

# Integrated Report 2024

KUMIAI CHEMICAL GROUP Integrated Report 2024

I N T E G R A T E D   R E P O R T







Corporate Philosophy

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.”

Management Vision

- Aiming to be a global company that always has its eyes on the world and takes a leadership role in the world market
- Constantly creating new value to meet the needs and trust of our customers
- To form a vibrant and fast-paced group of people who constantly challenge high goals
- Always strive for harmony with all stakeholders through transparent corporate activities

New Medium-Term Business Plan (FY2024-2026)

KUMI STORY 2026

Create the Future—Expanding our Possibilities

Slogan: Dreams and Triangle for Happiness

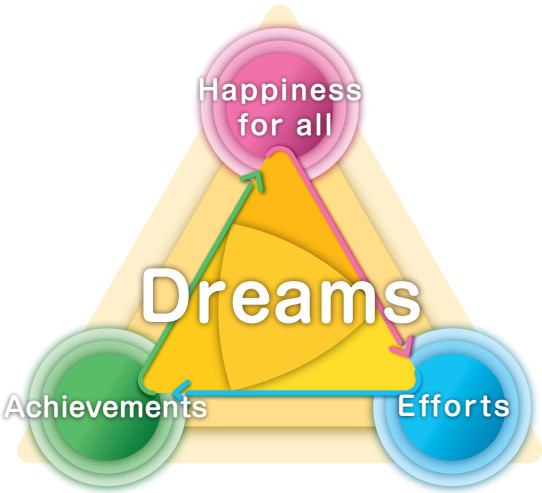










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Structure of Disclosure Information

Kumiai's official website <a href="https://www.kumiai-chem.co.jp/english/">https://www.kumiai-chem.co.jp/english/</a>	
<b>Corporate Information</b> <a href="https://www.kumiai-chem.co.jp/english/company/">https://www.kumiai-chem.co.jp/english/company/</a> — What's Kumiai — Corporate History — President's Message	
<b>Products</b> <a href="https://www.kumiai-chem.co.jp/english/products/">https://www.kumiai-chem.co.jp/english/products/</a> — Agrochemical Products — Chemical Products	
<b>Research and Development</b> <a href="https://www.kumiai-chem.co.jp/english/rd/">https://www.kumiai-chem.co.jp/english/rd/</a>	
<b>Sustainability</b> <a href="https://www.kumiai-chem.co.jp/english/sustainability/">https://www.kumiai-chem.co.jp/english/sustainability/</a> — Sustainability Management — Environment — Social — Governance	
<b>Investor Relations</b> <a href="https://ir.kumiai-chem.co.jp/en/index.html">https://ir.kumiai-chem.co.jp/en/index.html</a> — Management Policy — Financial Data	

Editing Policy

Kumiai Group publishes an Integrated Report to strengthen engagement with all stakeholders by communicating the Group's value creation from both financial and non-financial perspectives.

In the Integrated Report 2024, we report the details of the Medium-Term Business Plan "KUMI STORY 2026," launched in FY2024, which was formulated as a new stage on our path toward realization of the Ultimate Goals of Kumiai Group. The Integrated Report 2024 has special features on our main product, the field crop herbicide AXEEV®, and our new Chemical Research Institute ShIP. More detailed financial information (annual securities reports, etc.) and non-financial information (ESG data) are reported on Kumiai's official website.

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



Time of Publication

April 2024

Reporting Period

FY2023 (November 2022 to October 2023)

Scope

Published financial and non-financial information and ESG information on the Kumiai Group.

Reference Guidelines

- 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"
- International Integrated Reporting Council (IIRC) International Integrated Reporting Framework



Agricultural Chemicals and Agriculture-Related Business (Japan)

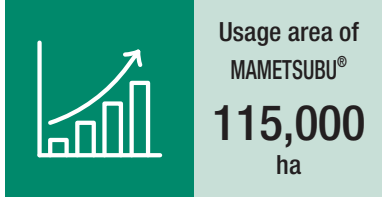
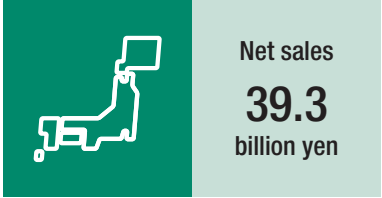
Top Japanese Market Share  
One-Shot Herbicides for Paddy Rice

Weed control is essential in paddy rice cultivation to help rice plants grow and ensure stable yields. Through many years of research and development, Kumiai has developed a number of herbicides that effectively control weeds and have minimal impact on crops, the environment, and organisms. In the field of one-shot herbicides, which have long-lasting efficacy and are highly favored by growers, we have begun marketing mixed formulations that include several proprietary active ingredients, and have held the top share of the Japanese market for three consecutive years.



Labor-Saving Formulation  
MAMETSUBU®

MAMETSUBU® is a labor-saving formulation for paddy rice that we developed independently. Whereas standard granules are 0.8 to 1.2 mm in size, MAMETSUBU® granules are 3 to 8 mm and float on the surface of water, diffusing the active ingredients throughout the paddy field. MAMETSUBU® can be applied without any need for people to enter the paddy field. As MAMETSUBU® is compatible with various application methods, it greatly contributes to labor-saving and simplified weed control, and is indispensable for sustainable agriculture. In recent years, application of MAMETSUBU® by agricultural drones and radio-controlled boats has become established, achieving further labor-saving.



Agricultural Chemicals and Agriculture-Related Business (Overseas)

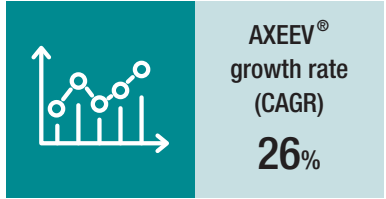
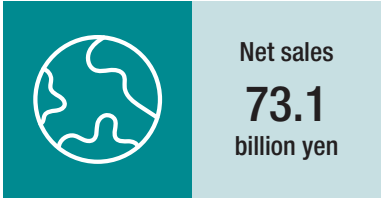
Supporting Overwhelming Growth  
AXEEV®

AXEEV® is a herbicide that can be used on major crops world-wide, such as soybean, corn, wheat, and sugarcane, and is effective on a wide range of weeds ranging from grasses to small-seeded broadleaf weeds. In recent years, the emergence and spread of herbicide resistant weeds have 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, sales have grown steadily and it has become an essential product at overseas agricultural sites. It is registered as an agricultural chemical in 23 countries (as of February 2024) and sold through partner companies worldwide.



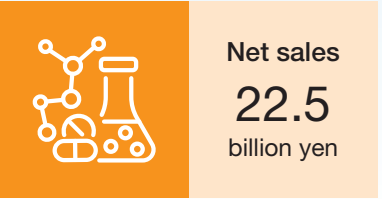
To New Markets  
EFFEEDA®

EFFEEDA® is a herbicide for paddy rice sold in Japan and South Korea. Given its efficacy and safety for crops, we are promoting development with a view to its application as a field crop herbicide, such as for wheat in Europe. We have already filed an application for agricultural chemical registration with the authorities and expect registration in 2029. Europe is the world's leading wheat producing region, with 35 million hectares under cultivation (EU). By entering this huge market, we aim to maximize the application of EFFEEDA® and contribute to global food security through the supply of Kumiai Group's products.



Fine Chemicals Business

In the Fine Chemicals Business, applying the organic synthesis technology that we have cultivated over many years, we manufacture materials in upstream industries of the value chain and are engaged in custom manufacturing of fine chemical products. The following are examples of some product use cases.

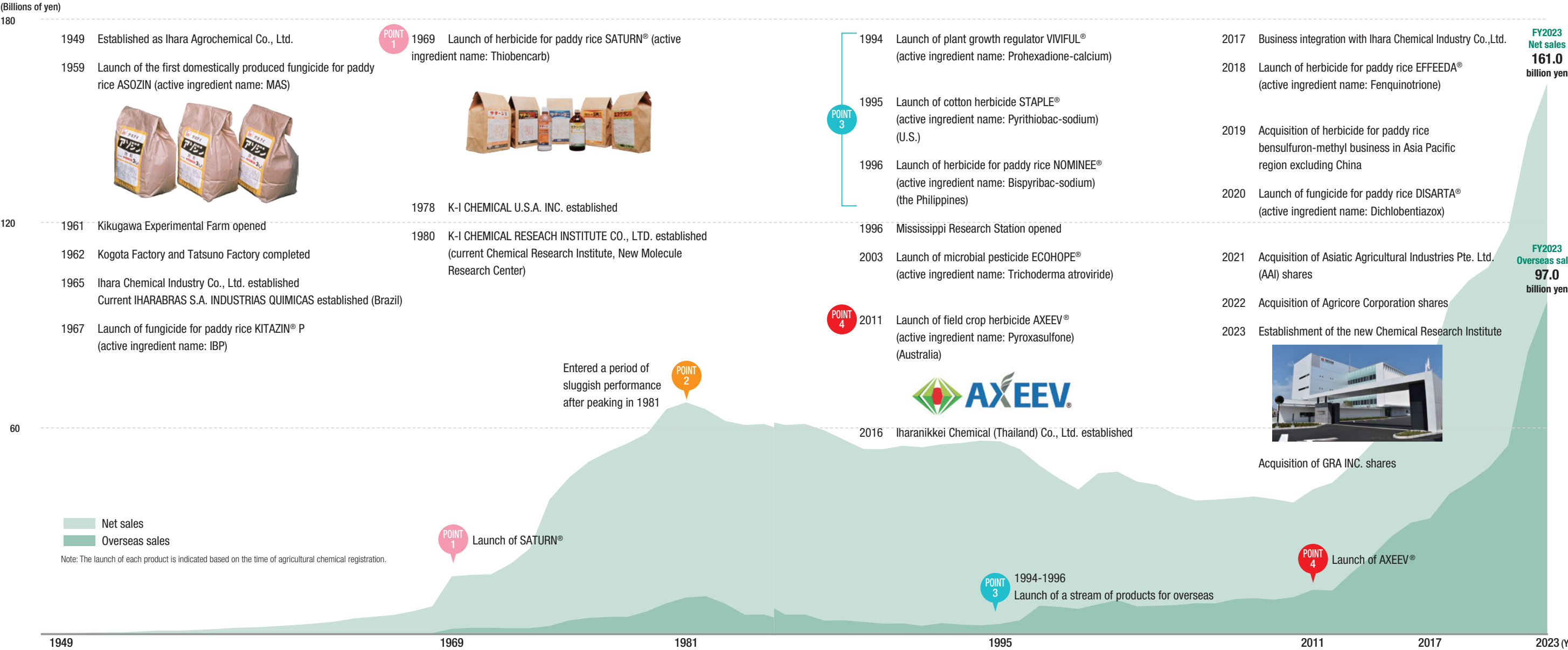
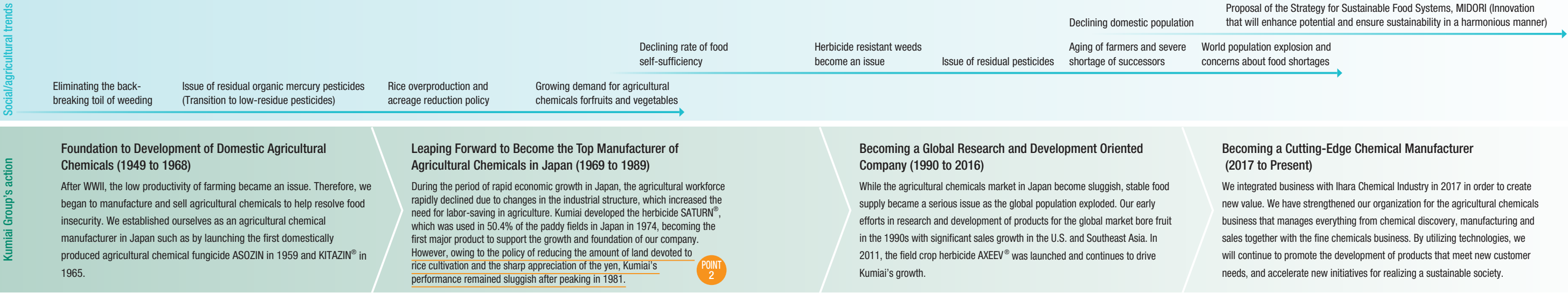


Read related articles on the Company's official website.  
[https://www.kumiai-chem.co.jp/products/chemical\\_products/familiar/](https://www.kumiai-chem.co.jp/products/chemical_products/familiar/) (in Japanese)





In the course of the more than 70 years since its foundation in 1949, KUMIAI CHEMICAL INDUSTRY (Kumiai) has pursued research, manufacturing, and sales of agricultural chemicals. 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 conservation.



