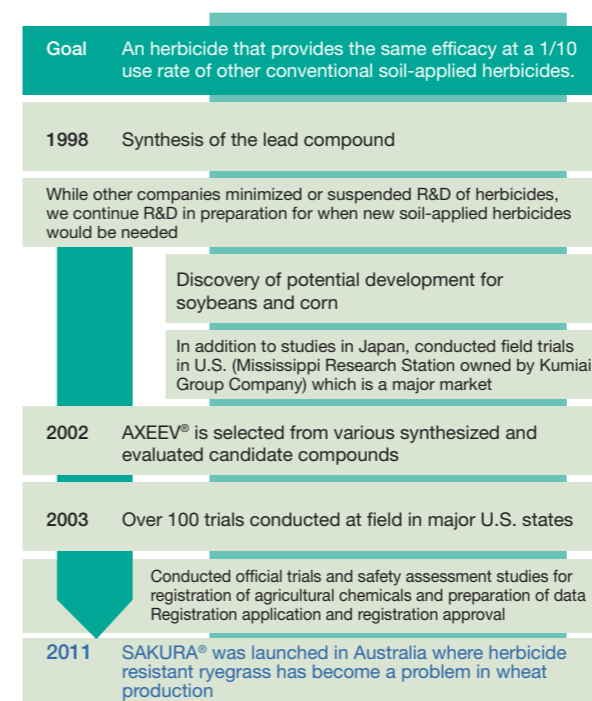
Exploratory Research for AXEEV®

Exploratory research for AXEEV® began with the aim of discovering a novel herbicide that provides the same efficacy at 1/10 the dosage of other conventional soil-applied herbicides*3 for field crops.

The lead compound of AXEEV® (the candidate compound we initially focused on) was synthesized in 1998, which showed potential for further development. At the same period, genetically modified crops (GMOs) with tolerant to the non-selective herbicide glyphosate began to appear, causing major changes to cultivation system. Use of glyphosate together with GMO crops became a common cultivation system, which caused some companies to minimize or suspend R&D for new herbicides. However, we expected there to come a time when new herbicides would be needed based on our accumulated knowledge from our R&D, and therefore, continued our research and development of new herbicides.

To discover new herbicides with high herbicidal efficacy and crop safety, we repeated synthesis and screening tests based on our lead compound, and in 2002, we finally discovered AXEEV® (active ingredient

name: pyroxasulfone). Later, more than 100 trials were conducted on fields yearly in U.S. Meanwhile, in Japan, research was being conducted to establish global formulations and on industrial manufacturing process. AXEEV® is a soil-applied herbicide that is applied on the soil and the active ingredient is absorbed by weeds through the soil. Therefore, we needed to study various factors including the type of soil and the impact from rainfall amounts which may influence herbicidal efficacy and selectivity. We conducted a large number of studies in Japan and field trials in target countries and then finally determined the proper application dosage and application conditions in each market. We also conducted assessment studies on safety and environmental impact, which are required for registration application of agricultural chemicals. It took considerable time and effort to prepare data for the registration application. In 2011, 13 years after the lead compound was first synthesized, we finally got the first registration approval of AXEEV® in Australia, and we launched the first AXEEV® product under the trade name SAKURA®.



GMO Trend

Introduction of genetically modified crops (GMOs) tolerant to the non-selective herbicide glyphosate (1996)



Field trials at the Mississippi Research Station

GMO crop cultivation system expands (Starting around 2000)



Glyphosate-resistant weeds were becoming a problem (Starting around 2005)

Feature Articles **Contributing to Resolve Social Issues**
Herbicide AXEEV®

Value Creation Source
Unified Research and Development System

R&D Process

The R&D Division has a series of research institutes, the Chemical Research Institute (New Molecule Research Center, Formulation Technology Research Center, Process Chemistry Research Center), and the Life Science Research Institute (Agrochemical Research Center, Life & Environment Research Center). Each research center, which plays a different role, collaborates to establish an integrated agricultural chemical research and development system, from the synthesis of new compounds to the study of industrial manufacturing processes.

Kumiai Group also owns a research station in Mississippi, U.S., allowing us to have a system where site trials can be carried out at any time, which is essential for global development agricultural chemicals. Thanks to this system, AXEEV® could be discovered within a short period of about four years after exploration started, and the transition to industrialization was smooth.



Mississippi Research Station (U.S.)

The efficacy of AXEEV® on soybean cropland



Untreated area Treated area

Chemical Research Institute (New Molecule Research Center)



- Synthesis of new compounds
- Physicochemical property evaluation

Life Science Research Institute (Agrochemical Research Center)



- Biological evaluation

Life Science Research Institute (Life & Environment Research Center)



- Safety assessment
- Environmental impact assessment

Chemical Research Institute (Formulation Technology Research Center)



- Formulation technology study

Chemical Research Institute (Process Chemistry Research Center)



- Process development
- Industrial manufacturing process research

Outcome
AXEEV® - Better productivity and lower environmental impact

AXEEV® is the brand name of the active ingredient “pyroxasulfone,” which is an agricultural chemical discovered and developed by Kumiai. Since its first launch 2011, it has been the main product of Kumiai Group and continues to grow steadily as a specific herbicide for controlling weeds that are resistant to conventional herbicides, and has helped to increase our business performance.

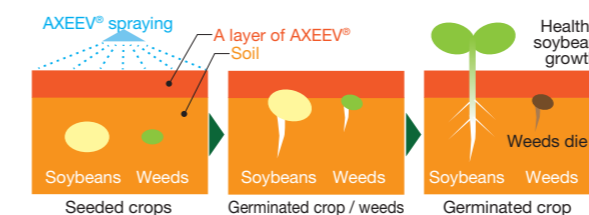
Improved productivity

Target crops Applicable to major crops including soybeans, corn, wheat, and sugarcane



Use applications Soil-applied herbicide for field crops
Sprayed onto the soil before weeds germinate

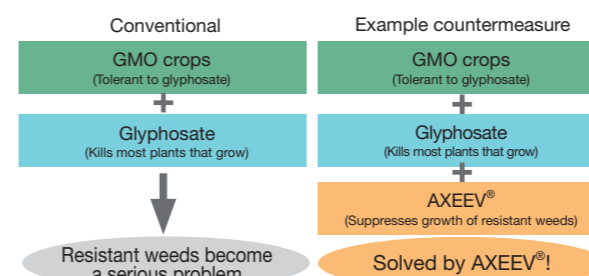
Spraying AXEEV® forms a layer of AXEEV® on the surface of the soil. When AXEEV® is absorbed by soybean and weed sprouts, only the weeds are killed while the soybeans continue growing.



Strength 1 Highly effective against glyphosate-resistant weeds

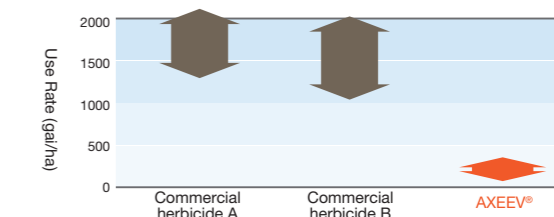
Currently, more than 90% of soybeans and corn in the Americas is grown using a combination of the herbicide glyphosate, which kills most plants, with GMO crops tolerant to glyphosate. This cultivation system was introduced in the 1990s, but during the 2010s, resistant weeds to glyphosate became a major problem. Since AXEEV® provides excellent efficacy for controlling glyphosate-resistant weeds, it is in high demand in areas where such resistant weeds have become a problem.

Image of cultivation system (Soybeans and corn)



Strength 2 Low use rate

AXEEV® shows effectiveness at low use rate that are about 1/10 that of conventional soil-applied herbicide. This not only helps to reduce the labor needed for spraying agricultural chemicals, but it also suppresses the load on the environment as well as CO₂ emissions related to transportation.



Strength 3 Excellent long lasting weed control by soil-applied herbicide

AXEEV® is effective for about two weeks longer than conventional soil-applied herbicides. The negative impact of weeds on crops can be reduced, while better productivity and higher crop yield are expected as the results. Since it is possible to reduce the amount of agricultural chemical being applied, it will reduce an environmental load.



Strength 4 The mode of action making it difficult to develop resistance

AXEEV® has a mode of action that makes it difficult for resistance to be developed. Therefore, it is expected to continue to contribute to improved crop productivity as an herbicide resistant weed control product.

Feature Articles **Contributing to Resolve Social Issues**
Herbicide AXEEV®

Sales Trends & Strategies

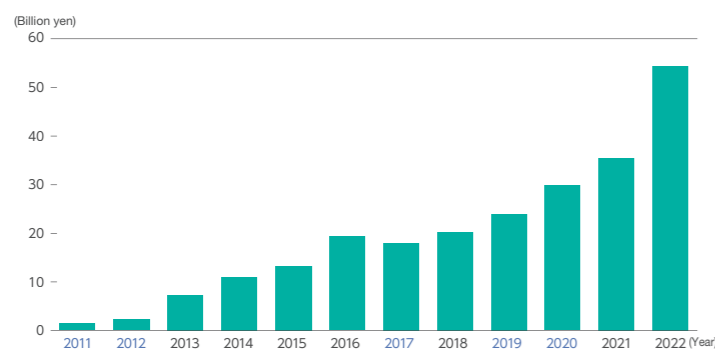
AXEEV® was launched in Australia as a soil-applied herbicide for wheat in 2011, and sales have continued to expand over these 12 years. Because it can be applicable to major crops such as soybeans, corn, wheat, and sugarcane, it is mainly sold in major markets including U.S., Australia, Argentina, Brazil, and India. AXEEV® shows excellent long lasting efficacy for controlling herbicide resistant weeds, especially against ryegrass in wheat and amaranthus in soybean. We have taken advantage of this characteristic to provide technical service and conduct sales promotion of AXEEV® products, and introduce new mixture products in the markets where herbicide resistant weeds are becoming big problem. As a result, AXEEV® comes to be recognized among growers as an essential product for controlling herbicide resistant weeds and established the position in the market. We also have promoted sales in countries where it is

on the market, and are making effort to expand the market by expanding its application to other crops while increasing the number of countries where it is registered. Now AXEEV® products are registered in 21 countries and distributed through our partners in each country. AXEEV® products are also developed for non agricultural use, distributed as an herbicide for turfgrass in golf courses in Japan and South Korea, and we are working to expand sales. Global agricultural chemicals market is continuing to grow, and is expected to expand in the future. Due to such good conditions in the market, net sales of AXEEV® have increased significantly, reaching 35.5 billion yen in FY2021 and 54.4 billion yen in FY2022. During the last ten years from 2013 to 2022, CAGR (compound annual growth rate) has continued to grow at a very high rate of 25%.

Registration status of AXEEV®



Movement in Net Sales of AXEEV®



Year of Launch in Major Countries

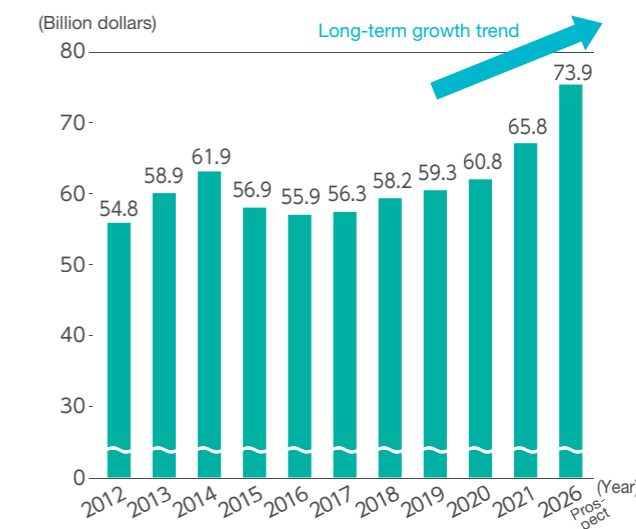
Year	Country
2011	Australia
2012	U.S.
2017	Argentina
2019	India
2020	Brazil

Future Prospects

AXEEV® largely contributes to the performance of Kumiai Group. In the current Mid-Term Business Plan that started in FY2021, maximizing the share of AXEEV® in countries where the products are distributed and expanding sales in countries where it is newly registered is positioned as priority measures for our agricultural chemicals business outside of Japan. The world agricultural chemicals market continues to grow, and in recent years, the market has expanded especially around South America and Asia. We expect this growth trend to continue for a long time due to increase in demand for grains and food with growth of global population and changes in eating habits. AXEEV® has already been registered as an agricultural chemical in India and Brazil, where the agricultural chemicals market is expected to grow. Our net sales target of 35 billion yen for FY2023 was reached ahead of schedule in FY2022. We will continue to expand the sales of AXEEV® in new countries and develop new mixture products suitable for each market. During FY2023, the final year of the current Mid-Term Business Plan, our aim is to reach net sales of 72.9 billion yen, which would be another leap forward. We have enhanced our presence in the world as an

agricultural chemical company with advanced R&D capabilities. We would like to contribute to global food security and environmental conservation through our business.

Changes in the global agricultural chemicals market



Source: AgbiolInvestor

Voice

Synthesis Researcher of AXEEV® NAKATANI Masao

(Currently: Research & Development Division, Manager, Intellectual Property Section)

While planting area of GMO crops had expanded, we focused on soil-applied herbicides which had stable position in the market, and started exploratory research. We were disappointed in the early stages of research because all plants, including crops, were killed by candidate compounds. However, based on the large amount of data and past know-how accumulated from years of research including such study, we could establish a hypothesis, conduct verification and perform continuous examination, ultimately resulting in the discovery of AXEEV®. We were able to conduct synthesis of candidate compounds, screening trials, and early stage safety assessment studies in parallel, targeting to carry out field trials in the season in U.S. I believe it lead the success of optimization research in short period.



Development Researcher of AXEEV® YAMAJI Yoshihiro

(Currently: General Manager, Corporate Strategy Office)

At the time, it was said that no herbicides other than glyphosate would be needed after the introduction of genetically modified crops. However, we recognized that glyphosate has a short effective period, so we aspired to develop a soil-applied herbicide with a long residual activity and for which it is more difficult to develop resistance. Development of AXEEV® required the technological know-how and efforts of many people, and was a great achievement by Kumiai as a company. This accomplishment has been passed on to the next generation and it continues evolving into new opportunities.





Agricultural Chemicals and Agriculture-Related Business (Japan)

Kumiai got its start in 1928 when the Citrus Industry Association began manufacturing agricultural chemicals. Since that time, we have been providing safe and secure agricultural chemical products based on integrated processes; from chemical discovery through to manufacturing and sales. The Japanese agriculture market is facing issues such as a labor shortage due to aging farmers and lack of successors, as well as an increase in the number of abandoned fields. By developing and spreading new products and technologies for resolving these issues, it is our desire to support stable food production and sustainable agriculture.

IWATA Kouichi Managing Executive Officer, Head of Domestic Sales Division

Opportunity	Strength
<ul style="list-style-type: none"> Labor shortage due to declining population in Japan, aging farmers, and lack of workers Increasing demand for agricultural chemicals that are gentler on the environment and physical pest control 	<ul style="list-style-type: none"> Inhouse development of active ingredients and products Strong sales network in Japan

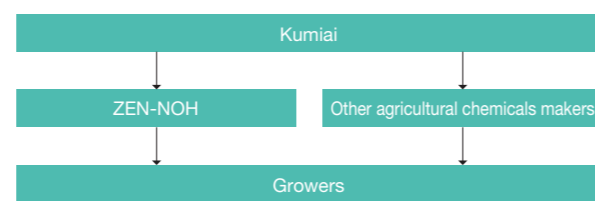
Japan's Agricultural Chemicals Market

Although there is a slow decline in the area of cropland in Japan, since the demand for feed rice is increasing and farmers are aging, there is a growing need for agricultural chemicals to help reduce the agricultural workload, and to improve production efficiency as cropland is consolidated and streamlined. Therefore, the market remains around at around 340 billion yen. The Ministry of Agriculture, Forestry and Fisheries also formulated the "Strategy for Sustainable Food Systems, MeaDRI" in 2021 to improve both the productivity and sustainability of food, agriculture, forestry, and fishing industries. They set targets such as achieving zero CO₂ emissions in the agriculture, forestry, and fishing industries, and a reduction in the dosage of chemical pesticides by 50% in regards to risk, requiring the development and spread of new agricultural chemicals and technologies.

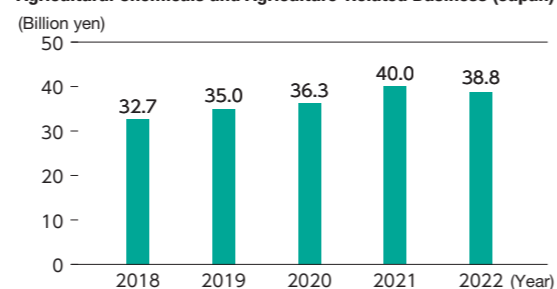
Business Contents

Our product portfolio includes hundreds of various herbicides, fungicides, and insecticides for meeting the different needs in the market, which change according to region. We also have expert sales persons and engineers spread across our seven bases in Japan who can propose agricultural chemicals according to the region, and provide follow-up care. We sell products that we develop and manufacture to the National Federation of Agricultural Cooperative Associations (ZEN-NOH), and these products are provided to growers by JA throughout Japan. We also sell our proprietary active ingredients to other manufacturers for agricultural chemicals, and are endeavoring to maximize sales and profits not just from our own products, but also by having our active ingredients adopted into other companies' products. In addition to our products for cropland, Kumiai Group also sells products for non-cropland such as golf courses, highways, and railroad tracks. Although the market environment has become strict, net sales from our agricultural chemicals business

in Japan is trending upwards centering on our new products. Net sales for FY2022 reached 38.8 billion yen.



Agricultural Chemicals and Agriculture-Related Business (Japan)



Business Strategy

① Expansion of existing business

● EFFEEDA®

Our herbicide for paddy rice EFFEEDA® is our proprietary active ingredient and have an efficacy to a wide range of weeds including resistant weed against conventional herbicides, was which we began from 2019. EFFEEDA® enabled us to take back the top share of one-shot herbicides for paddy rice in 2021, which had been taken over by our competitors in recent years. In 2022, we launched a new product on the market (SHINZUI Z), and expanded our shipping area to 340,000 ha, strengthening our position at the top of the market. We will continue our



efforts to increase its sales as an active ingredient capable of leading our business in Japan.