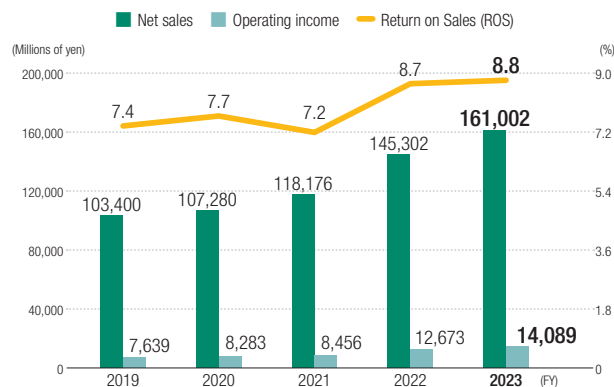


# Data Highlights

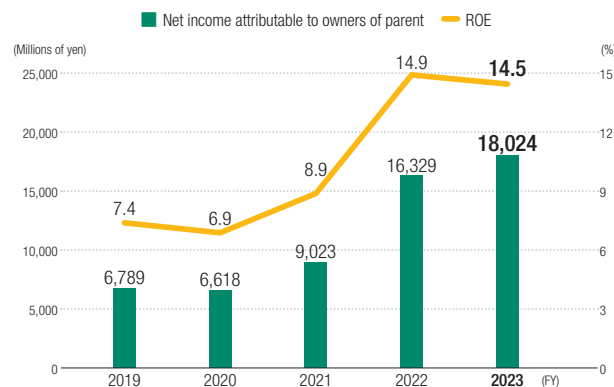
## Earnings

We achieved the net sales and operating income targets of the final year of the Medium-Term Business Plan (FY2021–2023) in the second year and recorded the highest ever earnings in the final year. We also achieved the ROE target by securing profit and steadily implementing capital policies. In FY2023, we maintained a high profit level due to depreciation of the yen and an increase in equity in earnings of affiliates, in addition to strong sales of AXEEV®.

### Net Sales / Operating Income / Return on Sales (ROS)



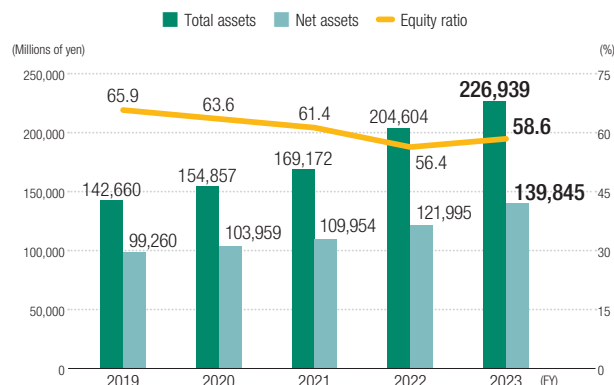
### Net Income Attributable to Owners of Parent / ROE



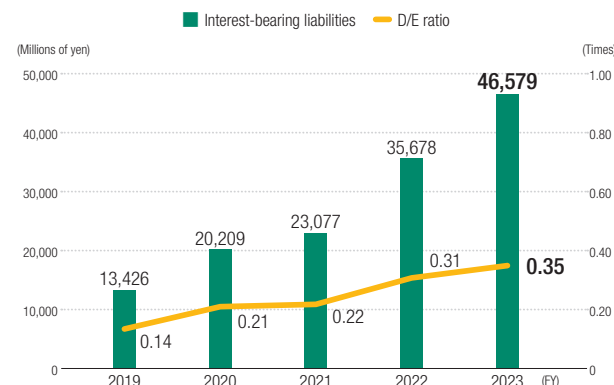
## Assets and Financing

Although interest-bearing liabilities have been increasing owing to increased demand for working capital in line with sales expansion, figures for safety-related items that indicate financial soundness, such as equity ratio and D/E ratio, remained at reasonable levels.

### Total Assets / Net Assets / Equity Ratio



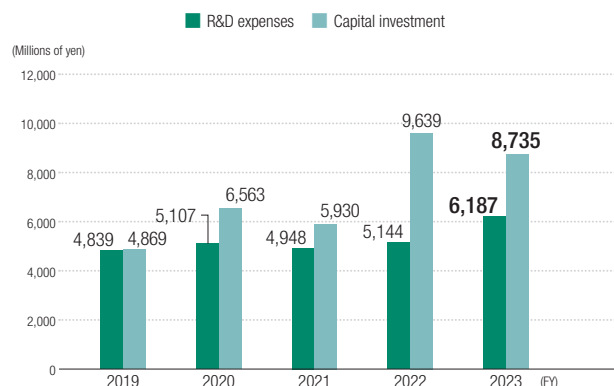
### Interest-Bearing Liabilities / D/E Ratio



## Investment

We constructed the new Chemical Research Institute (ShIP) and new plants. We are also vigorously investing in R&D to develop new products.

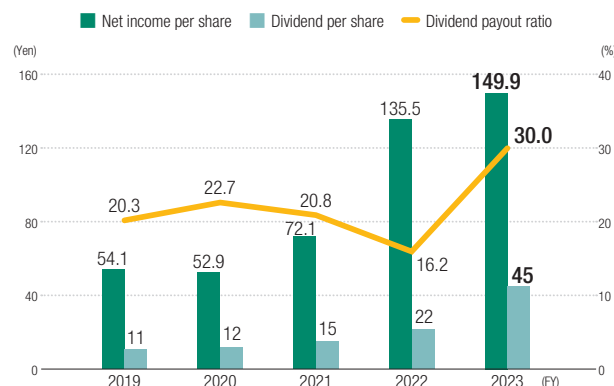
### R&D Expenses / Capital Investment



## Shareholder Returns

In FY2023, we substantially increased dividends. The new Medium-Term Business Plan (FY2024–2026) sets a goal of achieving a stable dividend payout ratio of 30% or more.

### Net Income per Share / Dividend per Share / Dividend Payout Ratio



## Introduction

## Message from the President

## Kumiai Group's Value Creation

## Strategy for Achieving Sustainable Growth

## Strengthening Foundation for Achieving Growth

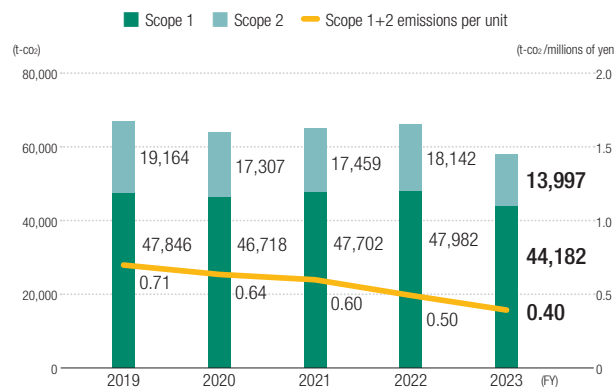
## Corporate Data

## Environmental Impact

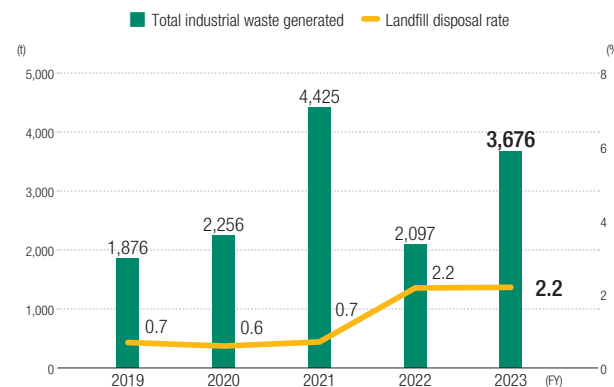
Although net sales for FY2023 were approximately 56% higher than for FY2019, greenhouse gas (GHG) emissions decreased approximately 13% compared to FY2019 levels and we believe that we are on track to achieve our target.

Note: The target is to achieve 30% reductions in Scope 1 and 2 GHG emissions from seven Group companies by FY2030 compared to FY2019.

### GHG Emissions (Scope 1+2) / GHG Emission Rate (Emissions/Sales)\*1



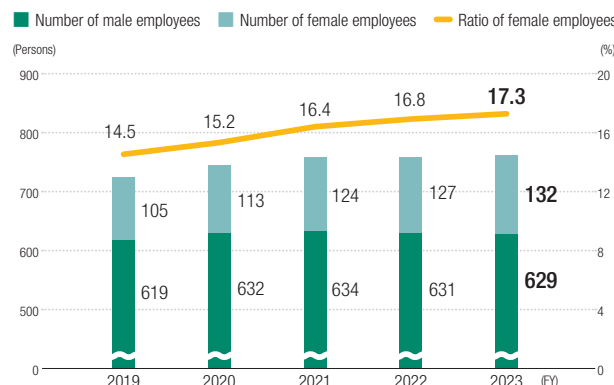
### Total Industrial Waste Generated / Landfill Disposal Rate\*2



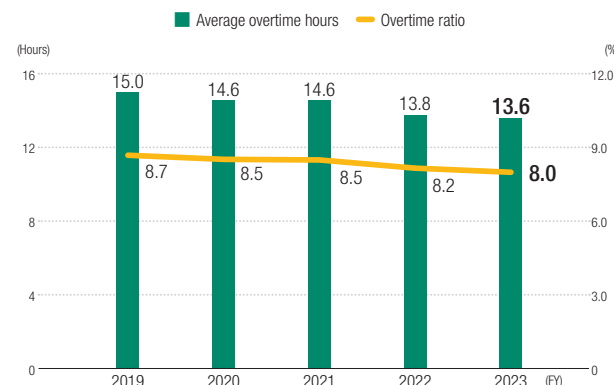
## Vision for the Human Capital Strategy

In accordance with the Kumiai Chemical Group Basic Policy on Human Capital Management, we promote diversity and inclusion and work-life balance as mentioned in the vision for the human capital strategy of the Medium-Term Business Plan.

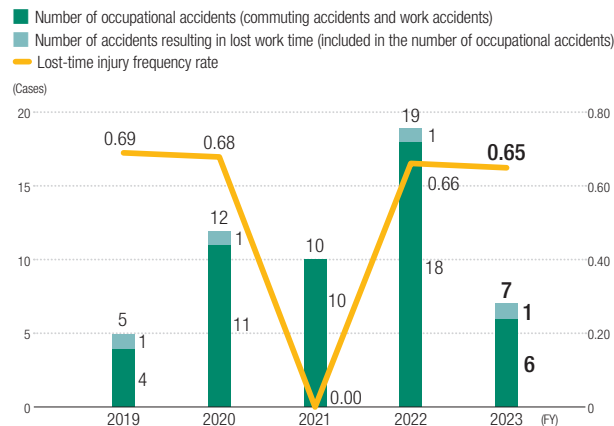
### Number of Employees (Male/Female) / Ratio of Female Employees\*2



### Average Overtime Hours (per Month) / Overtime Ratio\*2



### Number of Occupational Accidents (New) / Lost-Time Injury Frequency Rate\*3



### Childcare Leave Usage Rate (Male/Female)\*2



\*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: KUMIAI CHEMICAL INDUSTRY only

\*3: Direct employees of KUMIAI CHEMICAL INDUSTRY only



# Agricultural Chemicals and

# Herbicides Contributing to Sustainable Agriculture

## Review of the Previous Medium-Term Business Plan

### Three Years of Resounding Success Thanks to the Contribution of AXEEV®

We established the Ultimate Goals of Kumiai Group as a 100-year-old company, namely, as “a corporate group with flexibility and a strong presence that enriches the lives of people through its unique technologies, and that contributes to sustainable development of society in harmony with nature.” On that basis, we positioned the period from FY2021 to FY2023, covered by the previous Medium-Term Business Plan, as “The Challenge for New Possibilities” and worked to expand business domains and research areas as we sowed the seeds of our future growth.

The numerical targets under the Previous Medium-Term Business Plan were net sales of 126.0 billion yen and operating income of 9.8 billion yen for the final year. We achieved both these targets in the second year, recording net sales of 161.0 billion yen and operating income of 14.1 billion yen in the final year, the highest ever figures. Whereas the ROE target was 7.3%, we achieved this target throughout the three-year period as a result of steady efforts to secure profits and implementation of the capital policy. The ROE was 14.5% in FY2023.

This strong performance is largely attributable to an increase in sales of AXEEV®, Kumiai’s mainstay herbicide for upland crops, which exceeded expectations. Sales of AXEEV® increased from 29.8 billion yen in FY2020 to 73.1 billion yen in FY2023, achieving a nearly 2.5-fold increase over the three years. The depreciation of Japanese yen was also a factor contributing to the upswing in sales and profit.