● DISARTA®

The fungicide for paddy rice DISARTA® (product name: BOON®) is a proprietary product which acts as a disease resistance inducer that enhances the disease response of plants and makes them less susceptible to disease. It is highly effective in against "rice blast," which is a serious disease with paddy rice. We began selling DISARTA® in 2021, and placed the new mixed formulation BOON® ALLES® (ALLES® is a registered trademark of Sumitomo Chemical Co., Ltd.) on the market in 2022, which is steadily growing. The estimated area of use as our sales of paddy rice seeding box treatment products have reached around 250,000 ha. We will continue to develop and sell new mixed formulations including DISARTA®, focusing on increasing sales and profits in other priority fields in addition to our main herbicide for paddy rice.



● SOLISTE

SOLISTE is an herbicide for turf marketed by RIKENGREEN, which is our group company. It can be used for fairways and roughs at golf courses, and it is highly effective against annual bluegrass, which is a difficult-to-control weed. Kumiai Group also develops and sells various production materials not only for cropland but also for non-cropland. We will proactively develop our proprietary products to expand and strengthen our business.

② Expansion of research and business domains

To overcome issues facing the domestic agriculture market, we have initiatives in place for establishing a sustainable agricultural production system by actively participating in smart agriculture aimed at improving the efficiency of farm work and reducing labor. We are working to promote the use of agricultural machinery (such as drones, radio-controlled boats, and automatic water supply systems) in combination with our proprietary labor-saving formulation, MAMETSUBU. To help reduce the load on the environment in harmony with the "MeaDRI," we are utilizing microbial pesticides and natural chemicals, and are promoting the use of MAMETSUBU for drift reduction as a response to positive listing. We are working on the development of new microbial pesticides, and will make effort to continue predicting the market while again promoting our existing products.

● Flupentiofenox

We are proceeding with the development of Flupentiofenox for new miticides. Mites that are resistant to conventional agricultural chemicals have become an issue in Japan, so this is drawing attention as a miticide with a new mode of action. We are preparing to launch this to expand our business into the horticultural field.

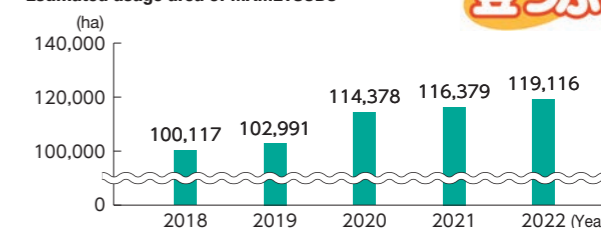
Looking to the Future

Paddy rice is the core of our domestic agricultural chemicals business. Therefore, we will work to further expand sales by increasing our lineup of mixed formulations with EFFEEDA® and DISARTA®, both of which we developed inhouse.



We will also further expand our market share of one-shot herbicides for paddy rice, which is led by EFFEEDA®. To maintain our position at the top of the market for one-shot herbicides for paddy rice, which we have held for two consecutive years since 2021, we will work to expand sales of products containing proprietary active ingredients, and starting in 2023, we will introduce LAOH and AKATSUKI to the market, which are new mixed formulations of EFFEEDA® to establish a base for making these more popular. For paddy rice seeding box treatment products, we will endeavor to expand our market share, which is led by DISARTA®. In 2023, BOON® BUZZ SC, which is a new mixed formulations of DISARTA®, will be put on the market in Hokkaido to establish a base for its widespread use. In the non-cropland field, we will strive to grasp market trends and respond accurately and promptly to changes in the sales environment so that we can expand sales of products containing proprietary active ingredients such as SOLISTE and SPADA. Moreover, we are striving to raise the overall level of our agricultural chemicals business in Japan by maximizing our other inhouse developed products. In response to the "MeaDRI," not only are we promoting and expanding sales of our proprietary labor-saving formulation, MAMETSUBU, we will continue strengthening cooperation with related organizations like ZEN-NOH and smart agriculture-related manufacturers to develop comprehensive solutions that reduce labor and improve efficiency through a combination of drones for agricultural use, automatic water supply equipment, and radio-controlled boats. In addition, since there is a need to reduce the impact of chemical pesticides on the environment, our IPM efforts include the use of microbial pesticides, remote sensing technology, the spread of low-drift MAMETSUBU formulations, and advanced agricultural production materials (biostimulants and new microbial pesticides), which we will promote for social implementation. We will continue making effort to improve productivity and agricultural sustainability while ensuring harmony with the environment by providing essential products for both cropland and non-cropland.

Estimated usage area of MAMETSUBU



Agricultural Chemicals and Agriculture-Related Business (Overseas)

To contribute to improve the productivity of agricultural products on a global scale, Kumiai is promoting the wide use of products, especially our proprietary products, not just in Japan, but around the world.

We will contribute to improve global food security by utilizing our strengths in R&D capabilities and with sales systems in response to changes in the agricultural environment including the growing global population and increased pests as a result of climate change.

UCHIDOI Toshiharu Representative Director, Senior Managing Executive Officer, Head of Overseas Sales Division

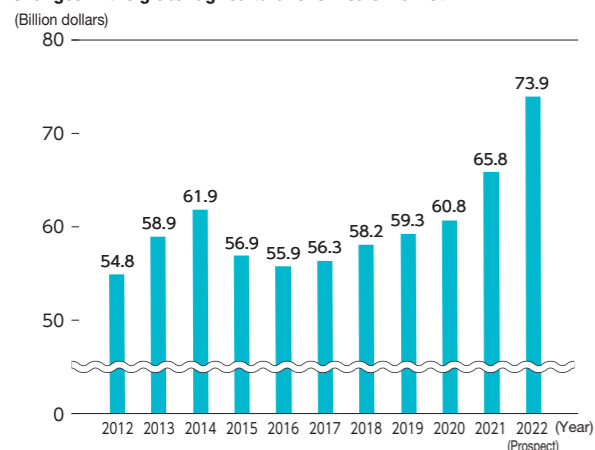


Opportunity	Strength
<ul style="list-style-type: none"> Increasing demand for food as the world population grows Spread of resistant weeds against conventional herbicides Increasing demand for feed grains as dietary habits change Increasing demand for products that are in harmony with the Farm to Fork strategy 	<ul style="list-style-type: none"> In-house development of active ingredients and products System of cooperation with local distributors

Global Agricultural Chemicals Market

The global agricultural chemicals market continues to grow on the back of a growing world population. In recent years, the market has expanded mainly in South America and Asia. This growth trend is expected to continue, backed by increasing demand for grains due to population growth and changes in dietary habits. According to AgbiInvestor, in 2022, the agricultural chemicals market expected to see significant growth on a monetary basis over the previous year as a result of higher agricultural chemical prices caused by higher grain prices and soaring raw material costs. Although the growth rate in 2023 is not expected to be the same as in 2022, the market is expected to continue growing over the medium to long term.

Changes in the global agricultural chemicals market

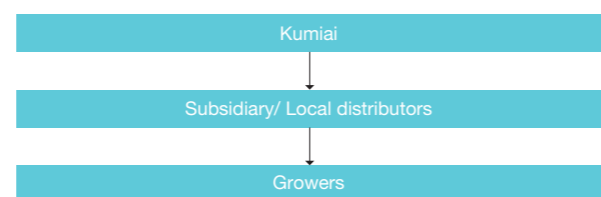


Source: AgbiInvestor

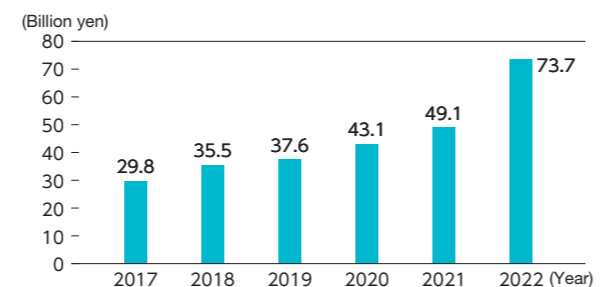
Business Contents

Kumiai sells our proprietary products to more than 50 countries around the world. Net sales with our Agricultural Chemicals and Agriculture-related Business for FY2022 reached 73.7 billion yen outside Japan as growth continues due to a favorable market environment.

We sell to growers in collaboration with subsidiaries, affiliates, and distributors that have strong sales networks in each market. Active ingredients that we sell are commercialized by distributors, which are then sold to local retailers and growers. In addition to selling single formulation, we also develop and sell mixed formulations that combine other ingredients, such as active ingredients from distributors. We also sell products that are based on our unique technologies to growers through distributors, and we are actively working to increase added value by differentiating our products from our competitors. In terms of sales, employees of Kumiai and overseas subsidiaries visit local markets in order to conduct surveys, identify customer needs, and propose effective usage suited to the region, leading to develop new markets.



Agricultural Chemicals and Agriculture-Related Business Sales (Global)



Business Strategy

① Expanding sales of proprietary products

● AXEEV®

AXEEV® is field crop herbicide that we launched in 2011 mainly for use with soybeans, corn, wheat, and sugar cane. In addition to the favorable market environment including soaring grain prices, it is positioned as an essential product for controlling conventional herbicides resistant weeds on croplands. As a result, sales have been strong, which is driving Kumiai's performance. In FY2022, net sales reached 54.4 billion yen, well beyond the expected sales of 35 billion yen set in the Mid-Term Business Plan. We expect demand for gains to continue increasing in the future. We will take advantage of this increasing demand to contribute to improve food productivity for maximizing our business.

● EFFEEDA®

EFFEEDA® is currently marketed mainly for paddy rice in Japan, so we will strengthen its development in other countries. In addition to the launch of new mixed formulations and further expansion of sales in South Korea, where we are already marketing the product, we will promote development in other regions, including Europe.

● DISARTA®

The fungicide for paddy rice DISARTA® has been sold in Japan since 2021, and will be launched in Korea in 2023. The method for paddy rice cultivation in Korea is similar to in Japan, so demand for fungicides that can control diseases such as rice blast has been on the rise. We will proceed with production and procurement adjustments to ensure vertical start-up from the first year of sales.

● Prohexadione-calcium

Prohexadione-calcium is a plant growth regulator that was launched in 1994. It is one of our long-sellers, and sales continue increasing over 20 years due to its excellent performance and safety. We will continue to expand sales, mainly in the European wheat market and fruit market in Brazil.



One of our products in Europe REGALIS®
Picture provided by BASF : REGALIS® is a registered trademark of BASF

② Ensuring diversity of sales routes

● Asiatic Agricultural Industries (AAI)

In February 2021, we acquired AAI, which was a manufacturer and distributor of agricultural chemicals in Singapore, as a subsidiary. By strengthening and integrating our and AAI's sales network in Asia and Africa, we will strengthen sales capabilities of our Group in countries outside Japan. We are aiming to further develop both companies through synergy effects such as promotion of product development based on an understanding of local market information and needs, cooperation in performance evaluation in product development, and mutual outsourcing of formulations.



● PI Kumiai Private Ltd.

In June 2017, PI Kumiai Private Ltd. was established as a joint venture company with PI Industries Limited in India, and established a local manufacturing and distribution system for herbicide for paddy rice NOMINEE® in India. We will make continuous effort to maintain and expand NOMINEE® sales by maintaining product quality as original product and also strengthening competitiveness against generic products.

Looking to the Future

Since its launch in 2011, sales of the field crop herbicide AXEEV® have steadily increased, becoming a significant pillar of our business with net sales reaching 54.4 billion yen in FY2022. We will ensure to capture the increase in demand based on a favorable market environment, which is expected to continue in the future, and will implement measures against generic products in order to maximize sales and profits. As for the herbicide EFFEEDA® that had mainly been sold on the market in Japan, in 2021, we applied to register it for use in the European wheat market as an initiative for further growth. Registration will be completed sometime in the future, but we will promote its development and establish a distribution system to maximize global sales of EFFEEDA®. We will also expand sales and proceed with development of the fungicide DISARTA® and the plant growth regulator prohexadione-calcium in order to grow our overall business in overseas market. In addition to utilize AAI which became our subsidiary in 2021, to strengthen our sales capabilities especially in Asia and Africa, we will also continue to consider acquiring other companies' products as a discontinuous measure.



Fine Chemicals Business

Kumiai Group has positioned Fine Chemicals Business as the second pillar following Agricultural Chemicals and Agriculture-related Business. Fine Chemicals Business includes four segments, which are the Chlorination Business, Advanced Chemicals Business, Expanded Polystyrene Business, and Specialty Chemicals Business, and we develop a wide range of businesses in different fields. To ensure a safe and prosperous life for people, we are contributing toward achieving SDGs and a recycling-based society through the development and supply of chemical products used in infrastructure and advanced technologies.

URUSHIBATA Ikumi Managing Executive Officer, Head of Chemical & Specialty Products Sales Division

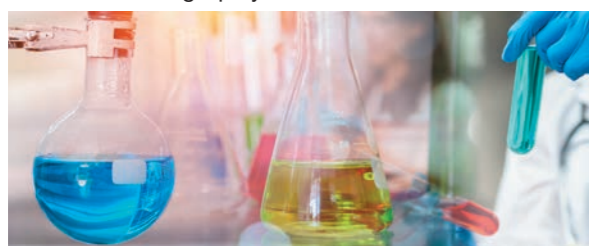
Opportunity	Strength
<ul style="list-style-type: none"> Increasing demand in advanced fields such as pharmaceuticals, fine chemicals, and semiconductors (Chlorination / Advanced chemicals) 	<ul style="list-style-type: none"> Organic synthesis technologies cultivated through the manufacturing of active ingredients in agricultural chemicals Integrated research and development system from compound discovery to development of new products

Business Contents

Kumiai is engaged in R&D, manufacturing and sales on Fine Chemicals used in various aspects of daily life by applying organic synthesis technology that we have cultivated over many years. Many of our fine chemical products are highly recognized in upstream industries. Although our company name does not appear on the market, they are used in everyday items such as smartphones circuit boards, aircraft and automobile parts, and waterproof materials in roads and buildings.

① Chlorination Business (IHARANIKKEI CHEMICAL INDUSTRY)

Intermediates for agricultural chemicals and pharmaceuticals, dyes, chlorotoluene and chloroxylene derivatives for high-polymer materials.



② Advanced Chemicals Business (K-I CHEMICAL INDUSTRY and Kumiai)

Bismaleimides as raw materials for resins with high heat resistance used in electronic materials and urethane-related products.



③ Expanded Polystyrene Business (Ihara Construction Industry)

Packaging materials for agricultural and fishery products, and electrical appliances, home appliance parts, building materials, land settlement prevention measures.

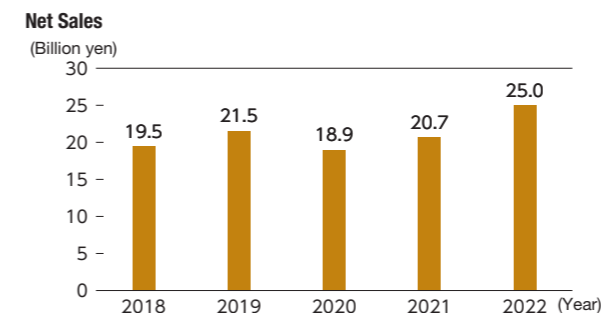


④ Specialty Chemicals Business (K-I CHEMICAL INDUSTRY and RIKENGREEN)

Raw materials used in disinfectants for medical equipment, environmental hygiene agents used in wet wipes and for disinfecting hot spring baths, and stripping and coating agents used to manufacture toilet paper.



Net sales with Fine Chemicals Business decreased in FY2020 due to the impact of COVID-19, but has been trending toward recovery since that time. In FY2022, there was strong demand for raw materials for aramid fiber in the Chlorination Business, and for bismaleimides and urethane-related products in the Advanced Chemicals Business, with the Fine Chemicals Business as a whole reaching a record high of 25 billion yen.



Business Strategy

Expanding Existing Business by Investing Management Resources to Growing Business

Demand for Chloroxylene derivatives, which is our main product for the Chlorination Business, has tightened due to a global increase in demand for raw materials for aramid fiber. Therefore, we viewed this as a business opportunity to establish a manufacturing base in Thailand in 2018 for increasing production. Later, the second phase of our investment got underway with the aim of expanding product lines. A second plant began operating in January 2021, which completed expansion of our production system.

The COVID-19 crisis that started near the end of 2019 impacted customers such as the automobile industry, resulting in production adjustments, which lead to less demand for aramid fiber raw materials than expected in recent years. However, demand has increased worldwide, and recovery from the COVID-19 pandemic is moving forward, shifting completely to a growth trend.



Iharanikkei Chemical (Thailand)

Expanding Business Domains

1. Cultivating new business and expanding contracted manufacturing business

Through our unique technologies based on organic synthesis cultivated from manufacturing agricultural chemicals, we develop new products utilizing our advanced technologies, discovering new demands, and expanding our contracted manufacturing business.



2. Strengthening our development base

In addition to promoting the discovery of new themes through joint research with external research institutes including universities and the National Research and Development Agency, as an organizing foundation for strengthening R&D capabilities to support these, we will endeavor to improve research and development systems in each business field while pioneering new markets.

3. Establishment of the New Material Research Laboratory

The New Material Research Laboratory was established at the Chemical Research Institute for maximizing fine chemicals business. We are able to create synergy through cross-sectional Group initiatives based on collaboration among researchers from Kumiai and Group Companies. We are looking forward to launching new original products that incorporate the know-how and technologies of each company.

Looking to the Future

Our Fine Chemicals Business includes various products in the upstream industries of the value chain. From now, we will expand our business by developing new products including semiconductor-related materials with higher added value as well as high-performance materials that utilize our Group's unique technologies, and by promoting the development of more profitable downstream products. By creating new value for realizing a sustainable society, we will also endeavor to realize our Ultimate Goals of being "Company group that is able to adapt flexibly to support affluent lifestyle through unique technologies and that contributes toward the sustainable development of a society in harmony with nature."

We feel it is necessary for us to establish an organization that allows us to discover fields that are expected to expand in the future and that enables us to respond flexibly.