AXEEV® is applicable to major crops such as soybeans, corn, wheat, sugarcane worldwide. Today, weed control using glyphosate, a herbicide effective for almost all types of weeds, is the mainstream solution worldwide for cultivation of genetically modified crops. However, an increase in herbicide resistant weeds has created an environment conducive to the use of AXEEV®, which has an excellent efficacy against such glyphosate resistant weeds. On the other hand, there was a greater-than-expected increase in demand for AXEEV® and a sharp rise in raw materials costs. Furthermore, we faced challenges such as supply chain disruptions caused by the COVID-19 pandemic and the situation in Ukraine, a rush to secure active ingredients of agricultural chemicals exceeding actual demand, and consequent increases in distribution inventories. I believe that we were able to overcome these challenges because we worked as one to respond to the growing demand for AXEEV®, making the most of Kumiai’s sales capabilities closely linked with the field, our ability to read the market, procurement and manufacturing efforts and know-how, and financing.

## Start of Operation of ShIP to Make Innovation in Development of New Products

In terms of capital investment, we implemented large-scale growth-oriented investment to strengthen R&D capabilities and reduce production costs. The three chemical research centers for chemical discovery, formulation technology, and process chemistry, which were scattered at three separate locations in Shizuoka Prefecture, were integrated into the Chemical Research Institute Shimizu Innovation Park (ShIP), equipped with cutting-edge facilities, began full-scale operation in October 2023. This is designed to enhance R&D efficiency, encourage innovation through integration of research centers in different fields, and facilitate development of new technologies to create new businesses.

Kumiai Group is an R&D-oriented enterprise. Developing new products will be essential for growth. It is important to create compounds, that as yet do not exist in our world, and commercialize them as agricultural chemicals to contribute to agriculture or as fine chemical products to enrich society.

The probability of commercializing a new agricultural chemical from newly synthesized compounds for evaluation is said to be 1 in 160,000. However, we have succeeded in developing new agricultural chemicals at an extremely high probability of 1 in 7,500.

We believe this achievement is attributable to our researchers’ cohesive teamwork in which they combine their comprehensive scientific expertise in pursuit of development, and furthermore, to the extensive purview typical of our researchers that facilitates comprehensive value judgments.

It is my earnest desire that ShIP will bring about further innovation in product development. In the biological field, we constructed a safety assessment research facility at the Life Science Research Institute in 2021 to enhance its functions. In this way, we are strengthening the research environment to meet the safety assessment standards that are becoming more stringent year by year internationally.

## Expansion of Sales Channels by Making AAI a Subsidiary

We also vigorously implemented M&A to expand business domains and research areas while fostering diversity in sales route. In February 2021, we made Asiatic Agricultural Industries Pte. Ltd. (AAI) in Singapore a consolidated subsidiary. AAI has a strong sales network in Asia and Africa for agricultural chemicals and public health pesticides. The acquisition of AAI has an important bearing on Kumiai’s future growth strategy, as it gives us access to sales channels in Asia and Africa where Kumiai’s sales activities were not so high.

As Kumiai has no direct sales channels in overseas markets, for overseas sales Kumiai concludes agreements with partners that have distribution channels in their respective countries. AAI ships formulated products manufactured at its factory to countries in Asia and Africa. Thus, we have gained a new business scheme for these countries and regions. We intend to establish a business scheme to expand new sales channels from a long-term perspective.

## M&A in Japan for Sustainable Agriculture

In Japan, we acquired an 80% share in Agricore Corporation (Fukushima Prefecture) in October 2022. Agricore has strength in products and technologies that fully utilize microorganisms and IT.

Changes in cultivation areas because of global warming and the emergence of fungi, pests, and weeds that have resistance to current agricultural chemicals are in prospect. In line with these changes in the future agricultural environment, we believe that the market for biostimulants and biopesticides will grow. Through collaboration with Agricore, we intend to advance toward the shared goals of promoting development of biostimulants and biopesticides while reducing environmental impacts in order to contribute to sustainable

agriculture.

Moreover, we acquired a 65% share in GRA INC. (Miyagi Prefecture) in September 2023. GRA is a smart agriculture venture engaged in the cultivation of strawberries. GRA has introduced a greenhouse environment control system that quantitatively manages temperature, humidity, and the amount of sunlight, for which purpose it applies ICT to quantify the experience of strawberry growers, and is encouraging new farmers by standardizing agricultural management. By leveraging GRA’s strength as an agritech company and Kumiai’s knowledge and know-how, we aim to realize synergies for smart agriculture.



Representative Director,  
President

高木 誠





New Medium-Term Business Plan

Seven Key Policies Identified through Involvement of Everyone at Kumiai

In December 2023, we announced a new Medium-Term Business Plan whose final year is FY2026.

We position the three-year period as one for germinating the seeds sown during the period of the previous Medium-Term Business Plan, for nurturing the new shoots so that they grow, and strengthening and expanding the foundation for future growth, toward realization of the Ultimate Goals as a 100-year-old company.

The vision of the new Medium-Term Business Plan is “Create the Future—Expanding our Possibilities.” Under the new Medium-Term Business Plan, we essentially intend to further expand the initiatives implemented in the previous Medium-Term Business Plan.

For FY2024, the first year under the new Medium-Term Business Plan, we forecast net sales of 167.0 billion yen (up 6.0 billion yen from FY2023) and operating income of 12.0 billion yen (down 2.1 billion yen from FY2023). This combination of an increase in net sales and a decrease in profit is forecast because operating income is expected to deteriorate in FY2024 as a consequence of adjustments in global distribution inventories of agricultural chemicals, implementation of a pricing strategy as a countermeasure for generic products, and rising costs. However, by implementing the growth strategy described below throughout the period of the new Medium-Term Business Plan, we aim to achieve numerical targets of 185.0 billion yen in net sales (up 24.0 billion yen from FY2023) and 16.0 billion yen in operating

income (up 1.9 billion yen from FY2023) in FY2026, the final year of the plan.

Under the new Medium-Term Business Plan we have four key policies as business strategies. They are “Contributing to sustainable agricultural industry / Providing a stable supply of high-quality products and services,” “Mitigation of climate change and environmental impact,” “Strengthening R&D capabilities,” and “Expanding business domains and promoting new businesses.” We have another three key policies for the foundation supporting the business strategies. They are “Human capital development / Human capital strategy based on the idea of human capital,” “Improvement of corporate governance,” and “Promotion of digital transformation / Implementation of digitalization.”

The materiality on which these seven key policies are based was revised from the previous materiality and identified through discussion at a workshop whose participants were drawn from various departments/divisions and wide-ranging age groups. In the process, employee interactions were broadened and deepened across departments/divisions, ages, and genders, among which encounters typically tend to be limited in frequency and extent, and this was also a catalyst for Kumiai’s revitalization. The seven key policies correspond to specific issues to be addressed during the three years of the Medium-Term Business Plan, which were extracted from the materiality identified in 2022.

Amount of MAMETSUBU® Treated Was Drastically Reduced to One-twelfth Compared with a Herbicide of 20 Years Ago

The first key policy, “Contributing to sustainable agricultural industry” is the engine of Kumiai Group’s growth strategy. AXEEV®, our mainstay product, is expected to continue to be our preeminent growth driver. The plan calls for AXEEV® sales of 84.2 billion yen in FY2026 (up 11.1 billion yen from FY2023).

On the other hand, the substance patent for AXEEV® expired in 2022, and generic products are expected to become available. However, by implementing thorough product life cycle management, including systems for protecting data used in registration of agricultural chemicals in certain countries, patents concerning development of mixed formulations, and patents on the manufacturing methods and intermediates obtained by devising manufacturing methods, we will step up countermeasures for generic products. We will do our utmost to ensure that the AXEEV® business continues to flourish despite the expiration of the substance patent.

Although there is a tendency to view chemical pesticides negatively from environmental and safety perspectives, it is also true that agricultural chemicals themselves contribute to sustainable agriculture. Just consider how improvement of the formulation technology for agricultural chemicals is contributing to the reduction of environmental impacts.

Take, for example, herbicides for paddy rice used in Japan. Whereas it was necessary to apply 3 kilograms of herbicide per 10 ares around 20 years ago, nowadays the amount of MAMETSUBU® herbicide is 250 grams applied for the same area, a mere one-twelfth of the previous amount is sufficiently effective. MAMETSUBU® products are also contributing to conservation of the global environment from the perspective of reducing greenhouse gas emissions in logistics. Furthermore, MAMETSUBU® products are used in smart agriculture, such as application by drones.

In Japan, the Strategy for Sustainable Food Systems, MIDORI, announced by the Ministry of Agriculture, Forestry and Fisheries in 2021 targets a 50% reduction in risk-weighted use of chemical pesticides by 2050. At first sight, this strategy may appear to presage a negative impact on Kumiai resulting in a 50% shrinkage of the market we address. However, we view the strategy as a new business opportunity, because in the 75 years since our foundation, we have continuously developed novel agricultural chemicals that bring about innovation in agriculture.

Agriculture and Agricultural Chemicals Directly Related to Food Security

Agricultural chemicals help ensure the yield and quality of crops as well as the value of shipments. They are indispensable materials for sustaining stable food production. Whereas global population and demand for food continue to grow, the risks to agricultural production posed by climate change are becoming ever more apparent. Moreover, there are geopolitical risks due to the eruption of conflicts in various regions. The need to increase the yield per unit area and produce safe and secure agricultural products is a pressing issue worldwide. There is no doubt that agricultural chemicals will contribute to resolving these issues.

As a manufacturer, Kumiai is keenly aware of the need to strengthen dissemination of accurate information. For youngsters, we have created a series of brochures explaining the role of agricultural chemicals in the food production process, and have distributed them to elementary schools in various regions in Japan. Our employees visit elementary schools in Shizuoka, Hokkaido, Miyagi, and other prefectures to give classes designed to raise the awareness of children, teachers, and other people of all ages about the role of agricultural chemicals.

An especially noteworthy project involves trial applications for suppression of weed growth, which potentially could lead to conservation of socio-ecological production landscapes (*satochi-satoyama*) and coexistence with wildlife. Kumiai has owned about 640 hectares of forest in mountainous terrain in the town of Fukushima, Hokkaido for some 50 years. We are conducting a demonstration experiment there in which a herbicide is applied for suppression of weed growth to maintain this beautiful landscape while reducing the need of weed cutting work. Moreover, in regions where there are concerns about bears, application of the herbicide for suppression of weed growth will reduce the undergrowth where bears can hide. We expect that creating a buffer zone between bear habitat and human settlement will help curb the frequency of dangerous encounters with bears. If good verification results are obtained, we can also contribute to the reduction of the anxiety and injury attributable to bears. Furthermore, this initiative is also an attempt to expand the use of agricultural chemicals in maintaining the local countryside through weed management and for implementing environmental measures.



Fine Chemicals Business Sales Target of 30.0 Billion Yen

The Fine Chemicals Business is another business field of Kumiai Group. We intend to foster the Fine Chemicals Business as a second pillar alongside the Agricultural Chemicals Business by developing business in growth areas such as semiconductors and electronic materials.

The sales target under the new Medium-Term Business Plan is 28.5 billion yen in FY2026 (actual sales of 22.5 billion yen in FY2023) and 30.0 billion yen or more under the next Medium-Term Business Plan. Although the scale of the Fine Chemicals Business is still relatively modest, the plan calls for increasing the ratio of total net sales of the Fine Chemicals Business to net sales from 14% in FY2023 to 16% or more. Proactive use of M&A and capital alliances are options in the context of our efforts to strengthen the foundation of the Fine Chemicals Business.

The Fine Chemicals Business has a wide range of applications and fine chemicals are ingredients of numerous

products supporting everyday life. For example, chloroxylene derivatives of the chlorination business are used for firefighting protective gear, and amine curing agents are used in waterproofing materials and flooring materials for Shinkansen bullet trains. In order to expand the Fine Chemicals Business, we need to increase the added value of our products and expand their applications by addressing not only upstream needs but those further downstream, advancing step by step. I believe that the combination with synthesis and formulation technologies cultivated for agricultural chemicals will lead to creation of fascinating, innovative products.

As part of our initiatives to expand the Fine Chemicals Business, we have established the New Material Research Laboratory within ShLP. Researchers of Group companies also belong to the New Material Research Laboratory and I believe this lab to become a driving force for the creation of new fine chemical materials.

Vision for the Human Capital Strategy Based on “Dreams and Triangle for Happiness”

We formulated the vision for the human capital strategy whose essence is expressed by “Dreams and Triangle for Happiness,” which is established as our slogan and a pillar of the new Medium-Term Business Plan. (See page 2.)

The slogan was adopted when I took office as president in November 2021 and is incorporated in the new Medium-Term Business Plan.

“Dreams and Triangle for Happiness” is nourished by the dreams of individual employees, however modest or personal those dreams may be. If you have a dream, it will inspire you to give of your best. If the efforts yield results, it will lead to “happiness for all.” Then, people will have next dreams, make fresh efforts, and achieve fresh results, leading to greater happiness for all. Thus, a virtuous circle will arise. In “happiness for all,” the word “all” is the key. As you expand your horizon from yourself to your family, your coworkers, the Company, the region, the country, the world, and eventually to planet Earth, behavioral ethics in pursuit of happiness for all the denizens of planet Earth will naturally emerge and take wing.

The origin of this concept is the Hawthorne experiment, which is famous in the field of industrial engineering, which I studied at university. The experiment led to the conclusion that “workers’ productivity is influenced not only by the objective working environment but also by human relationships in the workplace and the workers’ awareness of goals, and in some cases, these factors have a far greater influence.” I learned that the individual’s motivation is crucial in enhancing organizational capabilities.

When I became president of a subsidiary about 10 years ago, I had the opportunity to put this knowledge into practice. In view of the sense of stagnation in that company, I was

desperate to do something to overcome this situation. I then considered what could motivate employees. After talking with each employee and formulating the concept of “Dreams and Triangle for Happiness,” a modest experience of happiness led to the happiness of the entire company, and performance improved. Through this experience, I recognized the importance of enhancing employee motivation and of harnessing that motivation for the benefit of the company.

I am convinced that realizing the slogan “Dreams and Triangle for Happiness” will lead to a sustainable company and a sustainable society, within a framework that prioritizes the global pursuit of happiness.

This concept is also applied to Kumiai’s human capital strategy. Incidentally, the Japanese term for human capital stresses the high value inherent in people. Specifically, we are cultivating an environment that supports every effort by creating mechanisms for recruitment and training, promoting diversity, and ensuring work-life balance as well as health and productivity management. Then, we create mechanisms that encourage a sense of accomplishment in accordance with achievement by ensuring a reward that matches the level of contribution, establishing a personnel system that evaluates efforts to tackle challenges, and providing support for career development.

Finally, by enhancing the engagement of employees and the Company as a whole, we seek to realize “happiness for all.”

Currently, 1,250 ema plaques on which all our employees have written down their dreams are hung up at the entrance of my office. My dream is to make their dreams come true. Now, a little more than two years since I became president, I feel that this slogan is gradually taking root in Kumiai Group.

Message to Stakeholders

Unending Endeavor of Creating New Value

Since releasing the first product in the Japanese agricultural chemicals market in 1959, Kumiai has 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 the provision of safe and secure food for 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 as a result of the increasing global population, global environmental issues related to climate change and biodiversity, and global social issues affecting the agricultural industry are becoming more critical issues. In order to resolve these social issues, as an advanced chemical manufacturer with innovative technologies and a unique position in the market, Kumiai will endeavor to create new value.

It takes a long time, 10 to 20 years, for an agricultural

chemical to progress from chemical discovery to actual market launch. Some of the investments in R&D and M&A that Kumiai is currently making in order to expand our business domains, and also in human capital management, will bloom 10 to 20 years down the road.

In these circumstances, the fundamentals of Kumiai Group, such as R&D capabilities, sales capabilities, and the financial base, are undoubtedly strong. There are definitely markets for both agricultural chemicals and fine chemicals. Our industry will undoubtedly survive.

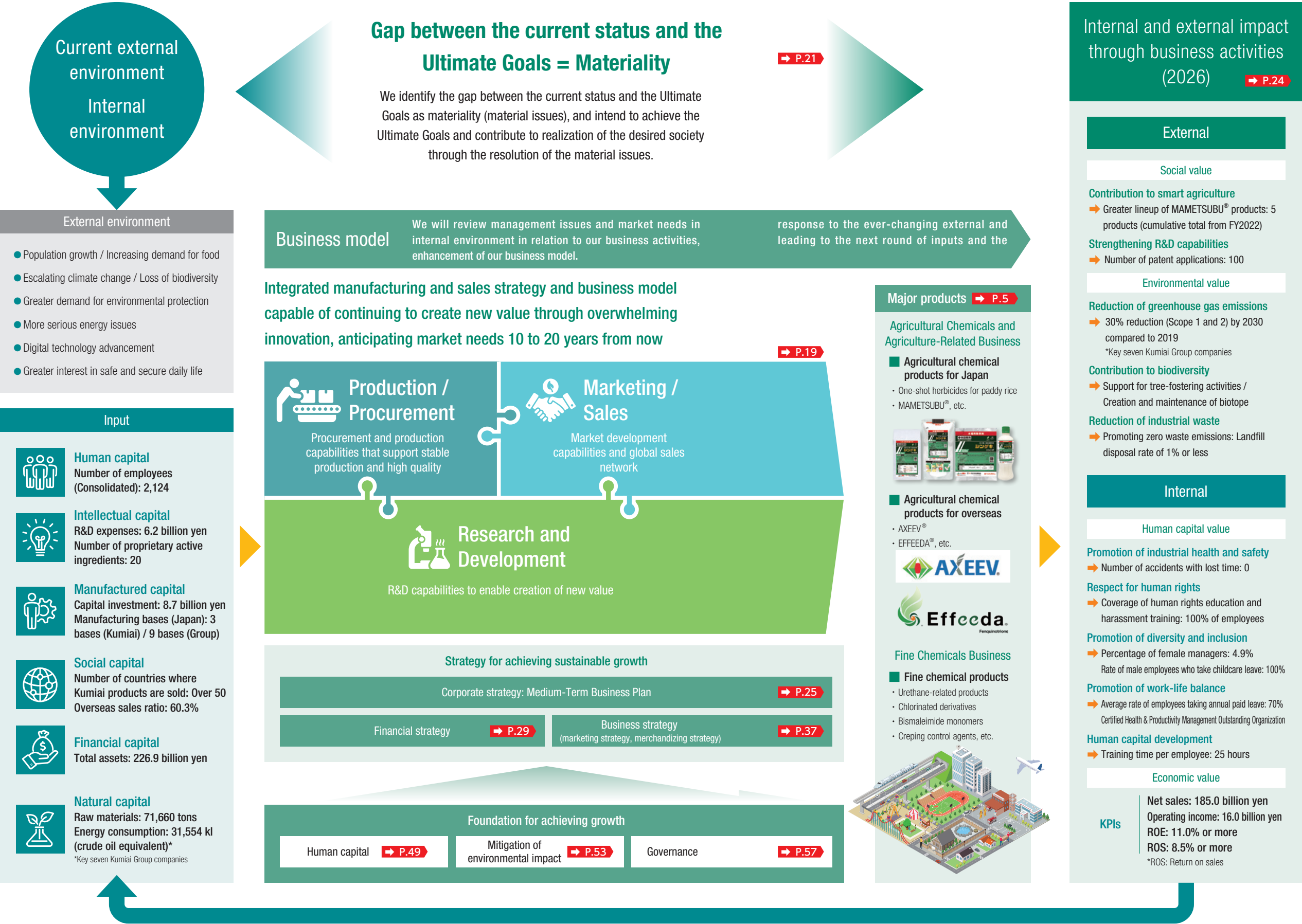
We will continue our unending endeavor of creating new value, leading to the realization of a sustainable society through the utilization of Kumiai Group’s strength, “R&D capabilities,” in order to achieve a “safe, secure, and prosperous society” along with “sustainable development of Kumiai Group.”



Corporate philosophy

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.”

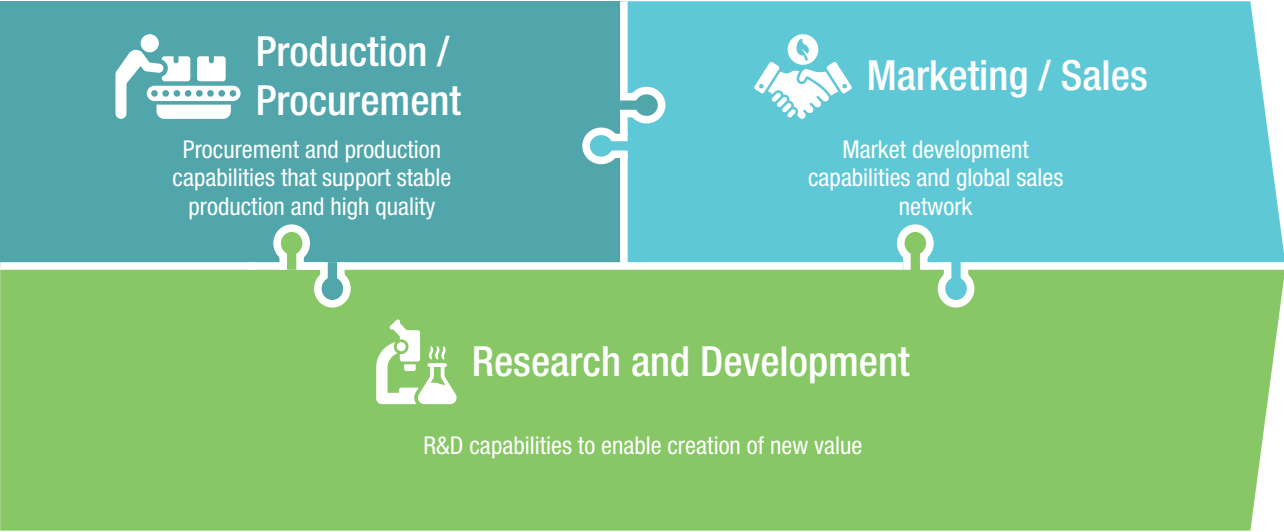


Ultimate Goals

Desired society Kumiai wants to realize



Integrated manufacturing and sales strategy and business model capable of continuing to create new value through overwhelming innovation, anticipating market needs 10 to 20 years from now



Kumiai Group is focusing on research and development of safe and effective agricultural chemicals and promoting their wider use in order to contribute to development of agriculture and support stable production of safe and secure food worldwide. This is supported by the business model incorporating integrated manufacturing and sales that enables development of new chemicals, anticipating future market needs, and stable product supply. Based on a sure grasp of growers' requirements and their circumstances, we conduct research and development in anticipation of future markets

and establish a stable production system through collaboration with factories from the development stage onward. Our partners in each country and our expert sales persons and engineers assigned across Japan promote the use of our products. Furthermore, information obtained in the field, such as new needs and changes in the agricultural environment, is fed back to R&D departments for the development of new agricultural chemicals. This business model, in which departments/divisions are organically linked, enables us to offer products that meet market needs.



Strengths in Research and Development

Our R&D system covers the entire process from exploration of new compounds to the establishment of manufacturing processes. We have know-how accumulated over many years. In addition, we invest vigorously in R&D. Above all, we have excellent researchers supporting Kumiai Group's product development.

Strength 1

Vigorous Investment in R&D

As an R&D-oriented company, Kumiai Group has continued to invest vigorously in R&D ever since its foundation. The accumulation of such investment has resulted in many products, supporting the Group's current growth. The new Chemical Research Institute ShIP began operation in 2023. Together with the Life Science Research Institute, ShIP will be a source of value creation supporting Kumiai Group's growth. Under the new Medium-Term Business Plan launched in FY2024, we plan to invest approximately 22.0 billion yen in R&D in three years. We will step up our efforts to further strengthen R&D capabilities.



Strength 2

Excellent Human Capital Creating Value

Kumiai Group's R&D is supported by human resources who possess a high level of expertise and are willing to take on new challenges. Whereas the probability of success in new agricultural chemical development is said to be typically 1 in 160,000, Kumiai Group has been able to develop new agricultural chemicals at an extremely high probability of roughly 1 in 7,500. This is achieved by excellent human resources working in an open and comfortable working environment and in a corporate culture that values free and vigorous discussion. Even amid the ongoing innovation of R&D methods and techniques through the use of IT and AI, people with fresh concepts geared to value creation, who are capable of starting from scratch and able to think outside the box, are essential.



Strengths in Production / Procurement

Stable supply and cost reductions are realized by establishing optimal manufacturing processes in collaboration with R&D departments and by achieving a stable supply chain. In addition to manufacturing of Kumiai products, we also conduct custom manufacturing, capitalizing on our long-cultivated expertise and facilities capable of handling a wide range of chemical reactions.

Strength 1

Manufacturing Technology Established in Collaboration with R&D Departments

We have established the integrated system from R&D to production and sales, which is a characteristic of Kumiai Group. By taking advantage of the system, our factories and research institutes study the optimal synthesis methods suitable for process chemistry in a collaborative endeavor from the early phase onward in the development of new agricultural chemicals. Specifically, we conduct tests at facilities that simulate actual production and examine industrial manufacturing methods. These initiatives lead to more efficient development of new agricultural chemicals and early establishment of a production system, enabling stable supply of high-quality products.

Strength 2

Global Supply Chain

Regarding procurement of raw materials, we have established a global supply chain covering Group companies in and outside Japan and our other overseas bases in order to reduce the impact of daily changes in market prices. In addition to securing alternative suppliers of raw materials, we are decentralizing production bases and strengthening our production system in readiness for global business development. Moreover, we are promoting CSR procurement in accordance with the Kumiai Chemical Group Basic Policy on CSR Procurement and CSR Procurement Guidelines.