Based on our R&D capabilities, we will improve our systems so that we can access cutting-edge technologies and respond quickly to customer needs, and make effort to expand our Fine Chemicals Business.

Production / Procurement

Kumiai owns unique production technologies and production facilities that make it possible for us to produce and supply active ingredient in agricultural chemicals, formulations, and fine chemicals based on our development technologies for agricultural chemicals. The quality management system at each factory handles manufacturing and quality control as they endeavor to improve their quality assurance system.

As the cost of raw materials and fuel are soaring higher, we are making efforts to achieve stable supply and safe operations. In addition to stabilizing our supply chain and CSR procurement, we will implement measures for reducing greenhouse gas emissions by considering and implementing environmentally-friendly materials and equipment.

IKAWA Teruhiko Director, Managing Executive Officer, Head of Production & Procurement Division



Factories as Manufacturing Capital

Shizuoka Factory

The Shizuoka Factory is our production base for chemicals centering mainly on agricultural active ingredients (technical grade). It handles optimization of production for stable supply, and produces and supplies organic compounds according to the needs of various fields including pharmaceuticals, agricultural chemical intermediates, and high-performance chemicals to the world. It has acquired ISO/IEC17025 in addition to ISO9001 and ISO14001, and manufactures and supplies high-quality active ingredients for agricultural chemicals.



Kogota Factory

The Kogota Factory started as a dustable powder factory in 1962, and is currently our production base for herbicide granules used for paddy rice and crop field, MAMETSUBU, water-dispersible granules for Eastern Japan, and flowable formulations for insecticides and fungicides. It manufactures high-quality, environmentally-friendly products on the premise of "Safety First" in harmony with the basic policies of ISO9001 and ISO14001.



Tatsuno Factory

Tatsuno Factory has been operating safely as our production base in West Japan since 1962. It is a multi-purpose factory capable high-variety and low-volume production that includes production facilities capable of handling various formulations such as flowable formulations, granules, wettable powder, and water-dispersible granules. It has acquired ISO9001 and ISO14001 certification, and is focused on quality assurance and environmental conservation as it creates products that are trusted by customers.



In October 2022, a new plant for water-dispersible granules was completed. We will utilize the capabilities of this new advanced, and environmentally-friendly factory to achieve safe operation and stable supply.



New plant for water-dispersible granules

Proprietary production technology

① Establishing and improving manufacturing technology in collaboration with research institutes

Thanks to the close cooperation between factories and research institutes that are production sites, we are able to establish manufacturing methods for our factories and quickly perform upscaling at the laboratory level; from discovering new agricultural chemicals to optimizing synthesis methods for industrial manufacturing, through to actual production. This is the key to our production system. Factories and research institutes also collaborate to reduce manufacturing costs and improve/optimize production efficiency.

Moreover, when outsourcing production, engineers from Kumiai visit the actual site to give instructions to ensure the stable supply of high-quality products.



Process Chemistry Research Center

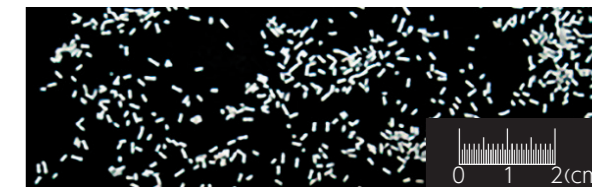
② Organic synthesis technology

At our Shizuoka Factory, there is a multipurpose plant capable of handling small- to large-scale work, as well as a large-scale clean disposal treatment facility for protecting the environment. These facilities allow us to utilize the organic synthesis technologies that we have accumulated over our years of experience based on our manufacturing technology related to agricultural chemical active ingredients so that we can respond flexibly. Through these facilities and technologies, we are handling consigned synthesis of organic compounds in harmony the needs of customers in various fields.

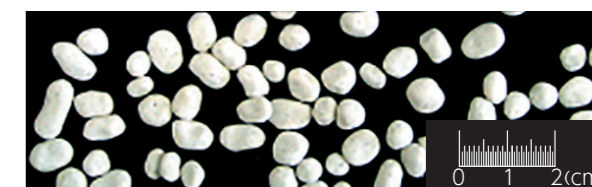
③ Proprietary formulation technology (MAMETSUBU)

Our unique formulation MAMETSUBU is a labor-saving formulation that can be spread manually from paddy field ridge, applied using a package bag, ladders, engine duster, unmanned helicopter, or drones. The application rate per 1 ha of paddy fields is also low at 2.5 kg, which reduces CO₂ emissions during transportation and helps the environment. MAMETSUBU granules are relatively large at 3 to 8 mm compared to conventional granules of 0.8 to 1.2 mm. We utilize our own production technology to produce these, and commercialization is handled using our specialized manufacturing and packaging equipment. For our JUMBO formulation that uses MAMETSUBU,

our latest equipment is used to achieve accurate and high-speed weighing and packaging that allows for stable production supply.



Standard granules



MAMETSUBU

④ Contracted manufacturing based on our formulation technology

We also handle contracted manufacturing for formulations at each factory according to customer requests based on our accumulated formulation techniques and specialized capabilities.

Supply Chain

Regarding the procurement of raw materials, we are utilizing our Group network including our Group Companies around the world and our bases outside Japan to ensure alternative procurement suppliers for reducing the impact on the ever-changing fine chemical raw material market. We are also strengthening our production system so that it can respond to global development such as decentralizing production bases for organizing stable procurement, production, and supply systems.

We also have established our "Basic Policy on CSR Procurement" and "CSR Procurement Guidelines," and are promoting CSR procurement in harmony with these.

Future Measures

The costs of raw materials and energy are expected to remain high due to the rising prices of crude oil and naphtha. Kumiai Group will strive to reduce costs and ensure stable supply by efficiently producing active ingredients and formulations and improving production conditions. While maintaining a secure supply system based on safe operation, we will strive to strengthen capital investment and factory capabilities for ensuring efficient production. We will also implement measures for reducing greenhouse gas emissions through the use of environmentally-friendly raw materials and packaging and related equipment. With regard to procurement, Kumiai Group will work to ensure a stable supply chain and practice CSR procurement.

Research and Development



Since our foundation, Kumiai have grown by using our strength of research and development to create new agricultural chemicals.

Through our integrated research and development system, from exploratory synthesis, biological evaluation, formulation, through to the establishment of industrial manufacturing methods for new compounds, we have been promoting the development of unique products with added value that can contribute to stable food supply. We are also focused on developing fine chemicals such as pharmaceutical intermediates and high-molecular materials using our highly safe agricultural chemical development techniques.

OKAWA Tetsuo Director, Managing Executive Officer, Head of Research & Development Division

R&D Technology

Synthesis of new compounds and discovery techniques

New compounds are the starting point for developing agricultural chemicals. These are synthesized using the organic synthesis techniques we have accumulated over many years. We will also use information obtained from AI to predict the movement of the compounds in the environment by measuring physicochemical properties, and the affinity of the compounds to the location in the pest or weed where the compounds will act, to create innovative new agricultural chemicals by conducting exploration and optimization studies.



Biological evaluation

We create highly effective, safe, and easy-to-use agricultural chemical products with high biological evaluation capabilities based on our accumulated data and know-how.

We own testing sites including greenhouses, paddy fields and croplands in Shizuoka Prefecture and other sites in Japan such as in the Tohoku region and Hokkaido as well as sites in other countries, which enables us to conduct trials under different environments for evaluating new compounds and formulation.



Formulation technology

We create products that have high performance, are safe, and reasonably priced based on formulation technologies that make it possible for us to design safe agricultural chemical formulations while effectively extracting the performance of the active ingredients. Using our advanced formulation technologies, we have established our unique formulations such as MAMETSUBU and the slow-release of active ingredients.



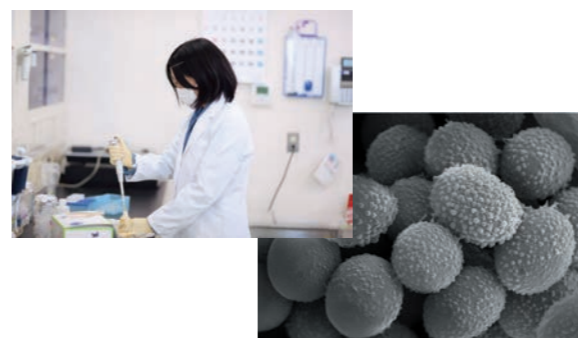
Process chemistry and contracted synthesis technology

Kumiai has advanced engineering technology enabling us to swiftly perform research and development of manufacturing processes for new compounds. In addition to development of manufacturing technologies and industrialization at manufacturing scales according to the development phase, we also study the design of equipment and disposal treatments for achieving safe and low-cost manufacturing. We have also established a research system for fine chemicals such as pharmaceuticals, agricultural chemical intermediates, and high-performance chemicals so that we can perform organic synthesis according to the need.



Developing and fostering new technology

We will work to accelerate the creation of pipeline active ingredients for creating new agricultural chemicals. In addition, we promote development of “microbial pesticides” and “bio-stimulants” to foster new environmentally-friendly products and technologies that harmonize with “the Strategy for Sustainable Food Systems, MeaDRI,” climate change risks and the EU’s “Farm to Fork Strategy.” We will endeavor to develop technologies for suppressing greenhouse gas generated from paddy fields and new technologies for improving energy efficiency at chemical factories in order to promote research for supporting environmentally-friendly and sustainable companies.

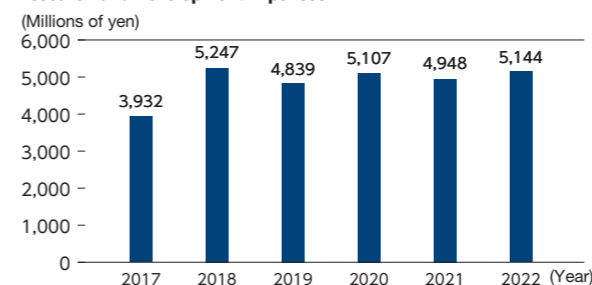


Strengthening Our Research and Development System

Investment in R&D

Research and development is the source of our Company’s growth, and we continue to invest in it. In addition to capital investment, we also proactively make investments in studies needed for development as well as intellectual properties.

Research and Development Expenses



New Chemical Research Institute SHIP

Currently, our New Chemical Research Institute is under construction in the Shimizu Ward of Shizuoka City where Kumiai was founded, which integrates our three Chemical Research Centers in Shizuoka Prefecture (New Molecule Research Center (Iwata City), Formulation Technology Research Center (Shizuoka City), and Process Chemistry Research Center (Fuji City)). It is named the Shimizu Innovation Park (SHIP) based on in-house selection, and full-scale operation is expected to begin in the fall of 2023. We are sure that integrating these research centers will create synergy through enhanced collaboration among different fields.



Shimizu Innovation Park (SHIP) (Conceptual drawing)

Establishment of the New Material Research Laboratory

In Fine Chemicals Business, we have established the New Material Research Laboratory at the Chemical Research Institute for promoting further developing our core business, which are the Chlorination Business and Advanced Chemicals Business. This laboratory includes researchers from our Group Companies in addition to Kumiai to promote initiatives through the utilization of the knowledge, know-how, and technologies owned by each company. By deepening collaboration within Kumiai Group and with outside institutes, we will develop new fields and move business downstream.

Human Resource Development

We are working to develop human resources because these are the driving force behind our research and development. Not only have we hired researchers with specialized knowledge, we are implementing measures for improving skills such as supporting studying abroad and the acquiring doctoral degrees. We will continue to develop human resources who will serve as the foundation for future research and development.

Comment from our researcher

Chemical Research Institute
Process Chemistry Research Center
New Material Research Laboratory
Researcher: MUTO Takashi



In addition to the synergy from integrating our research centers, this laboratory is a place where we can experience synergy through collaboration among Kumiai Group Companies. Sharing information about our technologies and know-how among laboratories, which were

once independent, brings fresh ideas and proposals from various perspectives, which is inspiring.

Creating new raw materials and new technologies is not easy. However, I am determined to continue making effort to overcome various challenges in order to make the Fine Chemicals Business the second pillar for Kumiai while also enjoying the creation process itself.



Materiality

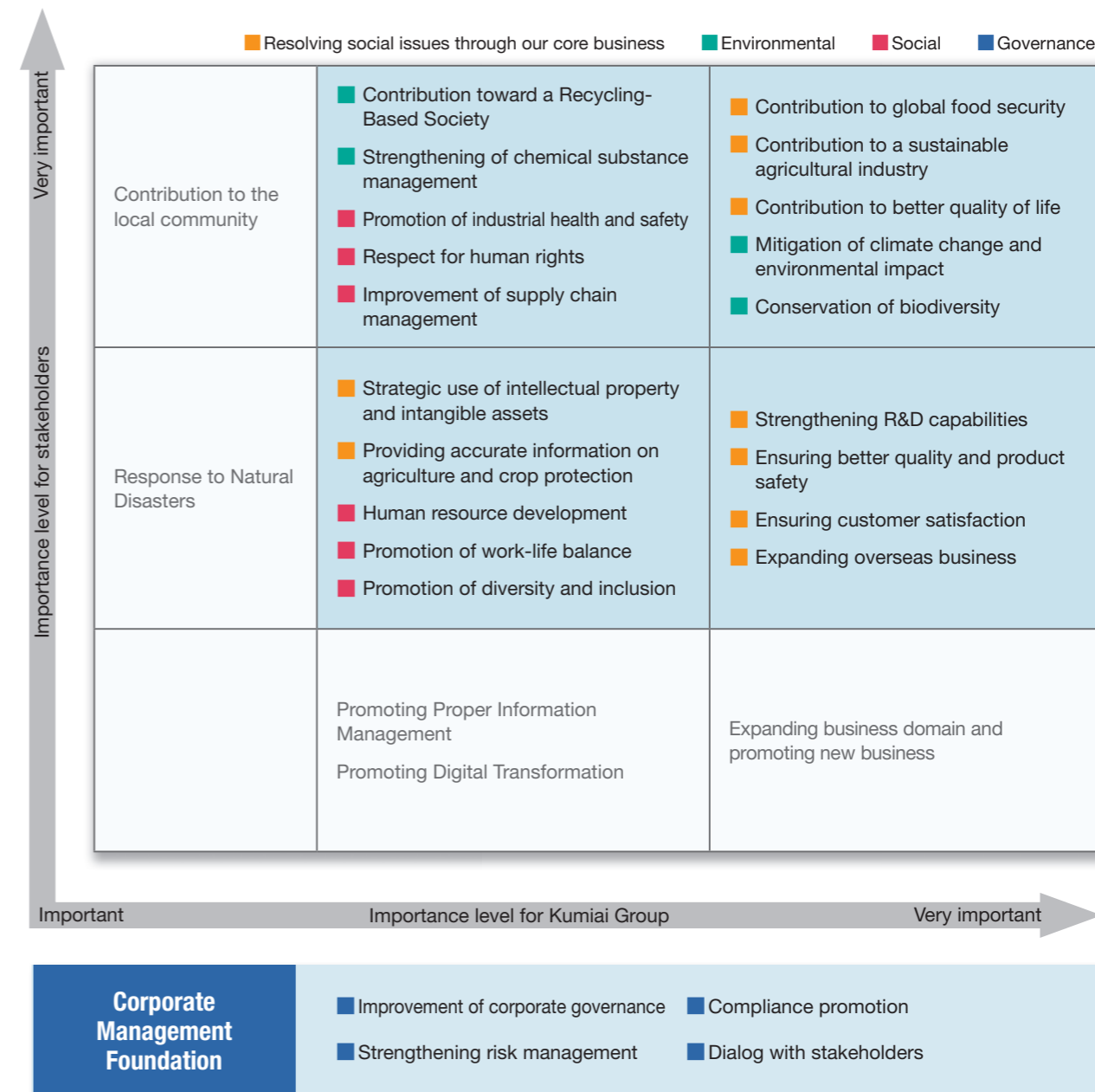
Kumiai Group has set “Company group that is able to adapt flexibly to support affluent lifestyles through unique technologies and that contributes toward the sustainable development of a society in harmony with nature” and “Advanced chemical manufacturer that contributes to agriculture, which supports stable food supply, and develops innovative technologies and unique business domains” as our Ultimate Goals in the next 20 to 30 years later, and have specified materialities (important issues) as initiatives that need to be taken to achieve these.

Process for Identifying Materiality






Materiality Matrix

We evaluated “Importance to Kumiai Group” and “Importance to stakeholders” on a three-point scale, and formulated a matrix for each proposed materiality.



Initiatives and KPIs for Materiality

	Materiality	Initiatives	FY2022 results	FY2026 targets	FY2030 targets	Relationship with SDGs
Resolving social issues through our core business	Contribution to a sustainable agricultural industry	<ul style="list-style-type: none"> Contribution to smart agriculture through products that help reduce energy and labor 	<ul style="list-style-type: none"> Products that contribute toward smart agriculture: Expansion of MAMETSUBU Number of new launched products: 1 MAMETSUBU product Agricultural land area where MAMETSUBU was used: 119,000 ha, 7.7% of rice paddy land in Japan 	<ul style="list-style-type: none"> Products that contribute toward smart agriculture: Expansion of MAMETSUBU Number of new launched products: 5 MAMETSUBU products (Total from FY2022) Agricultural land area where MAMETSUBU is used: 1% increase in paddy rice cultivation land in Japan (Compared to FY2022) 	<ul style="list-style-type: none"> Products that contribute toward smart agriculture: Expansion of MAMETSUBU Number of new launched products: 2 MAMETSUBU products (Total from FY2027) Agricultural land area where MAMETSUBU is used: 2% increase in paddy rice cultivation land in Japan (Compared to FY2022) 	
	Strengthening R&D capabilities	<ul style="list-style-type: none"> Strengthening R&D capabilities 	<ul style="list-style-type: none"> Number of patent applications: 80 	<ul style="list-style-type: none"> Number of patent applications: 100 	<ul style="list-style-type: none"> Number of patent applications: 120 	
Environmental	Mitigation of climate change and environmental impact	<ul style="list-style-type: none"> Reducing greenhouse gas emissions for the whole Kumiai Group 	<ul style="list-style-type: none"> Greenhouse gas emissions from seven group companies (Scope 1 and 2): 66,124 t-CO₂ 	<ul style="list-style-type: none"> Greenhouse gas emissions from seven group companies (Scope 1 and 2): 30% reduction by FY2030 compared to FY2019 	<ul style="list-style-type: none"> Greenhouse gas emissions from seven group companies (Scope 1 and 2): 30% reduction by FY2030 compared to FY2019 	
	Conservation of Biodiversity	<ul style="list-style-type: none"> Contributing to biodiversity through forest conservation Contribution to biodiversity 	<ul style="list-style-type: none"> Forest preservation in Fukushima, Hokkaido 	<ul style="list-style-type: none"> Support for forest tree-planting activities in Fukushima, Hokkaido: Once a year Creation and maintenance of biotope 	<ul style="list-style-type: none"> Forest infrastructure development in Fukushima, Hokkaido Creation and maintenance of biotope 	
	Contribution toward a Recycling-Based Society	<ul style="list-style-type: none"> Reducing industrial waste 	<ul style="list-style-type: none"> Total amount of generated industrial waste: 2,097 t Amount of landfill waste: 45 t (Landfill rate: 2.2%) Amount of waste recycled: 803 t (Recycling rate: 94.7%) 	<ul style="list-style-type: none"> Waste reduction Promoting zero waste emissions: Landfill disposal rate of 1% or less 	<ul style="list-style-type: none"> Waste reduction Promoting zero waste emissions: Landfill disposal rate of 1% or less 	
Society	Promotion of Industrial Health and Safety	<ul style="list-style-type: none"> Preventing occupational accidents 	<ul style="list-style-type: none"> Number of accidents with lost time: 1 (Among occupational accidents, number of cases with at least one work day lost by a Kumiai employee) 	<ul style="list-style-type: none"> Number of accidents with lost time: 0 	<ul style="list-style-type: none"> Number of accidents with lost time: 0 	
	Respect for Human Rights	<ul style="list-style-type: none"> Greater awareness of human rights 	<ul style="list-style-type: none"> Human rights education and harassment training: For all managers: Once 	<ul style="list-style-type: none"> Implementation status of human rights education and training Employee coverage rate: 100% At least once a year for each employee 	<ul style="list-style-type: none"> Implementation status of human rights education and training Employee coverage rate: 100% At least once a year for each employee 	
		<ul style="list-style-type: none"> Eliminating all forms of harassment 		<ul style="list-style-type: none"> Implementation status of harassment training Employee coverage rate: 100% At least once a year for each employee 	<ul style="list-style-type: none"> Implementation status of harassment training Employee coverage rate: 100% At least once a year for each employee 	
	Promoting Diversity and Inclusion	<ul style="list-style-type: none"> Promoting active participation of female 	<ul style="list-style-type: none"> Percentage of female managers: 1.6% (2 out of 122) 	<ul style="list-style-type: none"> Percentage of female managers: 4.9% (6 out of 122) 	<ul style="list-style-type: none"> Percentage of female managers: 8.2% (10 out of 122) 	
		<ul style="list-style-type: none"> Promoting support for next-generation development 	<ul style="list-style-type: none"> Percentage of male employees who take childcare leave: 24.1% (Employees who took childcare leave: 7 / Eligible employees: 29) 	<ul style="list-style-type: none"> Rate of male employees who take childcare leave: 100% 	<ul style="list-style-type: none"> Rate of male employees who take childcare leave: 100% 	
	Promotion of Work-Life Balance	<ul style="list-style-type: none"> Create a comfortable working environment 	<ul style="list-style-type: none"> Average rate of employees taking annual paid leave: 60.6% 	<ul style="list-style-type: none"> Rate of employees taking annual paid leave: 70% 	<ul style="list-style-type: none"> Rate of employees taking annual paid leave: 80% 	
<ul style="list-style-type: none"> Health Focused Management 		<ul style="list-style-type: none"> Certified Health & Productivity Management Outstanding Organization: Not yet certified 	<ul style="list-style-type: none"> Health Management (White 500) certification 	<ul style="list-style-type: none"> Continuous certification of Health Management (White 500) 		
Human Resource Development	<ul style="list-style-type: none"> Implementing education for the continuous growth of all employees 	<ul style="list-style-type: none"> Training time per employee: 12.8 hours 	<ul style="list-style-type: none"> Training time per employee: 18 hours 	<ul style="list-style-type: none"> Training time per employee: 20 hours 		



Director,
Senior Managing
Executive Officer
YOSHIMURA Takumi

Initiatives for the Environment

Kumiai Group have set “Mitigation of climate change and environmental impact,” “Conservation of biodiversity,” and “Contribution toward a recycling-based society” as materialities, and aim to help preserve the global environment and realize a low-carbon society by fully utilizing our technologies, knowledge, and R&D capabilities. In addition, we are working to develop and promote products that contribute to both stable food production and sustainable agricultural industry by responding to the “Strategy for Sustainable Food Systems, MeaDRI.”

developed and released agricultural chemical products that are expected to be effective at low dosages along with microbial pesticides that are ahead of the industry. We also developed and launched “MAMETSUBU” as a material for contributing to smart agriculture. It is compatible with different spreading methods such as the use of drones, radio-controlled helicopters, and radio-controlled boats, which contributes to a stable food supply and sustainable agriculture by reducing labor for growers. We will continue working to develop and release products that promote smart agriculture.

Activities for Maintaining and Managing Mountain Forests in Hokkaido

In 1974, we purchased approximately 640 hectares of forest in the town of Fukushima, Hokkaido, and made an agreement with the Fukushima Forest Cooperative to maintain and manage the forest, which we have continued to do until today. As a secondary effect of the forest preservation, in recent years water source conservation functions (water purification functions and water storage functions) have improved, which has resulted in sufficient nutrients flowing to nearby oceans via rivers, that benefits squid and seaweed in the area, which are local specialties. We provide the lumber from forest thinning that is done to foster good Japanese cedars to Fukushima, which has resulted in local employment through forest management activities. This has allowed us to contribute toward local revitalization while also promoting biodiversity. In July of 2022, we entered into a comprehensive partnership agreement with Fukushima, Hokkaido, and the Fukushima Forest Cooperative. For the future of Fukushima, which is home to abundant nature, we will promote initiatives including contributing to a sustainable society by utilizing agriculture-related technologies and other new techniques such as ICT.

Contribution to Biodiversity

Participation in the industry - government - university “Satochi-Satoyama Preservation Project”

In collaboration with RIKENGREEN, which is one of our group companies, Utsunomiya University, and the “Satoyama Oogisu wo aisuru kai” association, we participated in the industry - government - university “Satochi-Satoyama Preservation Project” (Cabinet Office certification) that utilizes the corporate version of the hometown tax system in Nasukarasuyama City, Tochigi Prefecture. The increase in unused farmland and decay of forests has resulted erosion due to weeds, and is becoming a serious issue. Currently, weeds are removed using trimmers, but such individual efforts have limitations. Therefore, the “Satochi-Satoyama Project to Eliminate Weeds” was launched as part of the “Satochi-Satoyama Preservation Project.” Kumiai Group is aiming to achieve labor-saving weed control using a “Plant growth regulator” SHORTKEEP. “Satochi-Satoyama” areas (between towns and mountains) are important for the supply of natural resources such as food and timber, beautiful landscapes, replenishing water resources, and national land conservation, and are vital habitats for various plants and animals. We will contribute to promote biodiversity through demonstration tests using our group chemicals and technologies for implementing initiatives to revitalize Satoyama areas.



Satochi-Satoyama Preservation Project



SHORTKEEP

Comprehensive Partnership Agreement Items

- ① Contributing to a sustainable society (Reduction of greenhouse gases)
- ② Promoting industries that use local resources
- ③ Child learning through nature
- ④ Regional revitalization by giving back to the countryside
- ⑤ Other items to be determined based on consultation among the three parties



Mayor of Fukushima, Hokkaido NARUMI Kiyoharu(left), President of Kumiai, TAKAGI Makoto(right)

Greenhouse Gas (GHG) Emissions and Environmental Data

		GHG emissions (t-CO ₂ /year)			
		FY2019	FY2020	FY2021	FY2022
Scope 1	Direct Emissions	47,846	46,718	47,702	47,982
Scope 2	Indirect Emissions according to market-based method/Generated by use of electricity, heat, and steam provided by other companies	19,164	17,307	17,459	18,142
Total emissions		67,009	64,024	65,162	66,124
Scope 1+2	Emissions per net sales unit (t-CO ₂ /Millions of yen)	0.705	0.644	0.605	0.503
Scope 3 Category	1. Purchased goods and services	-	-	-	198,660
	2. Capital goods	-	-	-	27,470
	3. Fuel and energy related activities	-	-	-	15,290
	4. Upstream transportation and distribution	-	-	-	11,715
	5. Waste generated in operations	-	-	-	7,676
	6. Business travel	-	-	-	221
	7. Employee commuting	-	-	-	1,003
	8. Upstream leased asset	-	-	-	0
	9. Downstream transportation and distribution	-	-	-	769
	10. Processing of sold products	-	-	-	0
	11. Use of sold products	-	-	-	0
	12. End-of-life treatment of sold products	-	-	-	3,729
	13. Downstream leased assets	-	-	-	66
	14. Franchises	-	-	-	0
	15. Investments	-	-	-	0
Total emissions		-	-	-	266,599

	Unit	FY2019	FY2020	FY2021	FY2022
Energy consumption (crude oil equivalent)	KL	33,067	32,899	33,559	33,199
Amount of purchased electricity	Mwh	54,875	56,317	57,016	55,992
Amount of renewable energy	Mwh	12,525	12,544	12,635	12,420
Water intake amount	Thousand m ³	-	-	-	4,187
Amount of industrial waste	Thousand tons	-	-	-	8.653

* Targets include seven group companies, which are, KUMIAI CHEMICAL INDUSTRY, RIKENGREEN, IHARANIKKEI CHEMICAL INDUSTRY, K-I CHEMICAL INDUSTRY, Ihara Construction Industry, ONOMICHI KUMIKI INDUSTRY, and KUMIKI LOGISTICS. The ratio of the seven companies' net sales to consolidated net sales (coverage rate) is 90.6% (FY2022).

Initiatives for “MeaDRI”

Innovation with Balance between Productivity and Sustainability

The Ministry of Agriculture, Forestry and Fisheries formulated the “Strategy for Sustainable Food Systems, MeaDRI” in 2021 as a unique strategy for sustainable food systems in harmony with SDGs.

In response to the “MeaDRI,” we are continuing our research to create safe and secure agricultural chemicals, and are accelerating our research and development of microbial pesticides and bio-stimulants as part of our Agricultural Chemicals and Agriculture-related Business. We also began studying ways to suppress greenhouse gases generated on farmland with the aim of creating value that will contribute to the agricultural industry in various ways. We have already

Mitigation of Climate Change and Environmental Impact (Information disclosure in line with TCFD recommendations)

Climate change is a serious social issue that results in other problems such as an increase in pests due to rising temperatures, and negative impact on agricultural production in extreme weather conditions. Therefore, to mitigate and adapt to climate change, Kumiai Group has been promoting initiatives such as the continuous reduction of greenhouse gas emissions. In November 2022, we announced to endorse the “TCFD (Task Force on Climate-related Financial Disclosures) recommendations,” and proceed with proactive disclosure in line with TCFD recommendations.

Governance & Risk Management

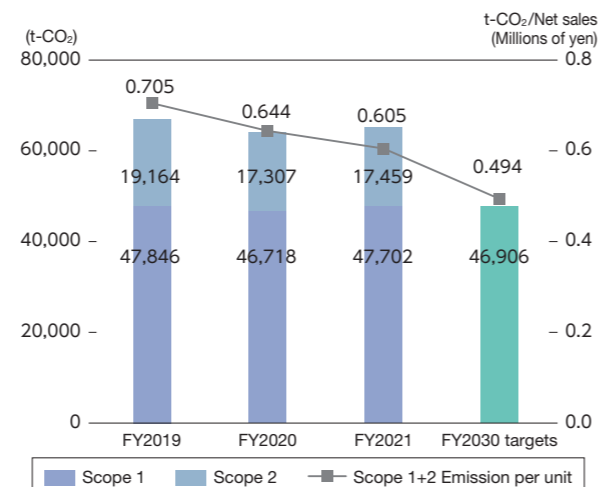
Kumiai Group established the “Basic Policy on Sustainability” based on the “Kumiai Chemical Group Corporate Philosophy” to improve corporate value by promoting sustainability management, and are contributing toward creating a sustainable society by meeting the expectations and needs of stakeholders. To promote sustainability management, a “Sustainability Promotion Committee” that is led by the President was established, and three subcommittees were organized according to the ESG category. At this committee and the three subcommittees, targets and progress related to sustainability are being examined and discussed, and initiatives for “Realization of a sustainable society” are being promoted. We set “Mitigation of climate change and environmental impact” as materiality, and have identified risks and opportunities related to climate change for Kumiai Group. Through scenario analysis, we have set Kumiai Group targets for the “Safe, secure, and affluent society” scenario (called the 1.5°C scenario) and “Unsustainable society” scenario (called the 4°C scenario) where social issues like climate change become worse, and have evaluated the impact based on risks and opportunities in relation to Kumiai Group. Measures for major risks and opportunities that have a large impact are being examined. The contents of these examinations are reported to the Sustainability Promotion Committee, and Management including the President then discuss climate change risks and opportunities.



Indicators and Targets

Kumiai Group set FY2019 as the reference year, and set reducing scope 1 and scope 2 GHG emissions by 30% compared to FY2019 by FY2030 as our target. In addition to Kumiai itself, we have identified seven group companies that are expected to emit large amounts of GHGs (companies with factories and logistics companies) and have set total GHG emissions for these companies as targets for reduction. We will reduce GHG emissions by improving energy efficiency based on capital investment in factories, and by effective use of renewable energy such as solar power.

GHG Emissions and Targets for Reduction



* Target companies for GHG calculation (7 companies): KUMIAI CHEMICAL INDUSTRY, RIKENGREEN, IHARANIKKEI CHEMICAL INDUSTRY, K-I CHEMICAL INDUSTRY, Ihara Construction Industry, ONOMICHI KUMIKA INDUSTRY, and KUMIKA LOGISTICS.

Strategy

We have set Kumiai Group targets for the “Safe, secure, and affluent society” scenario (called the 1.5°C scenario) and “Unsustainable society” scenario (called the 4°C scenario) where social issues like climate change become worse, and have evaluated the impact based on risks and opportunities in relation to Kumiai

Group.

The following shows the major risks and opportunities along with related measures. We are convinced that realizing Kumiai Group’s aim of a “Safe, secure, and affluent society” will result in a positive impact on Kumiai Group.

Scenario	Overview	Reference Scenario
“Safe, secure, and affluent society” scenario (1.5°C scenario)	In this scenario, temperature increase is limited to 1.5°C compared to pre-industrial levels. As society transitions toward decarbonization, environmental protection demands will increase, stricter laws and regulations will be implemented, and there will be large-scale environmental investment.	“Net Zero Emissions by 2050 (NZE2050)” by the International Energy Agency (IEA), etc.
“Unsustainable society” scenario (4°C scenario)	In this scenario, temperature increases by at least 4°C compared to pre-industrial levels. If progress toward a decarbonized society is stifled, greenhouse gas emissions will increase, resulting in increasing extreme weather events such as floods and typhoons.	United Nations Intergovernmental Panel on Climate Change (IPCC) “RCP8.5” etc.

Classification	Major Risks & Opportunities	Impact on business	Response	Impact (2030)	
“Safe, secure, and affluent society” scenario	Risk	Stricter regulations on greenhouse gas emissions	<ul style="list-style-type: none"> Financial burden may increase such as due to implementation of a carbon tax. Compare to other chemical company, the impact will be limited since energy consumption is relatively low. 	<ul style="list-style-type: none"> Setting long-term targets for reducing greenhouse gas emissions Promoting implementation of energy-saving equipment and renewable energy 	Small
		Increased energy costs	<ul style="list-style-type: none"> Energy costs may increase due to changes in energy policies as society moves toward decarbonization. Compare to other chemical company, the impact will be limited since energy consumption is relatively low. 	<ul style="list-style-type: none"> Same as above 	Small
		Decrease in demand for agricultural chemicals due to stricter regulations on agricultural chemicals	<ul style="list-style-type: none"> Sales may decrease if certain products become subject to regulation. 	<ul style="list-style-type: none"> Development of chemical and biological control agents with less risk to humans and the environment 	Medium
	Opportunity	Higher evaluation of ESG investment	<ul style="list-style-type: none"> Evaluation by investors may improve as efforts for sustainability are highly evaluated. 	<ul style="list-style-type: none"> Proactive disclosure of ESG information 	Medium
		Higher evaluation by customers	<ul style="list-style-type: none"> Evaluations from customers and sales partners may improve due to proactive measures against climate change and for open information disclosure. 	<ul style="list-style-type: none"> Same as above 	Small
		Greater demand for environmentally-friendly products	<ul style="list-style-type: none"> Demand for environmentally-friendly products will likely increase as people demand greater consideration for the environment. 	<ul style="list-style-type: none"> Development of environmentally-friendly products 	Medium
“Unsustainable society” scenario	Risk	Higher demand for our products due to stricter regulations on agricultural chemicals	<ul style="list-style-type: none"> Since our products have less risks, their competitiveness may increase. 	<ul style="list-style-type: none"> Development of chemical and biological control agents with less risk to humans and the environment 	Large
		Higher demand for biopesticides and physical pest control	<ul style="list-style-type: none"> Sales may increase for newly developed products such as bio-stimulants, GMO crops, and smart agriculture technologies (such as spreading of MAMETSUBU by drones). 	<ul style="list-style-type: none"> Spread and sales of biological control agents as support for smart agriculture increases 	Small
Common Scenario	Risk	Loss of business due to increased damage from storms and floods	<ul style="list-style-type: none"> Flooding and high tides cause damage to offices and supply chains, which may have a negative impact on business. 	<ul style="list-style-type: none"> Installing rainwater gates and drainage pumps, and formulating BCP 	Medium
		Lower demand due to a decrease in farming areas	<ul style="list-style-type: none"> Land usage for agriculture may decrease along with demand for agricultural chemicals due to factors such as worsening droughts as a result of climate change causing more damage from storms and floods. 	<ul style="list-style-type: none"> Development and distribution of agricultural materials that help improve agricultural productivity 	Large
	Opportunity	Higher demand due to population growth and increased agricultural production	<ul style="list-style-type: none"> Demand and production of agricultural products will increase as the global population grows, which may increase the demand for agricultural chemicals needed to produce higher yields. 	<ul style="list-style-type: none"> Same as above 	Large

Initiatives for Society

In order to grow in a sustainable manner, Kumiai will proactively take the initiative to establish systems and a corporate culture where diverse human resources can each demonstrate their capabilities.