Strengths in Marketing / Sales

We provide proprietary agricultural chemical active ingredients and products developed in house to growers through the National Federation of Agricultural Cooperative Associations (ZEN-NOH) in Japan and in cooperation with partners overseas that have strong sales networks.

Strength 1

Sales of Agricultural Chemical Active Ingredients and Products

Kumiai Group manages every phase from product development to manufacturing as well as sales within the Group. This approach not only ensures profits but also enables prompt provision of products attuned to market needs. We pursue differentiation from competitors through sales of excellent products that offer unique performance, such as the field crop herbicide AXEEV® and MAMETSUBU® products, and enhance our competitiveness in the market. Furthermore, we can reflect the feedback received from customers in improvements to existing products and development of new products, leading to provision of products offering greater satisfaction.



Strength 2

Strong Sales System

In Japan, we are engaged in community-based sales and technical service through a sales system with sales persons assigned across Japan. We provide our proprietary agricultural chemical products through ZEN-NOH, which has strong relationships with growers. Outside Japan, we have established a sales system in collaboration with subsidiaries, affiliates, and distributors that have strong sales networks in each market. Leveraging our globally competitive product capabilities and the sales network established in the course of many years of overseas business development, we supply our proprietary active ingredients around the world and are contributing to agriculture worldwide.



Kumiai Group has set “a corporate group with flexibility and a strong presence that enriches the lives of people through its unique technologies, and that contributes to sustainable development of 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 as a 100-year-old company, and have specified materiality (material issues) as initiatives that need to be taken to achieve these.

Out of the 28 items of materiality, we extracted seven that we should particularly focus on over the next three years and set them as the key policies of the new Medium-Term Business Plan.

Ultimate Goals

A corporate group with flexibility and a strong presence that enriches the lives of people through its unique technologies, and that contributes to sustainable development of society in harmony with nature

Current

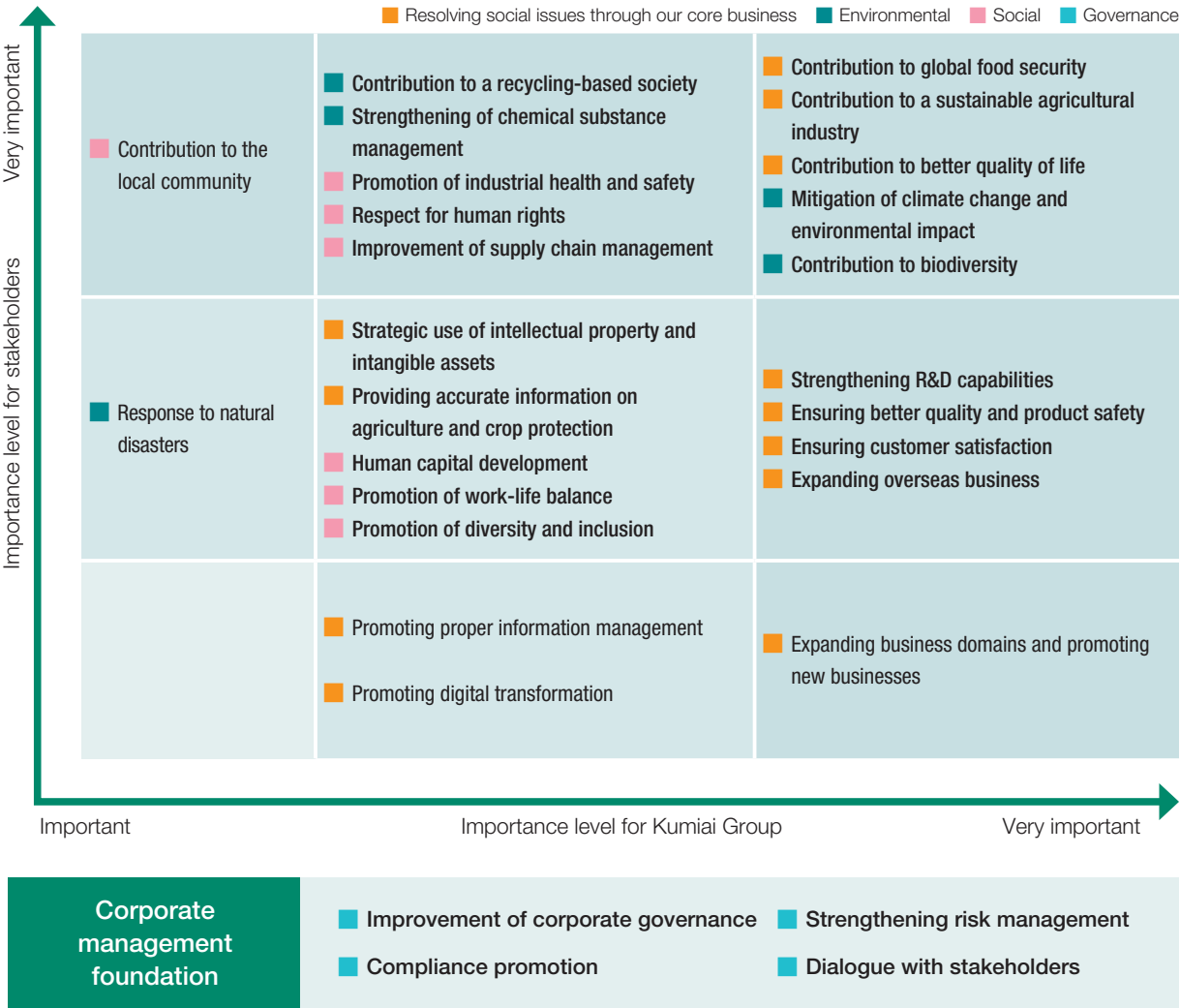
FY2026

What should be done regarding materiality

Seven key policies of the new Medium-Term Business Plan (FY2024–2026)  
Priority issues to be addressed in the next three years

1. Contributing to sustainable agricultural industry / Providing a stable supply of high-quality products and services
2. Mitigation of climate change and environmental impact
3. Strengthening R&D capabilities
4. Expanding business domains and promoting new businesses
5. Human capital development / Human capital strategy based on the idea of human capital
6. Improvement of corporate governance
7. Promotion of digital transformation / Implementation of digitalization

Materiality  
Issues to be addressed to achieve the Ultimate Goals





In order to strengthen sustainability management and address social issues, Kumiai Group thoroughly reviewed its materiality in FY2022 and established KPIs corresponding to each materiality. We are promoting initiatives while confirming results of KPIs as indicators of progress of sustainability management.

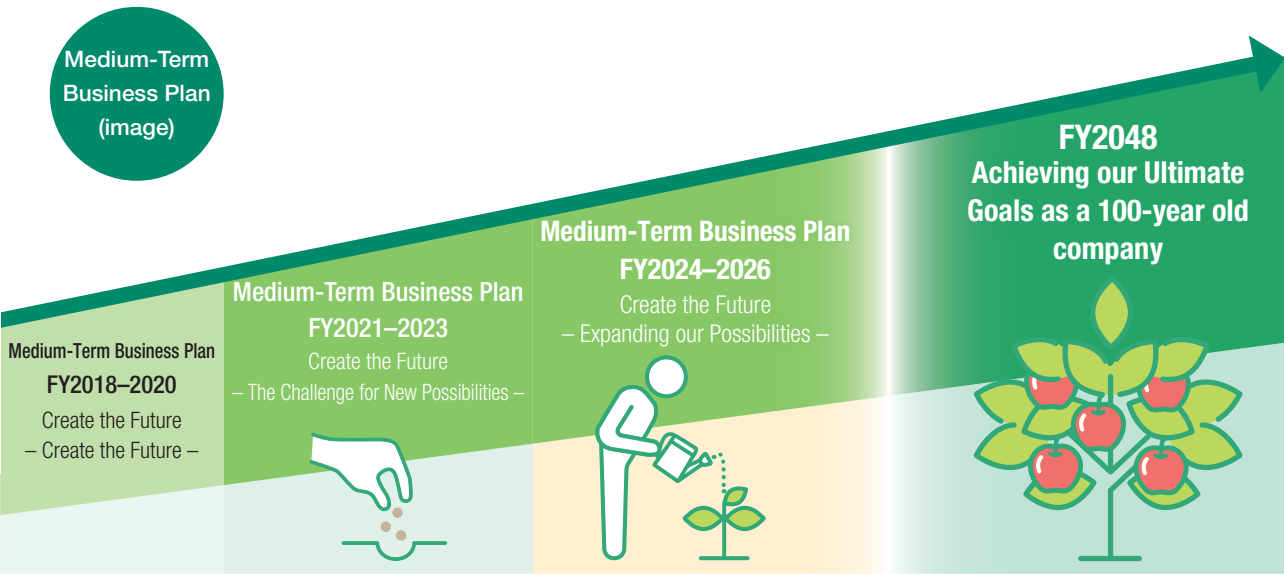
	Materiality	Initiatives	FY2023 results	FY2026 targets	FY2030 targets	Related SDGs
Resolving social issues through our core business	Contribution to a sustainable agricultural industry	● Contribution to smart agriculture through products that help reduce energy and labor	● Products that contribute to smart agriculture: Greater lineup of MAMETSUBU® products ● Number of new products launched: 1 MAMETSUBU® product ● Agricultural land area where MAMETSUBU® was used: 115,000 ha, 7.5% of land used for paddy rice cultivation in Japan	● Products that contribute to smart agriculture: Greater lineup of MAMETSUBU® products ● Number of new products launched: 5 MAMETSUBU® products (Total from FY2022) ● Agricultural land area where MAMETSUBU® is used: 1% increase in land used for paddy rice cultivation in Japan (Compared to FY2022)	● Products that contribute to smart agriculture: Greater lineup of MAMETSUBU® products ● Number of new products launched: 2 MAMETSUBU® products (Total from FY2027) ● Agricultural land area where MAMETSUBU® is used: 2% increase in land used for paddy rice cultivation in Japan (Compared to FY2022)	 
	Strengthening R&D capabilities	● Strengthening R&D capabilities	● Number of patent applications: 67	● Number of patent applications: 100	● Number of patent applications: 120	
Environmental	Mitigation of climate change and environmental impact	● Reducing greenhouse gas emissions for the whole Kumiai Group	● Greenhouse gas emissions from seven Group companies (Scope 1 and 2): 58,178 t-CO <sub>2</sub>	● Greenhouse gas emissions from seven Group companies (Scope 1 and 2): 30% reduction by FY2030 compared to FY2019	● Greenhouse gas emissions from seven Group companies (Scope 1 and 2): 30% reduction by FY2030 compared to FY2019	 
	Contribution to biodiversity	● Contributing to biodiversity through forest conservation	● Forest maintenance in Fukushima, Hokkaido	● Support for forest tree-fostering activities in Fukushima, Hokkaido: Once a year	● Forest infrastructure development in Fukushima, Hokkaido	 
		● Contribution to biodiversity		● Creation and maintenance of biotope	● Creation and maintenance of biotope	
	Contribution to a recycling-based society	● Reduction of industrial waste	● Total amount of industrial waste generated: 3,676 tons ● Amount of landfill waste: 82 tons (Landfill rate: 2.2%) ● Amount of waste recycled: 891 tons (Recycling rate: 91.6%)	● Waste reduction ● Promoting zero waste emissions: Landfill disposal rate of 1% or less	● Waste reduction ● Promoting zero waste emissions: Landfill disposal rate of 1% or less	 
Social	Promotion of industrial health and safety	● Preventing occupational accidents	● Number of accidents with lost time: 1	● Number of accidents with lost time: 0	● Number of accidents with lost time: 0	
	Respect for human rights	● Greater awareness of human rights	● Basic human rights training: Once for all employees (99.6% coverage)	● Implementation status of human rights education and training ▪ Employee coverage rate: 100% ▪ At least once a year for each employee	● Implementation status of human rights education and training ▪ Employee coverage rate: 100% ▪ At least once a year for each employee	 
		● Eliminating all forms of harassment	● Harassment training at Head Office: Once for employees at Head Office (92.0% coverage)	● Implementation status of harassment training ▪ Employee coverage rate: 100% ▪ At least once a year for each employee	● Implementation status of harassment training ▪ Employee coverage rate: 100% ▪ At least once a year for each employee	
	Promotion of diversity and inclusion	● Promoting active participation of women	● Percentage of female managers: 2.3% (3 out of 129)	● Percentage of female managers: 4.9%	● Percentage of female managers: 8.2%	
		● Promoting support for next-generation development	● Percentage of male employees who take childcare leave: 62.5% (Employees who took childcare leave: 20 / Eligible employees: 32)	● Rate of male employees who take childcare leave: 100%	● Rate of male employees who take childcare leave: 100%	
	Promotion of work-life balance	● Creating a comfortable working environment	● Average rate of employees taking annual paid leave: 60.4%	● Average rate of employees taking annual paid leave: 70%	● Average rate of employees taking annual paid leave: 80%	 
		● Achieve healthHealth and productivity management	● Certified Health & Productivity Management Outstanding Organization: Not yet certified	● Certified Health & Productivity Management Outstanding Organization: Gain certification	● Certified Health & Productivity Management Outstanding Organization: Maintain certification	
	Human capital development	● Implementing education for the continuous growth of all employees	● Training time per employee: 24.6 hours	● Training time per employee: 25 hours	● Training time per employee: 25 hours	

New Medium-Term Business Plan (FY2024–2026)

KUMI STORY 2026

Kumiai Group has formulated the Medium-Term Business Plan (KUMI STORY 2026) covering three years starting with the fiscal year ending October 31, 2024. Whereas the period covered by the previous Medium-Term Business Plan was positioned as a “sowing period for expanding our business domains and research areas,” the period covered by the new Medium-Term Business Plan is positioned as a period for germinating the seeds of technology and business sown and strengthening and expanding the foundation to advance them to the future growth stage.