Basic Policy on Human Resource Management

1. Establishing rewarding workplaces

Kumiai Group considers “human resources” to be the key to achieving sustainable growth, and is actively endeavoring to create a workplace where everyone is able to find satisfaction through work-life balance. We will continue to promote a “sense of existence,” “sense of accomplishment,” and “hope for the future” as we strive to improve the happiness of our employees by creating an environment that allows them to find fulfillment in their work.

2. Establishing a safe and healthy work environment

Kumiai Group will proceed with establishing a safe and healthy work environment by reflecting discussions from the Health & Safety Committee which are attended by representative employees to ensure that all employees understand legal requirements related to safety and health, as well as mitigation measures, in addition to preventing occupational accidents and disease.

3. Ensuring fair work conditions

Kumiai Group will respect fundamental labor rights including freedom of association and the right to collective bargaining, and observe laws and regulations on labor such as minimum wage regulations and working hour regulations through constructive dialogue between employees and management at councils with labor unions, and will endeavor to improve conditions including maintaining fair personnel systems to ensure fair labor conditions.

4. Fair and impartial human resource management

Kumiai Group will cultivate human resources who are capable or acting in harmony with our corporate philosophy from an ethical perspective, and who have expertise with a global perspective.

5. Promoting diversity

Kumiai Group aims to achieve diversity and inclusion so that diverse human resources are able to work to their potential and have a sense of value.

Promotion of Work-Life Balance

Preventing Overwork and Promoting Work-Life Balance

We have implemented a staggered working hours system and remote work system to encourage employee's

work-life balance. We also are making efforts to prepare environments such as a remote work and use of satellite offices so that various employees are able to fully use their abilities while having peace of mind.

KPI	FY2022 results	FY2026 targets	FY2030 targets
Average usage rate for annual paid leave	60.6%	70.0%	80.0%
Average monthly hours of overtime work	13.8 hours	Less than 10 hours	Less than 10 hours

Support System for Parents Raising Children

Kumiai has various working systems to support employees who are raising children. The short-time working hour system can be used until a child enters junior high school. The staggered working hours system can be used on a single-day basis. Many employees use a remote work system that was introduced during the COVID-19 pandemic for preventing infection.

In recent years, the number of male employees taking childcare leave is increasing. We will continue making efforts to create a comfortable work environment.

KPI	FY2022 results	FY2026 targets	FY2030 targets
Rate of male employees who take childcare leave	24.1%	100%	100%
“To receive Kurumin Certification” based on the Act on Advancement of Measures to Support Raising Next-Generation Children	—	To receive “Platinum Kurumin” Certification	Maintaining “Platinum Kurumin” Certification

Promoting Diversity and Inclusion

We are endeavoring to promote diversity because we recognize that having a variety of perspectives and values is essential for ensuring sustainable growth. We train women, non-Japanese workers, and mid-career hires as managers and specialists based on personnel evaluations that are fair according to the person's abilities and achievements without discriminating according to age, nationality, gender, or other characteristics. As a result of our efforts to promote diversity in hiring, women accounted for 31.3% of new graduate hires, and mid-career workers accounted for 27.3% of annual hires in FY2022.

We are also formulating ways for supporting the success of women in the workplace, and will set and achieved each KPI. We will provide training on diversity in order to create a corporate culture where diverse

human resources are able to use their abilities to the full with confidence.

Ratio of female hires to new graduate hires

Year joined the Company	2020	2021	2022
Males (People)	28	22	11
Females (People)	7	12	5
Total (People)	35	34	16
Percentage of females	20.0%	35.3%	31.3%

Ratio of mid-career hires to annual hires

Year joined the Company	2020	2021	2022
New graduate hires (People)	35	34	16
Mid-career hires (People)	6	8	6
Total hires (People)	41	42	22
Percentage of mid-career hires	14.6%	19.0%	27.3%

KPIs for promoting diversity

KPI	FY2022 results	FY2026 targets	FY2030 targets
Percentage of female managers (Section Manager or higher)	1.6%	4.9%	8.2%
Rate of female employees	16.8%	19.0%	20.0%
Diversity training	—	At least once a year	At least once a year

Human Resource Development

Kumiai provides training for all departments according to the year when an employee joins us including training for new employees, training for mid-career employees, and life plan seminars in addition to training for each position such as assessment training and personnel evaluator training. Each department also provides practical training related to work including language training and sales training. In research and development departments, effort is also made to foster researchers through joint research where researchers are dispatched to other research institutes (such as the National Institute of Advanced Industrial Science and Technology).

Respect for Human Rights

Kumiai has established its “Basic Policy on Human Rights,” and we endeavor to respect basic human rights without discrimination in our corporate activities. We also avoid contributing in any way to infringement on human rights such as child labor and forced labor in our businesses outside Japan, and support international initiatives for eliminating these problems.

KPI	FY2022 results	FY2026 targets	FY2030 targets
Implementation of human rights education and training	Held for all Managers: once	Employee coverage rate: 100% At least once a year for each employee	Employee coverage rate: 100% At least once a year for each employee

Basic Policy on Human Rights

1. Respect for human rights

Kumiai Group respects international standards on human rights including the United Nations International Bill of Human Rights and the “Declaration on Fundamental Principles and Rights at Work” by the International Labor Organization (ILO). We also consider the intent of the United Nations Guiding Principles on Business and Human Rights, and promote initiatives for respecting human rights

2. Prohibiting discrimination and harassment

Kumiai Group prohibits discrimination based on gender, age, nationality, race, ethnicity, religion, creed, educational background, social status, disability status, sexual orientation, or gender identity, and prohibits harassment that robs a person of their dignity such as sexual harassment, power harassment, and maternity harassment in all business activities. We also are promoting measures for avoiding even indirect complicity in human rights violations based on business activities and for avoiding contributing in any way to human rights violations.

3. Prohibiting child labor and forced labor

Kumiai Group is determined to avoid forced labor, child labor, slave labor, or human trafficking either directly or indirectly in business activities in all countries and regions of the world.

4. Privacy protection

Kumiai Group respects privacy and works to protect personal information.

5. Engaging in human rights due diligence

Kumiai Group endeavors to recognize any potential negative impacts on human rights and seeks to prevent or mitigate these through remediation processes.

Promotion of Industrial Health and Safety

Kumiai believe that industrial health and safety is an important matter that takes precedence over everything else. We conduct our health and safety activities in two main ways, one lead by manufacturing sites and the other by Head Office. At each office, the Health & Safety Committee takes the lead to implement various measures. The Head Office includes the introduction of VR danger experience training, contracts with occupational safety consultants, and joint research on safety with human error researchers and the National Institute of Advanced Industrial Science and Technology (AIST). In this way, we are promoting company-wide industrial health and safety activities through collaboration inside and outside Kumiai.

Health and Safety Management System

In Kumiai, a General Health and Safety Manager is appointed at each office to oversee the following matters.

- 1) Matters related to measures for preventing dangers or health hazards to employees
- 2) Matters related to implementing education for the safety or health of employees
- 3) Matters related to implementing health checkups and other matters related to health management
- 4) Matters related to investigating the cause of occupational accidents and measures for preventing recurrence
- 5) Other matters related to health and safety management

We also established a Health & Safety Committee for increasing the awareness of employees on health and safety, for reflecting feedback from employees, and for promoting activities to improve occupational accident prevention measures and promote health. People are appointed at each office as needed to handle matters related to health and safety including managers, responsible individuals, and industrial physicians.

Initiatives for Preventing Occupational Accidents

Reports on the status of accidents and on measures

Number of occupational accidents (New)

Fiscal Year	Commuting accident	Work accident	Total	Accidents requiring time off from work
2019	1	5	6	1
2020	4	10	14	1
2021	5	5	10	0
2022	4	15	19	1
Total	14	35	49	3

* Kumiai only

for preventing recurrence are created and managed within Kumiai.

Examples of New Health and Safety Initiatives

In 2018, a construction project for the new plant for water-dispersible granules at our Tatsuno Factory got underway with collaboration between the manufacturing site and Head Office. The design was repeatedly examined taking safety and the environmental friendliness into consideration. On October 4, 2022, a completion ceremony was held, and a safety diagnosis was conducted the same month prior to the start of operation.

The new plant design was based on the following concepts.

- 1) Saving energy, reducing labor, unmanned operation
- 2) Flexible cleaning of the whole plant
- 3) Smart factory and digital factory
- 4) Streamlining and optimization

Safety measures and risk mitigation were implemented based on these.

To reduce risk exposure for operators during conventional switching work, we made all equipment for the whole process washable. In addition, the spread of dust was reduced while equipment is operating for reducing exposure to operators, and safety measures were implemented to prevent dust explosion. With regard to risk assessment of equipment and operations, a safety diagnosis (including risk assessment) was conducted prior to acceptance inspection and operation with the cooperation of an outside industrial safety consultant. While implementing such measures, we could identify other risks during operation and make further improvements. We conducted safety diagnosis again in the presence of industrial safety consultants to examine remaining risks.



Initiatives for Responsible Care

Kumiai is promoting Responsible Care activities as part of sustainability management. In May of 2022, the Responsible Care Promotion Section was newly established.

As a research and development oriented company that mainly manufactures agricultural chemicals, our responsible care activities are for protecting safety, health, and the environment of related people inside and outside Kumiai throughout all processes including production, sales, use by customers, through to disposal. In November 2022, we joined the Responsible Care Committee of the Japan Chemical Industry Association (JCIA), and in December, we established the Responsible Care Promotion Committee headed by the President. We are sharing information among the seven group companies which handle chemicals in order to improve our activities.

System for Promoting Responsible Care

The Responsible Care Promotion Committee, which is headed by the President, includes full-time Directors and Executive Officers and department heads, and is operated by the Responsible Care Promotion Section as the secretariat. We are focusing on the following efforts to continuously improve our Responsible Care activities.

- 1) Creating goals and plans for Responsible Care activities
- 2) Progress management for Responsible Care action plans
- 3) Matters related to the Responsible Care Management System
- 4) Responsible Care internal audit reports and management reviews

(Group companies that share information: RIKENGREEN, IHARANIKKEI CHEMICAL INDUSTRY, K-I CHEMICAL INDUSTRY, Ihara Construction Industry, ONOMICHI KUMIKA INDUSTRY, KUMIKA LOGISTICS and NEP (7 companies))



Basic Policy on Responsible Care

Based on the "Kumiai Group Basic Corporate Philosophy," we will endeavor to protect the environment and ensure health and safety throughout the life cycle of our chemical products, and continuously work to improve the quality of people's lives and create a sustainable society as we implement Responsible Care with the goal of contributing to its realization.

1. Kumiai's Executives will take the lead in demonstrating leadership and promoting Responsible Care.
2. We will willingly make effort to protect and improve the environment and health and safety throughout the life cycle of our chemical products; from development to disposal.
3. We will promote conservation of resources and energy, and work to reduce and effectively utilize waste.
4. We will protect the environment and the health and safety of people throughout the supply chain.
5. We will disclose the results of our activities and endeavor to engage in dialogue and communication activities with society in order to meet the expectations of stakeholders regarding our efforts for the environment and health and safety.
6. For "Protecting and fostering life and nature," we will continue making effort to create new value that will lead to the sustainable development of an affluent society.

Corporate Governance

In harmony with our corporate philosophy, which is “We will contribute to the safety, security, and prosperity of society by leveraging our unique scientific creativity to protect and foster life and nature,” Kumiai is endeavoring to develop and provide products that meet the needs of our customers and gain the trust. In addition to establishing a system that will allow us to swiftly adapt to changes in the management environment, we place priority on improving the management administration system in order to comply with laws, regulations, and ethics from the perspective of our shareholders, and to improve management transparency. Regarding our relationships with stakeholders, part of our management visions is to “Maintain good relationships with all stakeholders through transparent corporate activities,” and in our Code of Conduct, we define the actions that employees should take and matters that must be complied with in “Honesty and pride as Kumiai employees,” “Total win with customers and business partners,” and “Open communication with shareholders.” We are working to establish a corporate culture with respect for the position of stakeholders.

Basic Policy on Corporate Governance

- Chapter 1 General Rules
- Chapter 2 Relationship with Shareholders
- Chapter 3 Collaboration with Stakeholders
- Chapter 4 Information Disclosure
- Chapter 5 Corporate Governance
- Chapter 6 Establishment, Revision, and Abolishment

Corporate Governance framework

Kumiai has adopted an Audit & Supervisory Board as the corporate governance framework. We have established a “Board of Directors,” “Management Meetings,” and “Executive Meetings,” and employ a corporate governance framework based on their respective decisions and discussions. We established the roles of the Board of Directors, focusing on decision-making related to management policies, and supervision of business execution in order to clarify the different responsibilities of management functions and business execution, and to enhance business execution functions and speed up the decision-making process. Kumiai is working to strengthen the auditing function of business execution by having a full-time Audit & Supervisory Board Member (Independent outside corporate auditor) attend other important internal meetings in addition

to the Board of Directors, the Management Meetings, and Executive Meetings. The Board of Directors, Management Meetings, and Executive Meetings operate within the scope of their respective criteria based on internal regulations for making decisions, and we have determined that the system is functioning properly as a management check function including the execution of business based on made decisions.

Board of Directors

The Board of Directors is chaired by the President and Representative Director, and is comprised of nine Directors (including three Outside Directors), and meetings are generally held once a month where management policies and important management mater are determined, and business execution is supervised. At Board of Directors, four Audit & Supervisory Board Members are also present in order to strengthen management check functions, and they express their opinions as needed. We also have appointed a Nomination and Remuneration Committee under the Board of Directors for strengthening the independence, objectivity, and accountability of Board of Director functions in regards to nomination and remuneration of directors.

Management Meetings

Management Meetings are chaired by the President and Representative Director and are attended by six full-time Directors and three Managing Executive Officers. These are held as needed for discussing important management strategies and business operations. A full-time Audit & Supervisory Board Member also attends these meetings.

Executive Meetings

Executive Meetings are chaired by the President and Representative Director and are attended by six full-time Directors and ten Executive Officers. These are principally held twice a month for making decisions related to business operations. A full-time Audit & Supervisory Board Member also attends these meetings.

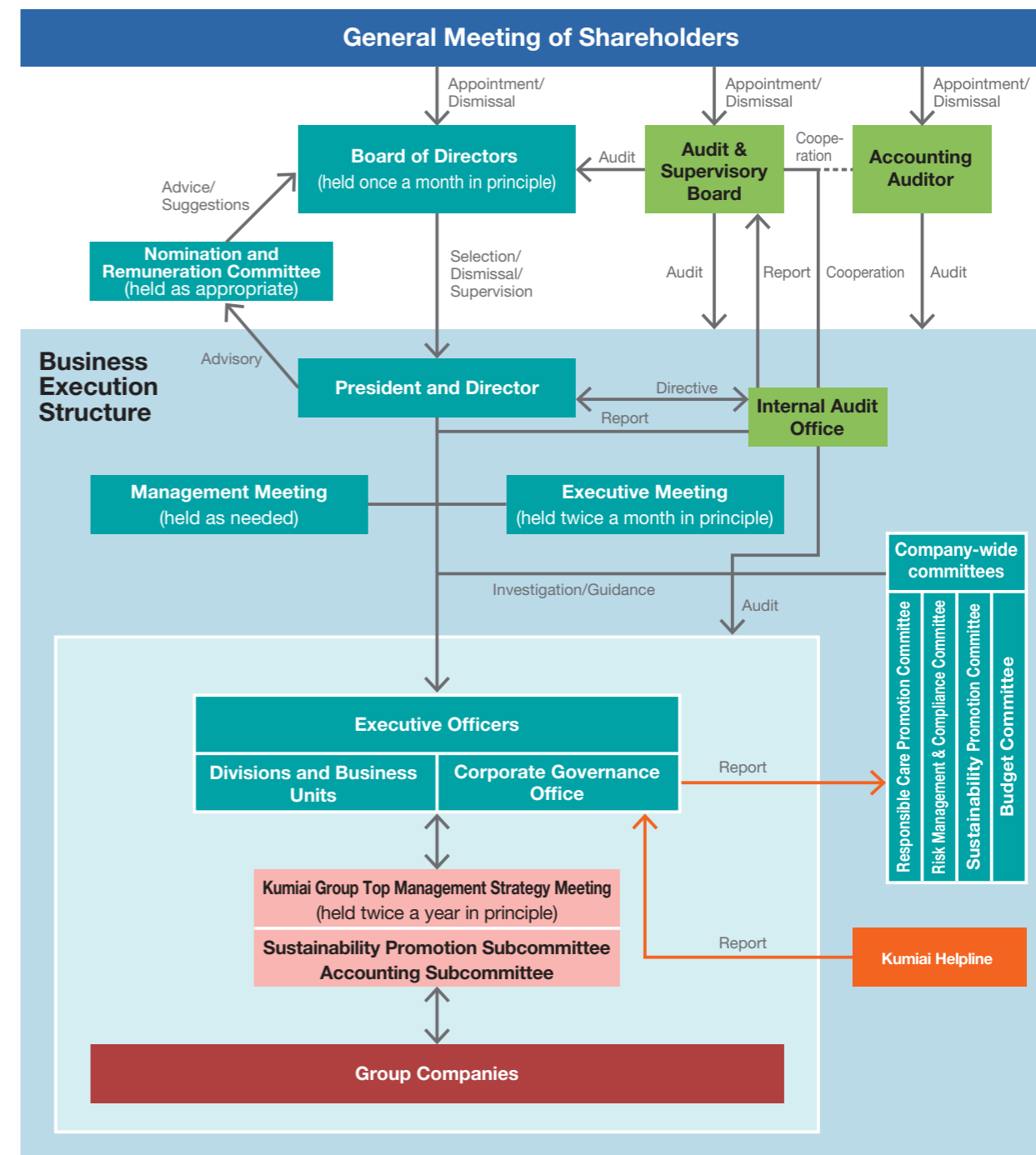
Audit & Supervisory Board

The Audit & Supervisory Board is chaired by a full-time Audit & Supervisory Board Member and is comprised of four Audit & Supervisory Board Members. They perform audits on the fulfillment of duties by Directors from an independent perspective based on audit policies and the audit plan established by the Audit & Supervisory Board.

Meetings are also held for the “Budget Committee,”

“Sustainability Promotion Committee,” “Risk Management & Compliance Committee,” and “Responsible Care Promotion Committee,” which are responsible for corporate governance, at least once a year and as needed in addition to the “Kumiai Group Top Management Strategy Meeting,” which is held twice

a year. A full-time Audit & Supervisory Board Member attends all of these meetings. The Internal Audit Office carries out internal audits on the status of compliance with laws and regulations, and optimization of business activities, etc., from an independent perspective, and gives specific advice for improving business operations.



Executives (as of January 27, 2023)



Representative Director, President
TAKAGI Makoto
 April 1981 Joined the Company
 January 2005 General Manager of Overseas Department
 January 2012 Corporate Officer, General Manager of Overseas Department
 January 2013 Representative Director, President of NIHON PRINTING INDUSTRY CO., LTD.
 January 2016 Managing Director of the Company
 May 2017 Managing Director, Head of Corporate Planning & Coordination Division
 January 2019 Senior Managing Director, Head of Corporate Planning & Coordination Division
 January 2021 Director, Senior Managing Executive Officer, Head of Corporate Planning & Coordination Division
 November 2021 Representative Director, President (Current)



Representative Director, Senior Managing Executive Officer
UCHIDOI Toshiharu
 April 1987 Joined National Federation of Agricultural Cooperative Associations ("ZEN-NOH")
 March 2014 General Manager of Osaka Business Station, Fertilizers and Agrochemicals Division of ZEN-NOH
 August 2015 General Manager of General Administration Section, Fertilizers and Agrochemicals Division of ZEN-NOH
 April 2018 Vice President of General Planning Division of ZEN-NOH
 April 2019 President of Legal and Risk Management Division of ZEN-NOH
 January 2021 Representative Director, Senior Managing Executive Officer, Head of Overseas Sales Division of the Company (Current)



Outside Director
NISHIO Tadahisa
 April 1973 Joined Suzuyo & Co., Ltd. ("Suzuyo")
 November 2004 Executive Officer, General Manager of Container Terminal Department of Suzuyo
 April 2005 Executive Officer, General Manager of Shipping & Bonded Warehouse Operations Department of Suzuyo
 June 2006 Executive Officer, General Manager of Port Business Division of Suzuyo
 November 2007 Managing Director, General Manager of Port Business Division of Suzuyo
 November 2011 Senior Managing Director, General Manager of Port Business Division of Suzuyo
 January 2015 Director of Ihara Chemical Industry Co., Ltd.
 September 2015 Senior Managing Director of Suzuyo
 November 2016 Representative Executive Vice President of Suzuyo (Current)
 May 2017 Director of the Company (Current)



Outside Director
IKEDA Kanji
 April 2004 Professor, Faculty of Social Sciences and Graduate School of Public Policy, Hosei University (Current)
 January 2016 Director of the Company (Current)



Director, Senior Managing Executive Officer
YOSHIMURA Takumi
 April 1981 Joined K-I CHEMICAL RESEARCH INSTITUTE CO., LTD.
 July 2008 Director of K-I CHEMICAL RESEARCH INSTITUTE CO., LTD.
 January 2013 General Manager of Corporate Planning & Coordination Department of the Company
 January 2016 Corporate Officer, General Manager of Corporate Planning & Coordination Department
 January 2017 Executive Officer, General Manager of Corporate Planning & Coordination Department
 May 2017 Executive Officer, Deputy Head of Research & Development Division
 February 2020 Executive Officer, General Manager of General & Personal Affairs Department of Corporate Planning & Coordination Division
 January 2021 Managing Executive Officer, Deputy Head of Corporate Planning & Coordination Division
 November 2021 Managing Executive Officer, Head of Corporate Planning & Coordination Division
 January 2023 Director, Senior Managing Executive Officer (Current)



Director, Managing Executive Officer
OKAWA Tetsuo
 April 1982 Joined the Company
 June 2008 General Manager of Formulation Technology Institute
 December 2012 General Manager of Production & Purchasing Department
 January 2016 Corporate Officer, General Manager of Production & Purchasing Department
 June 2016 Corporate Officer, General Manager of Research & Development Department
 January 2017 Executive Officer, General Manager of Research & Development Department
 May 2017 Executive Officer, Deputy Head of Research & Development Division
 January 2018 Director, Head of Research & Development Division
 January 2019 Managing Director, Head of Research & Development Division
 January 2021 Director, Managing Executive Officer, Head of Research & Development Division (Current)



Outside Director
YAMANASHI Chisato
 April 2006 Joined Tokyo Style Co. Ltd. (currently TSI HOLDINGS CO., LTD.)
 October 2008 Joined CRAYON Inc.
 October 2017 Joined Sumitomo Realty & Development Co., Ltd.
 October 2020 Director, Shizuoka Shell sekiyu hanbai k.k (Current)
 January 2023 Director of the Company (Current)



Full-time Outside Audit & Supervisory Board Member
TANEDA Kohei
 April 1983 Joined The Norinchukin Bank ("Norinchukin")
 June 2009 General Manager of Agriculture, Forestry and Fisheries Finance Division of Norinchukin
 July 2009 General Manager of Agriculture, Forestry, Fishery & Ecology Business Division of Norinchukin
 July 2010 General Manager of Agriculture, Forestry, Fishery & Ecology Business Planning Division of Norinchukin
 July 2011 General Manager, Head of Credit & Alternative Portfolio Planning Division of Norinchukin
 June 2013 Managing Director Member of The Board of Norinchukin
 June 2015 President of Norinchukin Facilities Co., Ltd
 January 2020 Full-time Audit & Supervisory Board Member of the Company (Current)



Outside Audit & Supervisory Board Member
YAMADA Masakazu
 April 1990 Joined National Federation of Agricultural Cooperative Associations ("ZEN-NOH")
 April 2018 General Manager of Agrochemicals Section, Fertilizers and Agrochemicals Division of ZEN-NOH
 April 2019 Vice President of Crop Production Division of ZEN-NOH
 April 2022 President of Agribusiness General Planning Division of ZEN-NOH (Current)
 January 2023 Audit & Supervisory Board Member of the Company (Current)



Director, Managing Executive Officer
IKAWA Teruhiko
 April 1984 Joined Ihara Chemical Industry Co., Ltd. ("Ihara")
 January 2007 General Manager, Procurement Department of Production Division of Ihara
 January 2010 General Manager, Procurement Department of Procurement Division of Ihara
 January 2011 Director, General Manager of Procurement Department of Production & Procurement Division of Ihara
 January 2012 Director, Head of Production & Procurement Division of Ihara
 June 2012 Director, General Manager of Procurement Department of Ihara
 July 2013 Director, Head of SCM Business Division of Ihara
 January 2016 Executive Officer, Head of SCM Business Division of Ihara
 May 2017 Director, General Manager of Chemical Sales Department of Chemical & Specialty Products Sales Division of the Company
 January 2019 Director, Deputy Head of Production & Procurement Division
 January 2021 Director, Managing Executive Officer, Head of Production & Procurement Division (Current)



Director, Managing Executive Officer
YOKOYAMA Masaru
 April 1989 Joined the Company
 August 2007 Managing Director of K-I CHEMICAL EUROPE SA/NV
 January 2013 General Manager of Overseas Department
 April 2013 General Manager of Overseas Marketing Department
 February 2020 Executive Officer, General Manager of Corporate Planning & Coordination Department of Corporate Planning & Coordination Division
 November 2021 Managing Executive Officer, Deputy Head of Corporate Planning & Coordination Division
 January 2023 Director, Managing Executive Officer, Head of Corporate Planning & Coordination Division (Current)



Outside Audit & Supervisory Board Member
SUKEGAWA Ryuji
 April 1978 Joined National Mutual Insurance Federation of Agricultural Cooperatives ("ZENKYOREN")
 April 2005 President of System Development Division, National Headquarters of ZENKYOREN
 April 2006 President of IT Planning Division, National Headquarters of ZENKYOREN
 August 2008 President of Corporate Planning Division, National Headquarters of ZENKYOREN
 April 2010 President of Public Relations Division, National Headquarters of ZENKYOREN
 August 2010 Representative Director, Senior Executive Vice President of Chuo Computer Systems Co., Ltd.
 June 2013 Representative Director, President of Chuo Computer Systems Co., Ltd.
 July 2015 Executive Vice President of ZENKYOREN
 July 2016 Senior Executive Vice President of ZENKYOREN
 June 2017 President of The Kyoei Fire and Marine Insurance Company, Limited ("Kyoeikasai")
 January 2021 Audit & Supervisory Board Member of the Company (Current)
 June 2021 Executive Advisor of Kyoeikasai (Current)



Outside Audit & Supervisory Board Member
SHIRATORI Miwako
 April 2005 Joined FUYOU AUDIT CORPORATION
 August 2010 President of Miwako CPA Firm
 April 2014 Representative Partner of Shizuoka Mirai Tax Corporation (Current)
 May 2017 Audit & Supervisory Board Member of the Company (Current)

Executive Officer

Managing Executive Officer
URUSHIBATA Ikumi

Executive Officer
INOUE Jun

Executive Officer
KONAGAI Kiyoshi

Managing Executive Officer
IWATA Kouichi

Executive Officer
IKEUCHI Toshihiro

Executive Officer
KAWASHIMA Takahiro

Managing Executive Officer
NIIGAWA Kazuya

Executive Officer
NAKANO Yuki

Executive Officer
KATAGIRI Sadamitsu

Executive Officer
YANO Hiroyuki

Evaluating the Effectiveness of the Board of Directors

Kumiai analyzes and evaluates the effectiveness of the Board of Directors once a year in order to improve its functions.

In the fiscal year ended October 2022, we conducted a survey for all Directors and Audit & Supervisory Board Members, which was overseen by an outside consultant. Results were then discussed at the Board of Directors, and then the effectiveness of the Board of Directors was analyzed and evaluated. We confirmed that the Board of Directors is operating properly and is effective. At the same time, certain items came to light related to the Board of Directors operations that require improvement, and we will continue with initiatives to improve these.

■ Evaluation Process

Evaluations are conducted using a survey that combines a 5-point evaluation with descriptive answers that target all Directors and Audit & Supervisory Board Members. The Board of Directors met on December 14, 2022 to review the results of the survey and to discuss issues and response measures.

■ Survey Items

The survey contained a total of 26 questions sorted into five main categories.

1. Composition and operation of directors
2. Management strategies and business strategies
3. Corporate ethics and risk management
4. Performance monitoring, and management evaluation and remunerations
5. Dialog with shareholders

■ Evaluation

According to the results of the effectiveness evaluation for FY2022, it was confirmed that the Board of Directors is effective as a whole. Regarding the composition of the Directors, diversity such as appointing female Directors and internationality were pointed out as issues. It was also confirmed that the environment for discussions at Board of Directors was improved, resulting in more detailed reports being made, and it especially became easier to share inhouse information with Outside Directors. We will improve the effectiveness of the Board of Directors through honest exchange of opinions in order to have meaning discussions.

Remunerations for Directors

The remuneration system is designed to function as an incentive for Directors to continuously improve Kumiai's corporate value. It is the basic policy of Kumiai to set an appropriate level based on the responsibilities of each job when determining remunerations for individual Directors. Remunerations for Directors include monetary reward and non-monetary reward (transfer restricted stock remuneration). Transfer restricted stock remuneration is given to Directors who are not Outside Directors.

Monetary reward for Directors is determined based on a comprehensive consideration of each Director's position, responsibilities, contribution to management, and consolidated performance.

Transfer restricted stock remuneration for Directors (excluding Outside Directors) is set to a certain percentage of monetary reward. The amount for transfer restricted stock remuneration is within the range for transfer restricted stock remuneration that has been approved at the General Meeting of Shareholders.

The remuneration amount for Directors and the ratio of monetary reward to transfer restricted stock remuneration are determined after a comprehensive consideration of items such as the economic environment, market environment, and business performance within the framework of the approval given in advance at the General Meeting of Shareholders. It is determined by the Representative Director selected by the Board of Directors after deliberation and reporting by the Nomination and Remuneration Committee, which is an advisory body to the Board of Directors and is comprised mostly of Outside Directors.

Message from Outside Directors



Outside Director
NISHIO Tadahisa

Kumiai's strength lies in our R&D capabilities, which has allowed us to acquire registration for six novel active ingredients over the past ten years. We have a strong global product called AXEEV®, which is an herbicide for cropland that generates more than 50 billion yen in sales by itself. However, we are always looking for our next big product. Of course, the Management are endeavoring expand research areas and business areas. In order to improve R&D capabilities, a new Chemical Research Institute is scheduled to start full-scale operation from the fall of 2023, in which we have invested 7 billion yen. As a manufacturer of fine chemicals, we are making serious efforts toward sustainability management including reducing the load on the environment. As an Outside Director, I am always aware of my role, which is to view things from an objective perspective and then share my opinion in order to inspire management.



Outside Director
IKEDA Kanji

FY2022 was the third year of the COVID-19 pandemic and saw the invasion of Ukraine by Russian accompanied by sharp fluctuations in currencies, which had a significant impact on the global economy. However, despite these, we were able to develop solid business in domestic and overseas market, and achieved performance beyond our expectations. This was the result of overall corporate efforts. Still, we are not satisfied, and are aiming to create greater long-term corporate value. We have made a major change in our management policy under the new slogan of "Practicing Sustainability Management," where we have identified materialities such as contribution to global food security and response to climate change, and have boldly begun to take on the challenge of achieving these under the new system. This makes me excited to see the results from FY2023 and beyond.



Outside Director
YAMANASHI Chisato

The consolidated financial results for FY2022 show record-high profits in spite of soaring raw material costs. This achievement is due to our unified development of R&D, production, and sale in the agricultural chemical business and fine chemicals business inside and outside Japan centering on our AXEEV® product. In November of 2021, we established our "Basic Policy on Sustainability" to promote sustainability management. There are many challenges to be addressed, including mitigation of climate change and environmental impact (Greenhouse gas emissions: 30% reduction from FY 2019 levels by FY 2030), increasing the percentage of females at the positions of Section Manager or higher and the percentage of male employees taking childcare leave.

As the first female Outside Director of the Company, it is my desire to participate in sustainability management and help further improve the Company's corporate value by maintaining new awareness and creativity.

Compliance

Kumiai Group views Compliance as an important element of sustainability management, and our “Basic Policy on Sustainability” requires the realization of a disciplined organization.

Because of this, we also established our “Basic Policy on Compliance” for organizing systems and promote various initiatives.

Basic Policy on Compliance

Based on diligent compliance education activities, it is our aim to emphasize and raise compliance awareness and foster a corporate culture where officers and employees act in harmony with the Corporate Philosophy and Code of Conduct.

Three Fundamentals of Compliance

1. Active communication at workplace

Being able to ask for help or advice without hesitation when you need it, sharing something you noticed to your supervisor or a senior worker, and speaking up whenever you feel that something is wrong at workplace.

2. Considering your behavior from the perspective of the public as if it were broadcasted on the news

Stop and think calmly to maintain a public perspective (common sense).

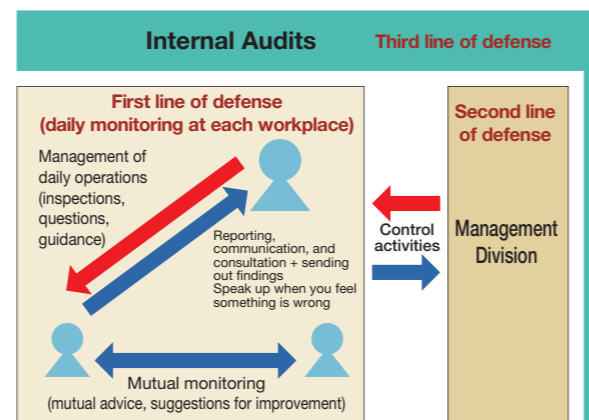
3. Constant awareness that you are wearing a uniform bearing the Company's name

Since the Company name appears on the back of the uniform, it is easy to forget, but others can always see it. Also, the uniform does not come off after the end of work.

Based on these Three Fundamentals of Compliance, we will engage not only in defensive compliance, but proactive compliance as we endeavor to earn the trust of society and improve corporate value continuously.

Monitoring and Control with Compliance and Internal Control

Company risk management functions can be explained in terms of three lines of defense, which are (1) business divisions, (2) management divisions, and (3) internal audit division. Kumiai Group performs mutual monitoring and control within business divisions and within divisions on compliance and internal control. Our routine monitoring includes (1) daily monitoring by supervisors, (2) cross-monitoring among colleagues at workplace, and (3) sharing individual awareness to superiors and seniors. This three-way monitoring is important for detecting and preventing misconduct and mistakes by individuals. Follow-up and correction measures are handled within report line in the workplace or by using the internal reporting system (Helpline). Daily monitoring is done at each workplace, and this is the first line of defense against misconduct and mistakes. We have also added monitoring that is handled by management divisions and internal audits to increase the effectiveness of internal control. There could be cases where a certain custom in a company is actually a law violation without it being recognized as misconduct. Therefore, it is essential for individuals to speak up when they feel something is wrong. We review procedures for this and update manuals every year to improve the effectiveness of internal control.



System

In Kumiai, important matters related to compliance are discussed by the Risk Management & Compliance Committee, which is chaired by the President. We hold meetings twice a year.