Ultimate Goals as a 100-Year-Old Company and Positioning of the New Medium-Term Business Plan



Ultimate Goals as a 100-Year Old Company

A corporate group with flexibility and a strong presence that enriches the lives of people through its unique technologies, and that contributes to sustainable development of society in harmony with nature

Kumiai will celebrate its centenary in 2048. In formulating the previous Medium-Term Business Plan (FY2021–2023), we projected the market environment 20 to 30 years ahead and set the Ultimate Goals in order to be a 100-year-old company and continue further growth, that is, “a corporate group with flexibility and a strong presence that enriches the lives of people through its unique technologies, and that contributes to sustainable development of society in harmony with nature.” Having positioned the three years covered by the previous Medium-Term Business Plan as a time for sowing seeds to expand our business domains and research areas in view of the Ultimate Goals, we pursued various initiatives. As a result, not only did we achieve the management target

figures one year ahead of schedule, but we also achieved record-high net sales, operating income, and net income attributable to owners of parent in the final fiscal year (FY2023). Under the new Medium-Term Business Plan (KUMI STORY 2026) launched in FY2024, while continuing to sow new seeds, we will germinate the seeds sown to expand business domains and research areas during the previous Medium-Term Business Plan, nurture them into a more concrete form, and strengthen and expand the foundation to advance to the future growth stage. With this in mind, we have set the vision of the new Medium-Term Business Plan as “Create the Future—Expanding our Possibilities.”

New Medium-Term Business Plan Overview

Basic Policy

The basic management policy is to “build a management foundation that can respond to changes in the business environment by developing innovative technologies and exploring new business domains, and to be a corporate group capable of contributing to realization of a sustainable society by providing

products and services that enrich the lives of people.” We aim to achieve the goals of the Medium-Term Business Plan by steadily implementing key policies and measures in accordance with the basic management policy.

Capital Policy

In order to achieve sustainable enhancement of corporate value, we must continue investing in business growth. Kumiai Group’s capital allocation, which indicates the breakdown of the use of financial resources, is disclosed in the Medium-Term Business Plan for the first time. We will appropriately allocate funds totaling 90.0 billion yen to dividend payment, repayment of borrowings, and growth investment to further enhance corporate value.

	FY2023 results	FY2026 targets
Net sales	161.0 billion yen	185.0 billion yen
Operating income	14.1 billion yen	16.0 billion yen
Net income	18.0 billion yen	15.0 billion yen
ROE	14.5%	11.0% or more
ROS	8.8%	8.5% or more

Note: medium- to long-term target: 10% or more

Numerical Targets

The numerical targets for the final year of the Medium-Term Business Plan are net sales of 185.0 billion yen, operating income of 16.0 billion yen, and net income of 15.0 billion yen. We target return on equity (ROE) of 11.0% or more and return on sales (ROS) of 8.5% or more to further strengthen profitability. Regarding the dividend policy, the target is to maintain a dividend payout ratio of 30% or more.

	FY2021–2023 results	FY2024–2026 targets
Capital investment	24.3 billion yen	27.6 billion yen
R&D expenses	16.3 billion yen	22.0 billion yen

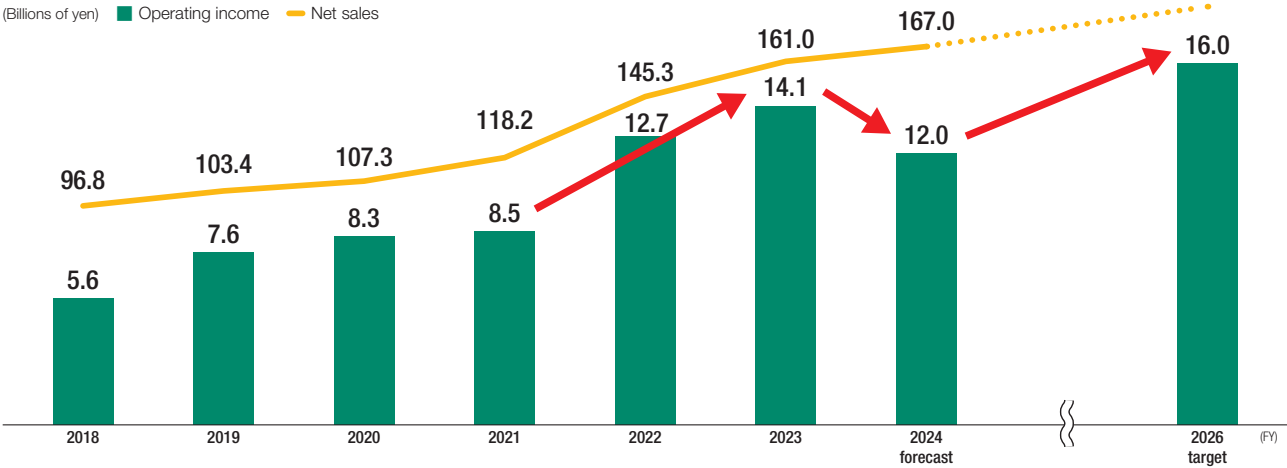
	FY2024–2026 targets
Dividend policy	<b>Dividend payout ratio: 30% or more</b> The basic policy is to continue to pay stable dividends based on a comprehensive assessment of shareholder returns, taking into account earnings trends, and internal reserves to strengthen the corporate structure and prepare for future business development.

Outlook for FY2024–2026

During the period covered by the previous Medium-Term Business Plan (FY2021–2023), net sales and operating income increased significantly driven by high growth of AXEEV®, Kumiai Group’s mainstay product. However, operating income is expected to decrease in FY2024, the first year of the new Medium-Term Business Plan. This is due mainly to adjustments in global distribution inventories of agricultural chemicals, implementation of pricing strategies for AXEEV® to compete with generic products, and increased costs. Nevertheless, inventory adjustments will be

completed in FY2025, and further growth of AXEEV® can be expected by promoting the product for regions and crops that have good potential in this regard and implementing appropriate countermeasures for generic products. We aim to achieve record-high net sales and operating income in FY2026, the final year of the new Medium-Term Business Plan, through implementation of various measures, including expansion of sales of EFEEEDA® and DISARTA®, which are proprietary active ingredients, and expansion of business domains of the Fine Chemicals Business.

Net Sales and Operating Income





New Medium-Term Business Plan Key Policies, Action Plan, and KPIs

From among the items of materiality identified as material issues to be addressed in order to realize the Ultimate Goals, we have extracted seven issues to be specifically addressed during the three years of the Medium-Term Business Plan and set them as key policies. Based on these policies, we have listed priority measures and initiatives.



Contributing to Sustainable Agricultural Industry / Providing a Stable Supply of High-quality Products and Services

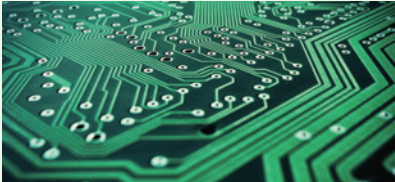
In order to maximize the business for AXEEV®, which has been driving Kumiai Group's progress, we will implement countermeasures for generic products to the maximum extent and promote sales of AXEEV® in regions with potential for sales expansion. Moreover, we aim to further expand sales of EFFEEDA® and DISARTA®, which are proprietary active ingredients, in Japan and overseas. We will also work to expand the land area where MAMETSUBU® products, which are labor-saving formulations, are applied to help save farm labor and reduce the environmental impact. Furthermore, in order to position the Fine Chemicals Business as the second pillar alongside the Agricultural Chemicals and Agriculture-Related Business, we intend to expand existing businesses while taking on the challenge of custom manufacturing in cutting-edge fields.

AXEEV® sales target  
(FY2026)  
**84.2** billion yen

Agricultural land area where  
MAMETSUBU® is used  
(FY2026)

**1** % increase in land for paddy rice  
cultivation (Compared to FY2022)

Materiality  
KPI



Mitigation of Climate Change and Environmental Impact

Considering the nature of Kumiai Group's Agricultural Chemicals and Agriculture-Related Business, we recognize that mitigation of climate change and environmental impact as well as conservation of biodiversity are highly relevant and important management issues. To address mitigation of climate change and environmental impact, we have established KPIs for greenhouse gas (GHG) emissions reduction and waste reduction and are working to achieve them. Moreover, leveraging Kumiai Group's technologies and knowledge, we will contribute to protection of the global environment, including through the conservation of biodiversity and by contributing to realization of a recycling-based society.

GHG emissions reduction target  
(FY2030)  
**30** % reduction compared  
to FY2019

Materiality  
KPI

Zero waste emissions  
(FY2026)

Landfill  
disposal rate of **1** % or less

Materiality  
KPI



Strengthening R&D Capabilities

To further accelerate initiatives to develop new agricultural chemicals, we will promote establishment of screening and efficient chemical discovery, formulation, and biological evaluation methods using IT and AI technologies. We will also promote development of materials and technologies that meet new social needs, such as microbial pesticides and biostimulants, and development of GHG gas control technologies and new materials, to create new value.

Development of new agricultural  
chemicals  
(new active ingredients)  
**1** active ingredient in **3** years

Number of patent applications  
(FY2026)

**100**

Materiality  
KPI



Expanding Business Domains and Promoting New Businesses

Centering on Kumiai Group's key business categories, that is, agriculture, agricultural chemicals, and fine chemicals, we will vigorously consider M&A in order to expand into new businesses in areas peripheral to existing businesses. Moreover, through collaboration by leveraging overseas sales channels and manufacturing technology of AAI, which became a subsidiary during the period covered by the previous Medium-Term Business Plan, Agricore's and GRA's technologies for smart agriculture, and the knowledge and know-how cultivated by Kumiai Group, we will maximize various synergies and strengthen the profitability of our businesses.



Human Capital Development / Human Capital Strategy Based on the Idea of Human Capital

Kumiai Group considers human capital to be the critically important factor and essential for sustainable growth of the company. Under the Medium-Term Business Plan, we have established a vision for the human capital strategy in line with the slogans "Dreams and Triangle for Happiness". We have also formulated an action plan and set KPIs for each item, such as diversity and inclusion, work-life balance, and the personnel system to promote initiatives for realizing the vision.

Certified Health & Productivity  
Management Outstanding Organization  
(FY2026)

**Gain certification**

Materiality  
KPI

Rate of male employees who  
take childcare leave  
(FY2026)

**100** %

Materiality  
KPI

Training time per employee  
(FY2026)

**25** hours

Materiality  
KPI



Improvement of Corporate Governance

We will continue our initiatives to strengthen corporate governance by developing and establishing systems in accordance with the Basic Policy on Compliance and the Basic Policy on Risk Management. We will also promote initiatives related to respect for human rights through human rights due diligence and participation in the United Nations Global Compact.

Establishment of the  
risk management  
system

WE SUPPORT



Promotion of Digital Transformation / Implementation of Digitalization

By promoting digitalization, we will enhance operational efficiency and productivity in response to dynamic change in the business environment. In addition to the introduction of a new human resources and payroll system, we will promote the use of generative AI, investigate chemical discovery methods using AI and other digital technologies, digitalize chemical substance management, etc., and automate factory facilities.

Implementation of  
digitalization

Investigation of  
chemical discovery  
methods using AI, etc.