We also have the Corporate Governance Office in charge of compliance. To improve its effectiveness, we provide compliance education and training for officers and employees. We are always looking for ways to improve the system. (Organization chart in Corporate Governance on page 54)

Compliance Promotion

Internal reporting system

Kumiai Group has established an external consultation desk (compliance and harassment) as an internal reporting system (Helpline). To help employees understand how to use the system, we published a Q&A. The Helpline phone number and website address are posted in the monthly Compliance Newsletter (e-mail magazine), and we allow anonymous reporting to encourage its use. The Helpline also functions as a window for whistleblowing*, and “Regulations for using the internal reporting system” have been established to indicate the protection of the person making report and proper way of processing report.

The number of reports to the internal reporting system (Helpline) during FY2022 was 13 for the whole Kumiai Group (5 from Kumiai itself), and there was no case of whistleblowing. We prepare a poster for informing about the internal reporting system and distribute it to group Companies, and create an environment where it is easy to consult.

* Whistleblowing: Reporting actions regarding violation of certain laws and regulations

Compliance Education

As requests on compliance from stakeholders have become more diverse and strict, if the statement or actions by Company employees are out of harmony with social norms, it could lead to loss of trust from society. During FY2022, we provided in-person compliance training by means of an inhouse lecturer for new employees and mid-career hires.

Compliance awareness survey

Kumiai Group regularly conducts a compliance awareness survey with employees. This allows us to understand tendencies for the whole group, offices, and individual workplaces, which we use to promote compliance and education/training.

Distribution of a compliance newsletter

Kumiai Group has a Compliance Newsletter (e-mail magazine) that is distributed monthly to all officers and employees. It includes examples along with explanations regarding compliance and harassment cases that are common at workplace, and cases that have appeared in the news. We create opportunities for officers and employees to understand the latest information to improve the compliance awareness of the whole group.

Data on Compliance

		FY2019	FY2020	FY2021	FY2022
Number of reports and consultations made to the internal reporting system (Helpline)	Cases	4 (1)	10 (7)	11 (2)	13 (5)
Fines and settlement costs related to bribery	Millions of yen	0	0	0	0
Fines and settlement costs related to anti-competitive practices	Millions of yen	0	0	0	0

Kumiai Chemical Group (Kumiai Chemical only)

Risk Management

Until FY2022, Kumiai had discussed matters related to risk management and compliance at the Sustainability Promotion Committee. However, we established a Risk Management & Compliance Committee in FY2023 to strengthen the system for discussing such matters in a more focused manner.

We established a “Basic Policy on Risk Management” based on our “Basic Policy on Sustainability.”

The Risk Management & Compliance Committee chaired by the President examines the formulation of measures related to confirmation and evaluation of risk coverage and risk management.

Basic Policy on Risk Management

1. The Kumiai Group believes that risk management is the key to internal control for gaining the trust of stakeholders and for achieving continuous growth. As part of our social responsibility as a company, we recognize the importance of proper risk management, including proper management to prevent risks, and prompt reporting and information sharing. We endeavor to foster a risk culture through continuous engagement in risk management.
2. For handling risks during ordinary times, Kumiai Group considers cost-effectiveness measures for risks that affect the whole Company or cross-organizations, and then aggregate the risk management development and operation status by the department in charge. In order to handle risks during emergencies, we establish a Risk Response Headquarters and are working to minimize risks by determining measures taking correspondences with externals.

System

The Corporate Governance Office oversees and promotes risk management according to the “Risk Management Rules” for handling risks during ordinary times. The Risk Management & Compliance Committee identifies risks that affect the whole Company or cross-organizations as well as risks for each department, creates measures, and then aggregates and shares risk information with each department.

Regarding our business continuity plan (BCP), we take a result event approach for handling damage to management resources in order to respond to all hazards. The scope applies to production and supply systems for agricultural chemicals and fine chemicals as well as factories belonging to group companies. We have a system to establish a Risk Response Headquarters to handle critical risks such as during emergencies, according to our “Management Risk Control Rules.”

To respond to the business risks in connection with the spread of COVID-19 in FY2020, we set up a Pandemic Response Headquarters in accordance with our BCP for handling difficulties related to officers and employees coming to work, and deployed specific horizontal measures at group companies. At the same time, effort was made to monitor the infection status of officers and employees, and to help infected people and close contacts. We also reduced the risk of infection by expanding application of our staggered workday system and establishing a remote work system that institutionalized working at home and satellite offices.

When implementing the remote work system, we established the system according to our “Information Security Operation Management Regulations” to ensure the same security level as for inhouse access when accessing the inhouse system during remote work.

Efforts have also been made to strengthen the security level such as by giving training on information security to all employees, and setting comprehension requirements for remote work based on test scores. We also established an environment for quickly detecting and responding to unknown malware infections and malicious internal leaks using systems such as behavior detection at endpoints and for the entire network.

Major Risks and Countermeasures by Kumiai Group

Major risks			Overview of risk	Overview of countermeasure
1	Agricultural Chemicals and Agriculture-Related Business	Japan	Decrease in net sales in Japan due to various external environmental factors (weather, competitive products, laws and regulations)	Collecting information about changes of external environment and cooperating with related organizations
		Outside Japan	Decrease in sales due to changes in the agricultural chemical market (weather, grain prices, crop acreage, resistance development, competitive products, generic products, laws and regulations)	Improving the accuracy of market forecasts, strengthening information gathering and analysis capabilities, and improving the accuracy of demand assessments and risk monitoring, and responding quickly when these occur
2	Fine Chemicals Business		Decrease in net sales due to a drop in demand for end products and decreased sales volume due to specification changes	Working with sales partners for responding quickly to changing needs
3	Developing New Products		It takes much time to develop agricultural chemicals, so loss of sales opportunities resulting from revisions to laws and regulations in each country and changes in the market environment, impact development success	Quickly and accurately understanding regulatory trends and market trends in each country including revisions to laws
4	Exchange Rate Fluctuation		Decrease in net sales and increase in procurement cost due to sudden exchange rate fluctuations	Creating a management plan that incorporates unification of currencies in sales and procurement, forward exchange contracts and impact of exchange rate fluctuations
5	Changes of laws and regulations		Increase in costs for responding to changes with laws and tightening of regulations in each country related to the handling of chemical substances	Response and coverage through Responsible Care activities, and confirming costs
6	Product quality		Problems with product quality due to unexpected quality issues, defects, incidents	Proper quality management based on ISO, and thorough implementation of defect detection via complaint management
7	Production and procurement of raw materials		Delays and suspension of manufacturing at Kumiai and increase in procurements costs due to insufficient supply of raw materials as a result of incidents at suppliers, laws and regulations in the country of location, and geopolitical risks	Ensuring inventory by ordering raw materials early, arranging substitutes, and diversification of supply sources for important raw materials
8	Impaired asset accounting application		Worsening financial situation due to impairment loss as group business assets decline	Monitoring management by dispatching officers to group companies
9	Intellectual property		Decrease in net sales or leakage of technology and know-how due to infringement of our intellectual property Compensation payments due to violation of another company's intellectual property rights	Establishing a patent network for substances, manufacturing methods, intermediates, intended use, formulations, and usage methods Monitoring patent applications by other companies and the application examination status
10	Information security		System outages due to cyberattacks or other unintentional incidents, leakage of confidential information	Implementing various prevention measures, and developing a response system in the unlikely event of occurrence
11	Climate change		Increase in costs for responding to stricter greenhouse gas (GHG) emission regulations, and loss of trust from stakeholders due to insufficient efforts toward realizing a decarbonized society	Establishing GHG emission reduction targets, implementing meaningful capital investment, and promoting information disclosure via TCFD
12	Natural disasters and infection disease		Suspension of operations at business sites and disruptions to supply chains due to sudden large-scale natural disasters and pandemics caused by emerging infection diseases	Formulating and implementing a BCP and preventive measures for facilities
13	COVID-19 infection		Restriction of business activities due to employee infection, and long-term spread in society	Thorough implementation of basic preventive measures for infection and business operations under the BCP, and promotion of work style reforms according to new lifestyles

Financial Review

Long-term Business Performance Trends

Operating Results	FY2018	FY2019	FY2020	FY2021	FY2022
Net sales (Millions of yen)	96,846	103,400	107,280	118,176	145,302
Operating income (Millions of yen)	5,582	7,639	8,283	8,456	12,673
Operating margin (ROS) (%)	5.8%	7.4%	7.7%	7.2%	8.7%
Equity in earnings of affiliates (Millions of yen)	1,925	2,116	2,311	2,073	2,224
Ordinary income (Millions of yen)	8,074	9,735	9,916	12,829	23,570
Net income attributable to owners of parent (Millions of yen)	4,706	6,789	6,618	9,023	16,329

Financial Status	FY2018	FY2019	FY2020	FY2021	FY2022
Total assets (Millions of yen)	132,680	142,660	154,857	169,172	204,604
Net assets (Millions of yen)	97,739	99,260	103,959	109,954	121,995
Equity ratio (%)	67.9	65.9	63.6	61.4	56.4
Interest-bearing liabilities (Millions of yen)	4,007	13,426	20,209	23,077	35,678
D/E ratio (times)	0.05	0.14	0.21	0.22	0.31
Return on Equity (ROE) (%)	5.1	7.4	6.9	8.9	14.9

Indicator per share	FY2018	FY2019	FY2020	FY2021	FY2022
Net income per share (Yen)	37.46	54.1	52.92	72.13	135.45
Net assets per share (Yen)	718.68	750.32	787.01	830.44	960.96
Dividends per share (Yen)	10	11	12	15	22
Dividend payout ratio (%)	26.7	20.3	22.7	20.8	16.2

Other, net	FY2018	FY2019	FY2020	FY2021	FY2022
Capital investment (Millions of yen)	3,110	4,869	6,563	5,930	9,639
Depreciation and amortization (Millions of yen)	2,943	3,102	3,768	4,318	4,837
R&D expenses (Millions of yen)	5,247	4,839	5,107	4,948	5,144

*FY2018: November 2017 to October 2018
 FY2019: November 2018 to October 2019
 FY2020: November 2019 to October 2020
 FY2021: November 2020 to October 2021
 FY2022: November 2021 to October 2022

Consolidated Balance Sheet: Assets

(Unit: Millions of yen)

	As of October 31, 2021	As of October 31, 2022
ASSETS		
Current assets:		
Cash and deposits	19,755	22,300
Notes and accounts receivable-trade	33,902	—
Notes, accounts receivable-trade, and contract assets	—	49,702
Marketable securities	300	—
Merchandise and finished products	32,542	38,411
Work in process	9,554	10,250
Raw materials and supplies	5,748	7,531
Other, net	3,617	4,748
Allowance for doubtful accounts	(214)	(107)
Total current assets	105,203	132,836
Fixed assets:		
Property, plant and equipment:		
Buildings and structures, net	12,848	13,992
Machinery, equipment and vehicles, net	9,293	10,018
Land	12,145	12,389
Construction in progress	1,263	5,006
Other property, plant and equipment, net	1,731	1,739
Total property and equipment	37,281	43,145
Intangible fixed assets:		
Goodwill	4,081	3,419
Other, net	1,558	1,412
Total intangible assets	5,639	4,831
Investments and other assets:		
Investments securities	18,441	21,038
Long-term loans	318	318
Deferred tax assets	918	1,061
Net defined benefit asset	104	77
Other, net	1,398	1,465
Allowance for doubtful accounts	(130)	(166)
Total investments and other assets	21,048	23,793
Total fixed assets	63,968	71,768
Total assets	169,172	204,604

Consolidated Balance Sheet: Liabilities and net assets

(Unit: Millions of yen)

	As of October 31, 2021	As of October 31, 2022
LIABILITIES		
Current liabilities:		
Notes and accounts payable-trade	16,710	20,985
Short-term loan payable	6,089	22,653
Accounts payable-other	7,051	8,678
Income taxes payable	2,842	4,765
Provision for bonuses	1,628	1,713
Provision for environmental measures	280	394
Other, net	1,031	3,680
Total current liabilities	35,630	62,868
Long-term liabilities:		
Long-term loan payable	16,303	12,280
Deferred tax liabilities	1,603	1,398
Provision for directors' retirement benefits	414	488
Provision for environmental measures	164	210
Net defined benefit liability	4,130	4,394
Asset retirement obligations	41	42
Other, net	934	929
Total long-term liabilities	23,587	19,741
Total liabilities	59,218	82,609
NET ASSETS		
Shareholders' equity		
Share capital	4,534	4,534
Capital surplus	37,370	37,403
Retained earnings	72,710	86,649
Treasury stock, at cost	(5,334)	(9,370)
Total Shareholders' equity	109,281	119,216
Accumulated other comprehensive income		
Valuation differences on available-for-sale securities	1,320	1,485
Foreign currency translation adjustments	(6,728)	(5,121)
Remeasurements of defined benefit plans	17	(112)
Total accumulated other comprehensive loss	(5,392)	(3,748)
Non-controlling interests	6,065	6,527
Total net assets	109,954	121,995
Total liabilities and net assets	169,172	204,604

Consolidated Statements of Income

(Unit: Millions of yen)

	Year ended October 31, 2021	Year ended October 31, 2022
Net sales	118,176	145,302
Cost of sales	89,133	111,101
Gross profits	29,043	34,201
Selling, general and administrative expenses	20,587	21,529
Operating income	8,456	12,673
Non-operating income:		
Interest income	23	50
Dividend income	231	169
Reversal of allowance for doubtful accounts	3	73
Equity in earnings of affiliates	2,073	2,224
Foreign exchange gains	1,900	8,470
Other, net	352	164
Total non-operating income	4,583	11,149
Non-operating expenses:		
Interest expenses	141	180
Non-deductible consumption tax	34	28
Other, net	35	44
Total non-operating expenses	210	251
Ordinary income	12,829	23,570
Extraordinary income:		
Gain on disposal of fixed assets	119	114
Gain on sales of investment securities	236	—
Subsidy income	—	178
Insurance income	6	112
Gain on extinguishment of tie-in shares	44	—
Total extraordinary income	406	404
Extraordinary loss:		
Loss on disposal of fixed assets	353	228
Loss on reduction of fixed assets	—	43
Impairment losses	49	—
Loss on sales of investment securities	0	—
Loss on valuation of investment securities	—	6
Loss on sales of golf club membership	1	—
Loss on valuation of golf club membership	6	—
Environmental expenses	406	461
Loss on disaster	—	117
Total extraordinary loss	815	856
Income before income taxes and non-controlling interests	12,419	23,119
Income taxes-current	3,884	6,701
Income taxes-deferred	(697)	(291)
Total income taxes	3,187	6,411
Net income	9,232	16,709
Net income attributable to non-controlling interests	209	379
Net income attributable to owners of parent	9,023	16,329

Consolidated Statements of Changes in Net Assets

Year ended October 31, 2021

(Unit: Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income				Non-controlling interests	Total net assets
	Share capital	Capital surplus	Retained earnings	Treasury stock, at cost	Total Shareholders' equity	Valuation differences on available-for-sale securities	Foreign currency translation adjustments	Remeasurement of defined benefit plans	Total accumulated other comprehensive loss		
Balance at the end of the previous period	4,534	37,081	65,314	(5,374)	101,555	1,110	(4,114)	(137)	(3,142)	5,545	103,959
Cumulative impact from changes in accounting policy					—				—		—
Balance at the end of the previous period reflecting changes in accounting policy	4,534	37,081	65,314	(5,374)	101,555	1,110	(4,114)	(137)	(3,142)	5,545	103,959
Changes during the period											
Cash dividends			(1,626)		(1,626)						(1,626)
Net income attributable to owners of parent			9,023		9,023						9,023
Purchase of treasury stock				(2)	(2)						(2)
Disposal of treasury stock		7		42	50						50
Increase (decrease) in capital surplus due to change in equity in consolidated subsidiaries		281			281						281
Changes to items other than shareholders' equity during the period, net						210	(2,614)	154	(2,250)	520	(1,731)
Total changes during the period	—	289	7,397	40	7,725	210	(2,614)	154	(2,250)	520	5,995
Balance at the end of the period	4,534	37,370	72,710	(5,334)	109,281	1,320	(6,728)	17	(5,392)	6,065	109,954

Year ended October 31, 2022

(Unit: Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income				Non-controlling interests	Total net assets
	Share capital	Capital surplus	Retained earnings	Treasury stock, at cost	Total Shareholders' equity	Valuation differences on available-for-sale securities	Foreign currency translation adjustments	Remeasurement of defined benefit plans	Total accumulated other comprehensive loss		
Balance at the end of the previous period	4,534	37,370	72,710	(5,334)	109,281	1,320	(6,728)	17	(5,392)	6,065	109,954
Cumulative impact from changes in accounting policy			(179)		(179)				—		(179)
Balance at the end of the previous period reflecting changes in accounting policy	4,534	37,370	72,532	(5,334)	109,102	1,320	(6,728)	17	(5,392)	6,065	109,775
Changes during the period											
Cash dividends			(2,212)		(2,212)						(2,212)
Net income attributable to owners of parent			16,329		16,329						16,329
Purchase of treasury stock				(4,082)	(4,082)						(4,082)
Disposal of treasury stock		(0)		46	46						46
Increase (decrease) in capital surplus due to change in equity in consolidated subsidiaries		33			33						33
Changes to items other than shareholders' equity during the period, net						165	1,607	(129)	1,644	462	2,106
Total changes during the period	—	33	14,117	(4,036)	10,114	165	1,607	(129)	1,644	462	12,220
Balance at the end of the period	4,534	37,403	86,649	(9,370)	119,216	1,485	(5,121)	(112)	(3,748)	6,527	121,995

Consolidated Statements of Cash Flows

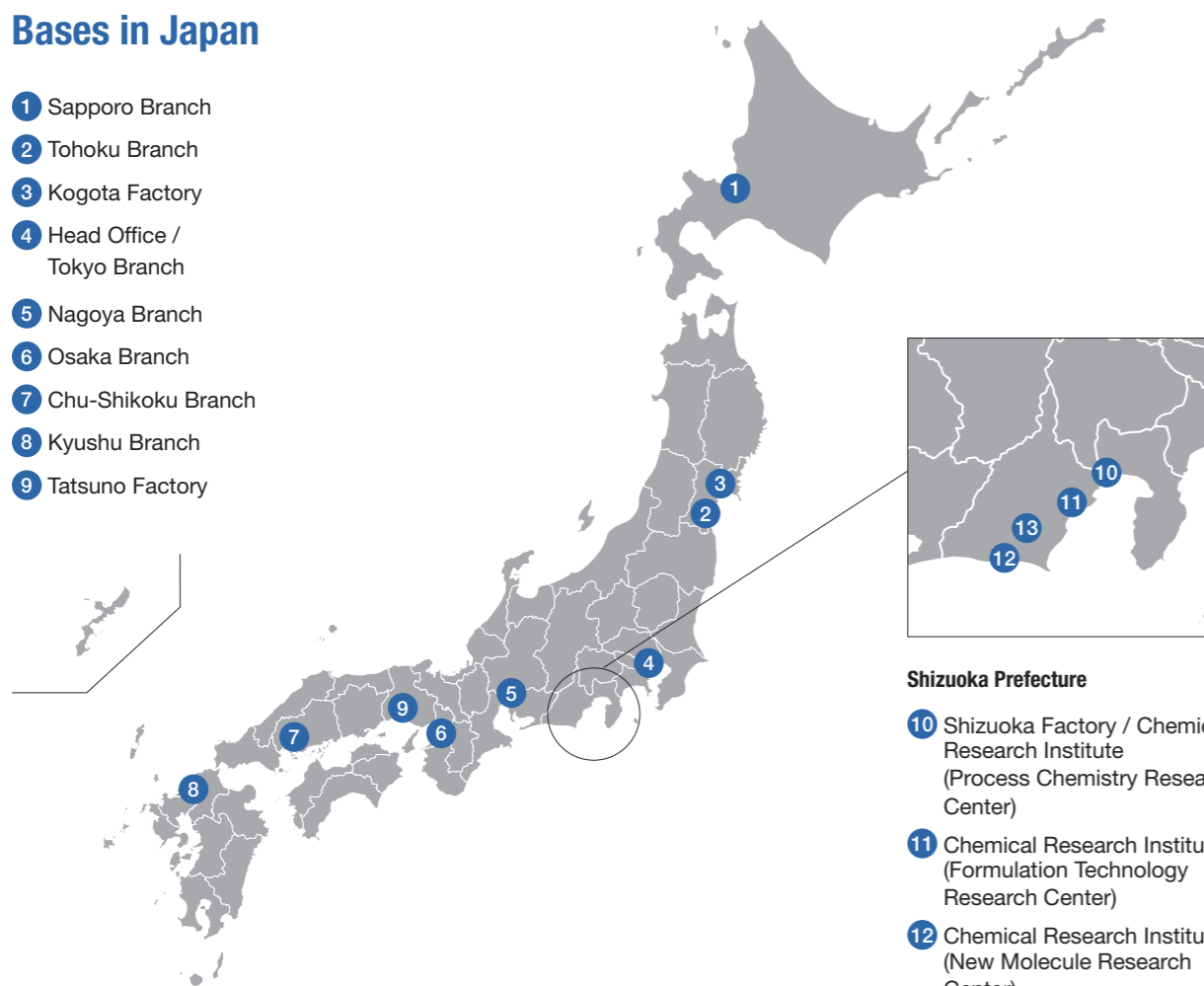
(Unit: Millions of yen)

	Year ended October 31, 2021	Year ended October 31, 2022
Net cash provided by operating activities		
Income before income taxes and non-controlling interests	12,419	23,119
Depreciation and amortization	3,687	4,175
Amortization of goodwill	631	662
Increase (decrease) in allowance for doubtful accounts	126	(91)
Increase in provision for bonuses	82	82
Increase in provision for environmental measures	17	161
Increase (decrease) in net defined benefit asset and liability	36	104
Increase (decrease) in provision for directors' retirement benefits	(229)	75
Interest and dividend income	(254)	(218)
Equity in earnings of affiliates	(2,073)	(2,224)
Interest expenses	141	180
Foreign exchange gains	(873)	(5,382)
Subsidy income	—	(178)
Loss on disposal of property, plant and equipment	234	114
Loss on reduction of fixed assets	—	43
Impairment losses	49	—
Gain on sales of investment securities	(236)	—
Loss on valuation of investment securities	—	6
Increase in notes and accounts receivable	(4,971)	(13,382)
Increase in inventories	(4,576)	(5,636)
Increase (decrease) in notes and accounts payable	315	(1,073)
Other, net	1,387	2,326
Sub total	5,913	2,861
Interest and dividend income received	785	952
Interest expenses paid	(135)	(183)
Income taxes paid	(2,090)	(4,790)
Income taxes refund	5	1
Net cash provided by operating activities	4,478	(1,159)
Net cash used in investing activities		
Decrease in time deposits, net	355	102
Proceeds from redemption of securities	—	300
Purchase of property, plant and equipment	(6,627)	(7,817)
Proceeds from sale of property, plant and equipment	129	180
Purchase of intangible assets	(314)	(164)
Purchase of investments in securities	(5)	(365)
Proceeds from sales of investments in securities	2,470	—
Payments of loans receivable	(629)	(324)
Payments of loans receivable	661	123
Purchase of insurance funds	(103)	(75)
Proceeds from maturity of insurance funds	198	176
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(1,186)	—
Subsidies received	—	178
Other, net	(260)	(138)
Net cash used in investing activities	(5,311)	(7,823)
Net cash used in financing activities		
Increase (decrease) in short-term bank loans, net	(6,304)	16,553
Proceeds from long-term loans payable	11,032	—
Repayment of long-term loans payable	(2,433)	(4,307)
Net increase in treasury stock	(2)	(4,082)
Cash dividends paid	(1,620)	(2,206)
Cash dividends paid to non-controlling interests	(41)	(119)
Other, net	(192)	(224)
Net cash used in financing activities	439	5,615
Effect of exchange rate changes on cash and cash equivalents	1,076	6,014
Net increase in cash and cash equivalents	681	2,647
Cash and cash equivalents at beginning of year	18,706	19,424
Increase in cash and cash equivalents resulting from merger	37	—
Cash and cash equivalents at end of year	19,424	22,071

Office Information

Bases in Japan

- 1 Sapporo Branch
- 2 Tohoku Branch
- 3 Kogota Factory
- 4 Head Office / Tokyo Branch
- 5 Nagoya Branch
- 6 Osaka Branch
- 7 Chu-Shikoku Branch
- 8 Kyushu Branch
- 9 Tatsuno Factory



Shizuoka Prefecture

- 10 Shizuoka Factory / Chemical Research Institute (Process Chemistry Research Center)
- 11 Chemical Research Institute (Formulation Technology Research Center)
- 12 Chemical Research Institute (New Molecule Research Center)
- 13 Life Science Research Institute (Agrochemical Research Center, Life & Environment Research Center)

RIKENGREEN CO., LTD.

RIKENGREEN is developing business in three areas, which are the "Green Zone Agents and Materials Business," "Specialty Chemicals Business," and "Civil Engineering and Greening Construction Business." We provide research and development along with technical support.



IHARANIKKEI CHEMICAL INDUSTRY CO., LTD.

IHARANIKKEI CHEMICAL INDUSTRY manufactures raw materials for fine chemicals such as agricultural chemicals, dyes and pigments, resins, and fibers by focusing mainly on chemicals derived from toluene and xylene chlorination.



K-I CHEMICAL INDUSTRY CO., LTD.

K-I CHEMICAL INDUSTRY handles various organic intermediates, and is developing business in three areas, which are the "Fine Chemicals Business," "Industrial Chemicals Business," and "Bio Products Business."



Ihara Construction Industry Co., Ltd.

Ihara Construction Industry engages in work such as construction, land development, road paving, and installation of water and sewage systems mainly in Shizuoka Prefecture. We have manufacturing bases in four locations for the Expanded Polystyrene Business.



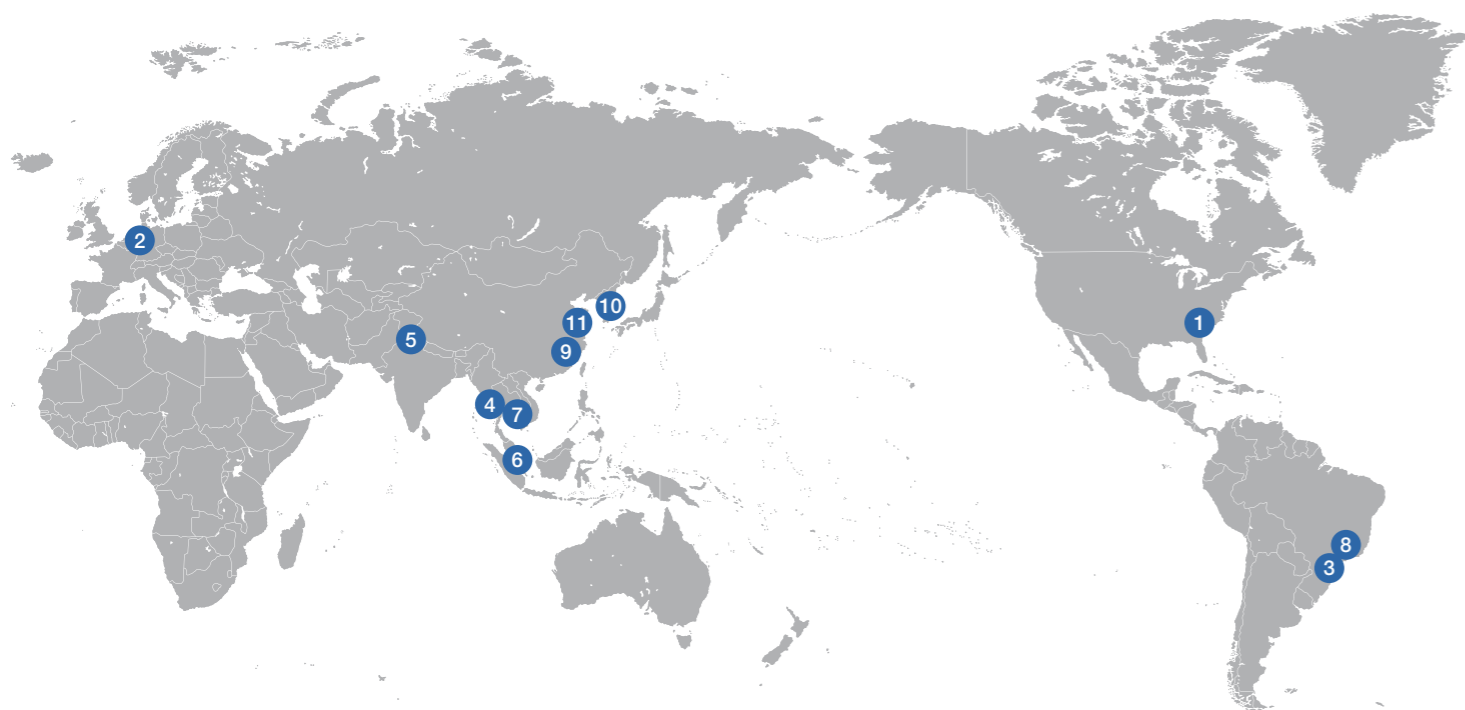
List of KUMIAI CHEMICAL INDUSTRY CO., LTD. Offices

Head Office/ Tokyo Branch	4-26, Ikenohata 1-chome, Taito-ku, Tokyo 110-8782, Japan	Kyushu Branch	1-28, Gion-machi, Hakata-ku, Fukuoka City, Fukuoka 812-0038, Japan
Sapporo Branch	2-2, Kitaichijonishi 4-chome, Chuo-ku, Sapporo City, Hokkaido 060-0001, Japan	Process Chemistry Research Center	2256, Nakanogo, Fuji City, Shizuoka 421-3306, Japan
Tohoku Branch	6-30, Tsutsujigaoka 3-chome, Miyagino-ku, Sendai City, Miyagi 983-0852, Japan	Formulation Technology Research Center	100, Shibukawa, Shimizu-ku, Shizuoka City, Shizuoka 424-0053, Japan
Nagano Sales Office	1605-14, Midori-cho, Nagano City, Nagano 380-0813, Japan	New Molecule Research Center	408-1, Shiohinden, Iwata City, Shizuoka 437-1213, Japan
Niigata Sales Office	1505, Koshin, Nishi-ku, Niigata City, Niigata 950-2023, Japan	Agrochemical Research Center	3360, Kamo, Kikugawa City, Shizuoka 439-0031, Japan
Nagoya Branch	2-12, Sakae 2-chome, Naka-ku, Nagoya City, Aichi 460-0008, Japan	Life & Environment Research Center	276, Tamari, Kakegawa City, Shizuoka 436-0011, Japan
Shizuoka Sales Office	69-1, Nagasaki, Shimizu-ku, Shizuoka City, Shizuoka 424-0065, Japan	Shizuoka Factory	1800, Nakanogo, Fuji City, Shizuoka 421-3306, Japan
Osaka Branch	1-30, Toyotsu-cho, Suita City, Osaka 564-0051, Japan	Kogota Factory	100, Yamanokami, Minamikogota, Misato-machi, Toda-gun, Miyagi 987-0003, Japan
Chu-Shikoku Branch	14-16, Hikari-machi 2-chome, Higashi-ku, Hiroshima City, Hiroshima 732-0052, Japan	Tatsuno Factory	555, Ibocho-yamashita, Tatsuno City, Hyogo 679-4151, Japan
Matsuyama Sales Office	6-10, Asoda-machi 5-chome, Matsuyama City, Ehime 790-0952, Japan		

List of Consolidated Subsidiaries (Japan)

RIKENGREEN CO., LTD.	TIXTOWER UENO, 8F, 8-1, Higashiueno 4-chome, Taito-ku, Tokyo 111-8520, Japan	NIHON PRINTING INDUSTRY CO., LTD.	14-35, Nakayoshida, Suruga-ku, Shizuoka City, Shizuoka 422-8001, Japan
IHARANIKKEI CHEMICAL INDUSTRY CO., LTD.	5700-1, Kambara, Shimizu-ku, Shizuoka City, Shizuoka 421-3203, Japan	KUMIKA LOGISTICS CO., LTD.	100, Shibukawa, Shimizu-ku, Shizuoka City, Shizuoka 424-0053, Japan
K-I CHEMICAL INDUSTRY CO., LTD.	328, Shiohinden, Iwata City, Shizuoka 437-1213, Japan	K-I INFORMATION SYSTEM CO., LTD.	Kumiai Chemical Industry Bldg., 4-26, Ikenohata 1-chome, Taito-ku, Tokyo 110-8782, Japan
Ihara Construction Industry Co., Ltd.	Ihara Bldg., 1F, 69-1, Nagasaki, Shimizu-ku, Shizuoka City, Shizuoka 424-0065, Japan	ASADA SHOJI CO., LTD.	17-10, Misuji 1-chome, Taito-ku, Tokyo 111-0055, Japan
ONOMICHI KUMIKA INDUSTRY CO., LTD.	160, Chojabara 2-chome, Onomichi City, Hiroshima 722-0221, Japan	NEP CO., LTD.	Kumiai Chemical Industry Bldg., 4-26, Ikenohata 1-chome, Taito-ku, Tokyo 110-8782, Japan
RYOCHI SANGYO CO., LTD.	11-1, Oroshi-shin-machi, Shimonoseki City, Yamaguchi 751-0818, Japan		

Global Bases



List of Consolidated Subsidiaries (Global)

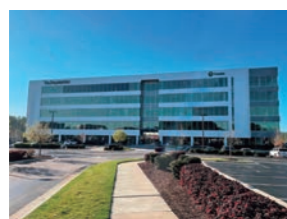
- 1 K-I CHEMICAL U.S.A. INC.
- 2 K-I CHEMICAL EUROPE SA/NV
- 3 K-I CHEMICAL DO BRASIL LTDA.
- 4 Iharanikkei Chemical (Thailand) Co., Ltd.
- 5 PI Kumiai Private Ltd.
- 6 Asiatic Agricultural Industries Pte. Ltd.

List of Equity-method Affiliates (Global)

- 7 T.J.C. CHEMICAL CO., LTD.
- 8 IHARABRAS S.A. INDUSTRIAS QUIMICAS
- 9 Shanghai Qunli Chemical Co., Ltd.

Other Affiliated Companies

- 10 KUMIKA KOREA CO., LTD.
- 11 KUMIAI CHEMICAL SHANGHAI CO., LTD



1 K-I CHEMICAL U.S.A. INC.



2 K-I CHEMICAL EUROPE SA/NV



3 Asiatic Agricultural Industries Pte. Ltd.



3 K-I CHEMICAL DO BRASIL LTDA.



10 KUMIKA KOREA CO., LTD.



11 KUMIAI CHEMICAL SHANGHAI CO., LTD

Company Profile (As of October 31, 2022)

Company Name	KUMIAI CHEMICAL INDUSTRY CO., LTD.
Address	4-26, Ikenohata 1-chome, Taito-ku, Tokyo 110-8782, Japan Tel: +81-(0)3-3822-5036
Established	June 1949
Share Capital	4,534 million yen
Number of employees	1,832 (consolidated)

Stock Information (As of October 31, 2022)

Stock Exchange Listing	Tokyo Stock Exchange Prime Market
Securities Code	4996
Shareholder registry administrator	Mitsubishi UFJ Trust and Banking Corporation
Total number of authorized shares	200,000,000
Total number of issued shares	133,184,612
Number of shareholders	17,203

Major shareholders (Top 10)	Number of held shares (Thousands of shares)	Shareholding ratio (%)
National Federation of Agricultural Cooperative Associations (ZEN-NOH)	26,527	22.07
The Master Trust Bank of Japan, Ltd. (Trust account)	13,330	11.09
Custody Bank of Japan, Ltd. (Trust account)	7,852	6.53
The Norinchukin Bank	6,117	5.09
The Kyoei Fire and Marine Insurance Company, Limited	4,480	3.72
JA Shizuoka Keizairen	2,770	2.30
Nippon Soda Co., Ltd.	1,928	1.60
The Dai-ichi Life Insurance Company, Limited	1,660	1.38
Nippon Life Insurance Company	1,597	1.32
THE BANK OF NEW YORK 133652	1,495	1.24

Note) Treasury stock held by the Company is not included for the above major shareholders. The shareholding ratio is calculated by excluding treasury stock.