Making strategic investments to enhance corporate value, in addition to capital investment and R&D investment, while ensuring corporate’s financial health

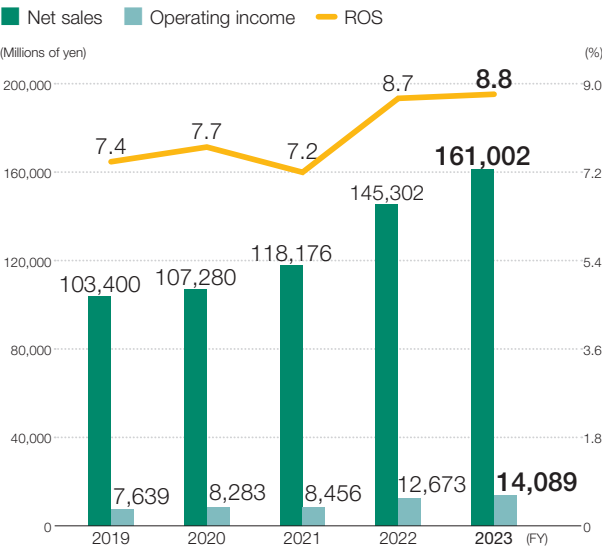
Director, Managing Executive Officer,  
Head of Corporate Planning & Coordination Division  
YOKOYAMA Masaru

Review of the Previous Medium-Term Business Plan

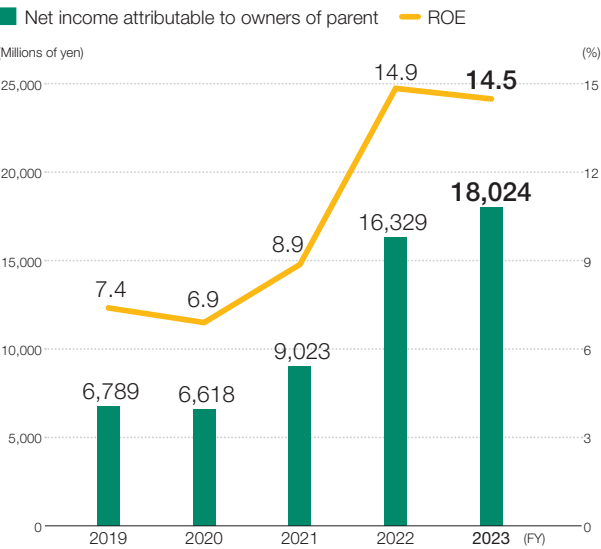
Under the previous Medium-Term Business Plan, the segment of Agricultural Chemicals and Agriculture-Related Business achieved significant growth due to increased sales of such products as field crop herbicide AXEEV® for overseas markets, and paddy rice herbicide EFFEEDA® for the Japanese market and paddy rice fungicide DISARTA® for the Japanese market. In particular, AXEEV®, which has gained widespread acceptance in the market due to its excellent performance and benefited from increased demand in line with the spread of herbicide resistant weeds, contributed significantly to Kumiai’s

business performance. This offset the decline in demand for the core products of the Fine Chemicals Business, which was due to the impact of inventory adjustments in the semiconductor market, and we had achieved the record-high sales and profits in the final year of the Medium-Term Business Plan with consolidated net sales of 161.0 billion yen and operating income of 14.1 billion yen. The return on equity (ROE), a key management indicator along with net sales and operating income under the Medium-Term Business Plan, was 14.5%, significantly exceeding the target of 7.3%.

Net Sales / Operating Income / Return on Sales (ROS)



Net Income Attributable to Owners of Parent / ROE



We also vigorously promoted R&D investment and capital investment. We invested approximately 10.0 billion yen in construction of the Chemical Research Institute Shimizu Innovation Park (SHIP) in Shimizu-ku, Shizuoka City, where Kumiai was founded. SHIP began its operation in October 2023.



Chemical Research Institute Shimizu Innovation Park (SHIP)

Additionally, we made AAI a consolidated subsidiary. AAI is a Singapore-based company that sells agrochemicals and other products in Asia and Africa. We also vigorously pursued initiatives to expand our business domains, including through promotion of M&A. We acquired equity shares in two agritech companies in Japan (Agricore, which is mainly engaged in



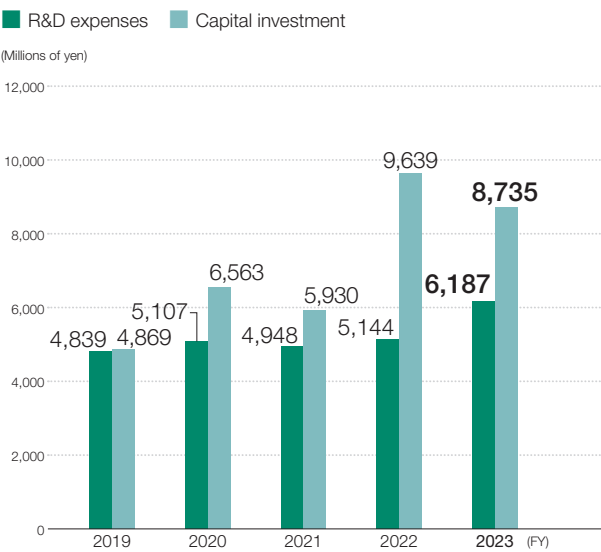
GRA INC.

production of wasabi using IT technology, and GRA, a smart agriculture enterprise that cultivates strawberries).

Furthermore, having started full-scale initiatives for sustainability management, we took steps to strengthen our foundation, such as by formulating the Basic Policy on Sustainability and setting KPIs for materiality. From the above, I believe that each measure set out in the previous Medium-Term Business Plan had been successfully accomplished.

On the other hand, although Kumiai’s performance has been stable, the price-to-book ratio (PBR) has been sluggish, which I believe is partly due to the relatively low price-to-earnings ratio (PER), which indicates expectations for future growth. Considering the importance of ensuring that investors fully understand the business environment of Kumiai Group and the future growth scenario linked to our potential, we decided to incorporate these points into the new Medium-Term Business Plan. Also, for the first time, Kumiai Group disclosed its capital allocation in line with the establishment of management performance targets.

R&D Expenses / Capital Investment



Capital Allocation

In order to achieve sustainable enhancement of corporate value, we recognize the necessity to continue investing in growth, and in the new Medium-Term Business Plan we have disclosed capital allocation, outlining the usage of funds. Under the new Medium-Term Business Plan, the source of funds will be approximately 90.0 billion yen over the three-year period from FY2024 to FY2026, consisting of approx. 60.0 billion yen in operating cash flow and approx. 30.0 billion yen in borrowings from financial institutions. Of these funds, we will allocate approx. 12.0 billion yen to dividend payments, approx. 15.0 billion yen to repayments of borrowings, and approx. 63.0 billion yen to growth investments. The growth investments are for realizing the future growth of Kumiai Group, and is

composed of approx. 28.0 billion yen for capital investments, approx. 22.0 billion yen for R&D expenses, and approx. 13.0 billion yen for strategic investments, such as M&A.

The new Chemical Research Institute SHIP was constructed and began its operation during the period covered by the previous Medium-Term Business Plan. As well as continuing to execute capital investments related to R&D, we will vigorously execute capital investments to reduce production costs and boost production capacity at our factories. Plans call for construction of a new research building for the Life Science Research Institute, a liquid formulation plant at Kogota Factory, and a multipurpose fine chemicals plant of K-I CHEMICAL INDUSTRY CO., LTD.



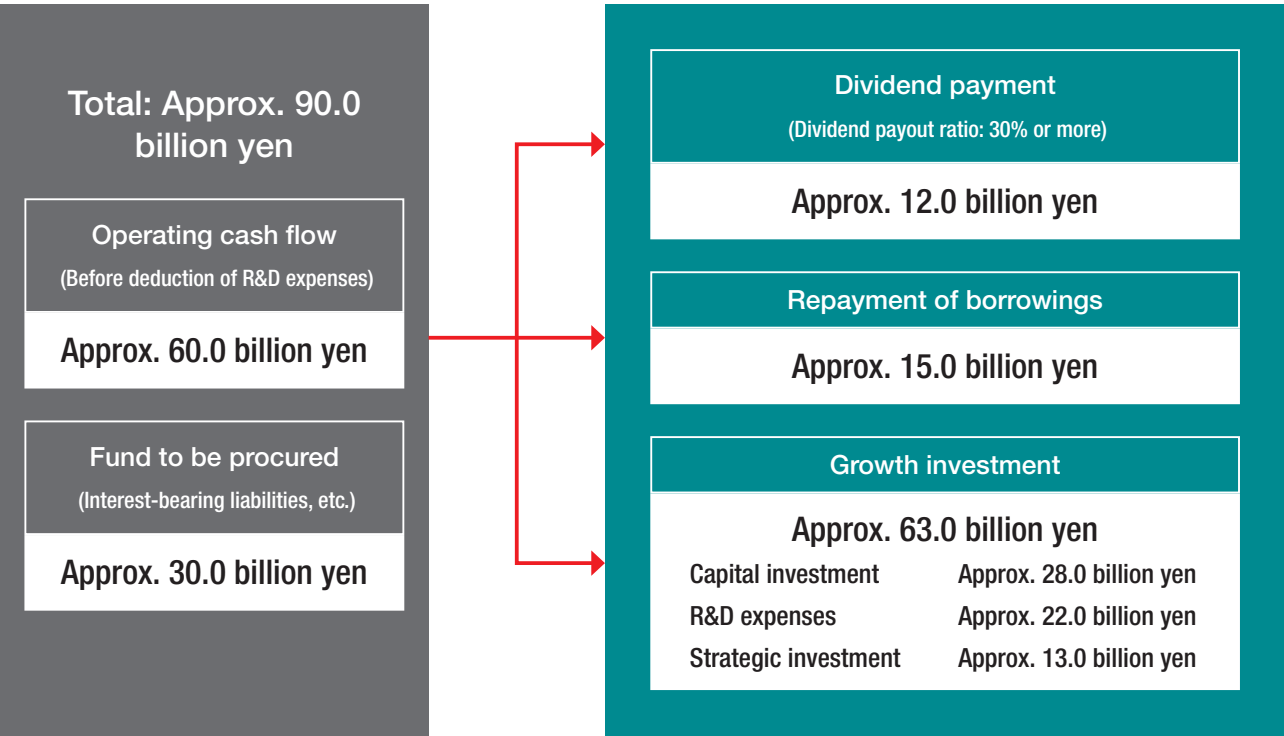
Regarding production facilities, our aim is to enhance cost competitiveness and improve productivity, as well as to reduce greenhouse gas (GHG) emissions by adopting environmentally-friendly specifications.

Since Kumiai Group is a R&D-oriented company, continuous investments in R&D are essential for future growth. In the Agricultural Chemicals Business, which is our core business, development of a new compound that will become an active ingredient of new agricultural chemicals (end user products) generally requires a significant period of time, more than 10 years, and huge investments of over 30.0 billion yen. Under the new Medium-Term Business Plan, while promoting effective and efficient investment corresponding to

development plans for new agricultural chemicals and fine chemicals in the new product pipeline, we will proactively invest in the development of new products that will support Kumiai's business 10 to 20 years from now.

To increase Kumiai Group's corporate value, it is necessary to continue investing in growth. Based on the premise of balancing a business strategy that meets market expectations with a strategy of maintaining and improving the corporate's financial health that supports the business strategy, I believe it is important to optimize the balance between growth investment, including investment in human capital, and strengthening shareholder returns.

Capital Allocation Assumptions under the New Medium-Term Business Plan (FY2024–2026)



Targets

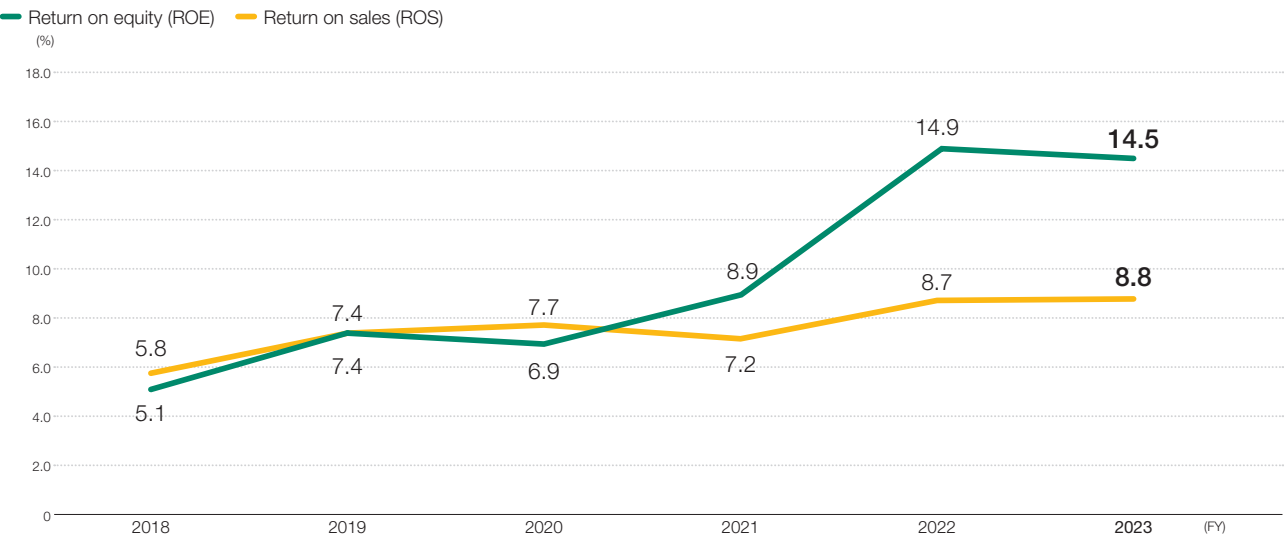
For continued sustainable growth and enhancement of corporate value, Kumiai Group has set return on equity (ROE) and return on sales (ROS) as key management indicators in addition to net sales and operating income. The targets for the final year of the new Medium-Term Business Plan are net sales of 185.0 billion yen, operating income of 16.0 billion yen, ROE of 11.0% or more, and ROS of 8.5% or more.

We recognize ROE as a key management indicator that indicates the efficiency of the use of shareholders' equity and is important as we aim to further strengthen profitability. By striving to achieve the ROE target, we will allocate the limited management resources efficiently and continue to produce

products that are essential in profitable business fields.

In order to achieve the ROE target we set as a key management indicator, we set ROS as a key financial performance indicator because we focus on profitability among ROE's three components. ROS directly indicates profitability of the company's operating activities. The ROS target under the new Medium-Term Business Plan is 8.5% or more, with a midium- to long-term target of 10% or more. I think placing emphasis on ROS as a core indicator of the profitability of operating activities will facilitate achievement of the ROE target.

ROE and ROS



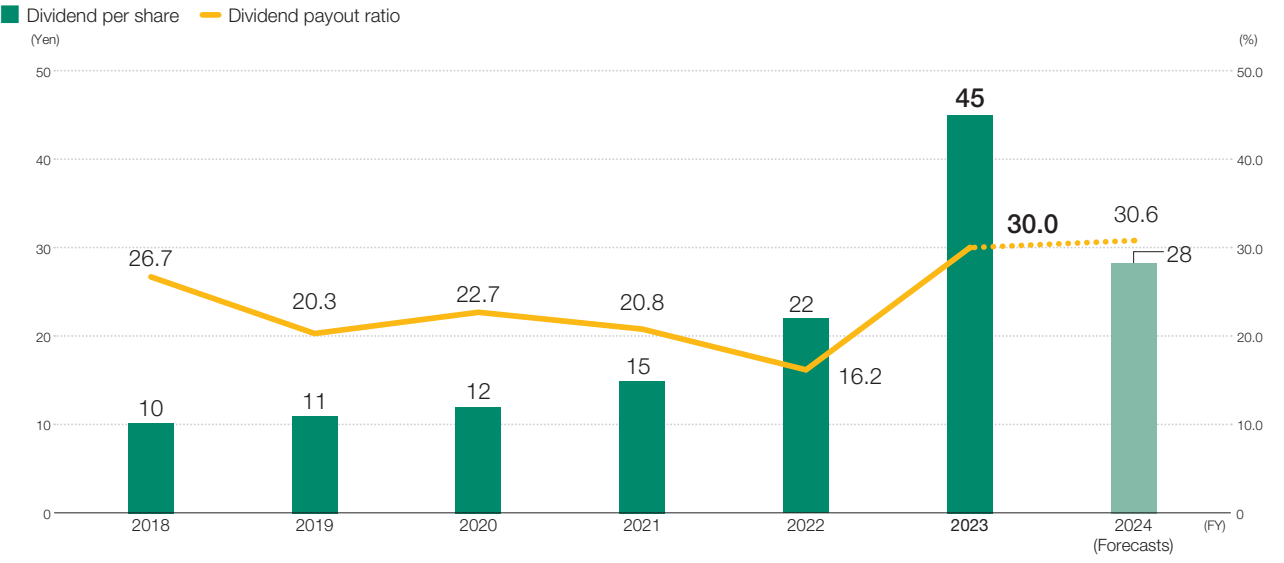
We recognize shareholder return as one of our most important management responsibilities. Previously, Kumiai Group did not indicate quantitative targets such as the target dividend payout ratio. The actual dividend payout ratio has been around 20%. However, from the viewpoint of taking a more shareholder-oriented approach, we have comprehensively considered the balance between investment for future growth and the shareholder return, and have decided to set a target of achieving a stable dividend payout ratio of 30% or more under the new Medium-Term Business Plan. We also have clearly disclosed this target to all stakeholders. Going forward, we will practice management, taking into account capital costs and the share price, to achieve sustainable enhancement of corporate value so as to meet the expectations of our stakeholders.

Although we do not disclose the target figure, the D/E ratio, which indicates corporate's financial health, was 0.35 times in FY2023 and remained at a reasonable level. The D/E ratio has

been increasing in recent years. The upward trend is attributable to an increase in borrowings resulting from increased demand for working capital in line with the rapid growth of the AXEEV® business.

Moreover, we are proactively engaged in IR activities, such as holding quarterly financial results briefings and small meetings, to ensure that stakeholders have a deeper and more accurate understanding of Kumiai Group. The number of IR interviews conducted increased approximately 1.8 times from 58 in 2021 to 105 in 2023. In the course of dialogue, shareholders and investors pointed out the lack of information regarding our future growth strategy and the low dividend payout ratio. In response to their comments, in the new Medium-Term Business Plan we have included more in-depth information on growth strategies for each business than ever before and a higher target dividend payout ratio. We will continue to strive for sustainable enhancement of corporate and social value through dialogue with our stakeholders.

Dividends and Dividend Payout Ratio



## Special Feature 1

## Contributing to Resolve Social Issues

# Herbicide AXEEV®



AXEEV<sup>®</sup>, an innovative field crop herbicide developed in-house that has a low impact on the environment, is Kumiai's mainstay product and the driver of the Group's growth. The product is registered as an agricultural chemical in 23 countries and is recognized as a trump card with long-term efficacy at low dosage for dealing with difficult-to-control herbicide resistant weeds that have recently become a serious problem in the cultivation of soybean, corn, wheat, sugarcane, and other crops. AXEEV<sup>®</sup> is used as an active ingredient in many products and is supporting agriculture in the field and contributing to food production around the world.

## Social Issues Resolved by AXEEV®

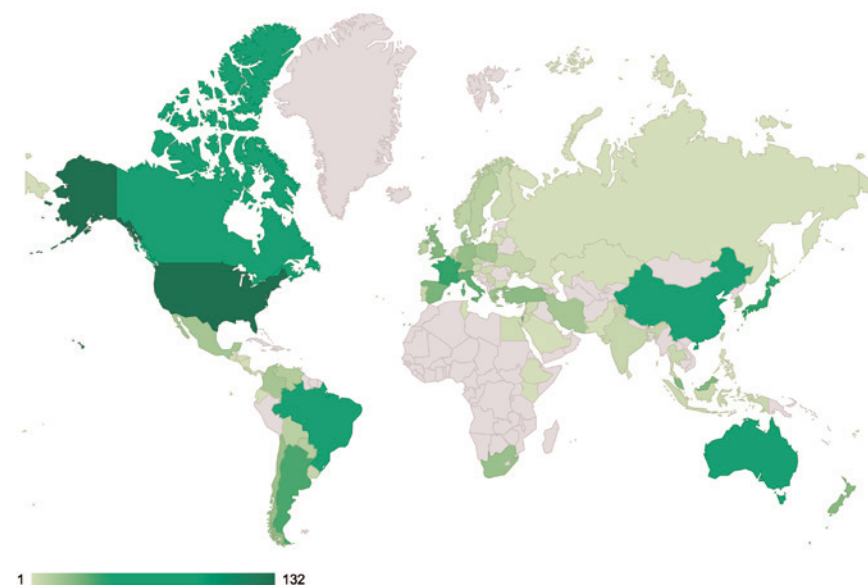
The need to increase food production to feed the world's burgeoning population, which is expected to reach 9.7 billion by 2050, is a pressing issue. In order to increase food production without relying on the expansion of cropland through deforestation, which leads to environmental destruction, it is important to increase productivity through the proper use of safe and secure agricultural chemicals.

The cultivation system introduced in the 1990s as an innovative agricultural technology, combining the use of the herbicide glyphosate and genetically modified crops (GMO<sup>\*1</sup>), has spread widely due to its usability. Currently, this system accounts for more than 90% of the soybean and corn

production in the Americas. However, weed species resistant to glyphosate (herbicide resistant weeds\*<sup>2</sup>) have emerged and are spreading worldwide, becoming a major problem in agriculture.

Among the first to foresee the emergence of these herbicide resistant weeds, Kumiai applied itself to the task of developing a soil-applied herbicide that would solve this problem. AXEEV®, which we discovered and developed, is widely accepted in the market as a means of resolving this problem. Though more than 10 years have passed since the product was first launched, the number of countries where AXEEV® 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. With the number of reports reaching 132 in the U.S., it is becoming a serious problem.

Source: International Herbicide-Resistant Weed Database (As of January 2024)

\*1 Genetically Modified Organism (GMO): 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.

## Strengths of AXEEV<sup>®</sup> and Problems Solved

Weeds resistant to glyphosate are a major problem in soybean and corn cultivation in the U.S., Canada, Brazil, and Argentina. In particular, in the case of amaranths (*Amaranthus* spp.) , a single plant produces tens of thousands of seeds, and resistance traits are transmitted through pollen as well, and so resistant weeds spread rapidly. Because they grow to a height of one to two meters, they can seriously damage not only crop yields but also the quality of the grain due to weed seed contamination.

In Australia, a major wheat grower, Italian ryegrass (*Lolium multiflorum*), which is resistant to the herbicide used, is widespread. Regarding wheat cultivation in India, areas where the herbicide resistant lesser canary grass (*Phalaris minor*) is prevalent are increasing. These are only examples. Indeed, herbicide resistant weeds are spreading throughout the world and have become a major problem in agriculture.

In view of its efficacy in controlling these herbicide resistant weeds, AXEEV® is a game changer offering a solution to this

agricultural problem. AXEEV® requires a dosage approximately only one-tenth that of conventional herbicides. In addition to its low environmental impacts, its herbicidal effect lasts approximately two weeks longer than that of conventional products. As a result, the frequency of application can be reduced, alleviating the agricultural workload. The increased productivity on limited farmland brought about by AXEEV® helps reduce deforestation associated with the expansion of farmland, and is thus beneficial in terms of conservation of the global environment. Moreover, the volume of AXEEV® products delivered to growers around the world is approximately one-tenth the volume of conventional products that would otherwise be shipped, which is advantageous in terms of lower CO<sub>2</sub> emissions during transportation of AXEEV® products from factories to growers. Furthermore, less frequent applications of herbicide contribute to a reduction of CO<sub>2</sub> emissions associated with the application of herbicide.

## Outcome

Since its launch in Australia as a soil-applied herbicide for wheat in 2011, the number of countries where AXEEV® is marketed has increased and sales of AXEEV® have increased during the subsequent 13 years. Sales of AXEEV® were 35.5 billion yen in FY2021, 54.4 billion yen in FY2022, and 73.1 billion yen in FY2023. During the last 11 years, from 2013 to 2023, sales of AXEEV® have continued to grow at a compound annual growth rate (CAGR) of 26%, a very high rate.

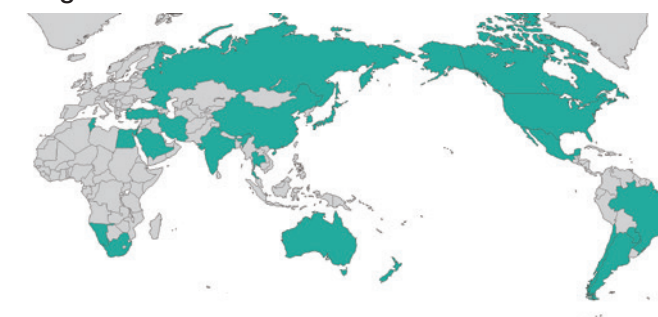
As a herbicide for major crops such as soybeans, corn, wheat, and sugarcane, AXEEV® is mainly sold in the U.S., Australia, Argentina, Brazil, and India. In addition to these major markets, AXEEV® is sold in Asia, Africa, and elsewhere. Besides the application for grain cultivation, we are also developing, promoting, and marketing AXEEV® products for golf courses, pastures, orchards, and non-cropland.

AXEEV® shows excellent long-lasting efficacy for controlling herbicide resistant weeds, especially against Italian ryegrass in wheat cultivation and amaranthus in soybean cultivation. Taking advantage of this characteristic of AXEEV®, we have provided technical service in agricultural fields where resistant weeds have become a problem, conducted sales promotion, and introduced new mixed formulations. As a result, AXEEV® has gained recognition among growers as an essential product for controlling herbicide resistant weeds and established a powerful position in the market.

To date, AXEEV® is registered in 23 countries as an agricultural chemical. Supporting various sales promotion activities of our partners in each country, we are working to expand the use of mixed formulations including AXEEV®. In addition, we are striving to further expand sales of AXEEV® by expanding applications to other crops and continuing to develop value-added mixed formulations. We are also

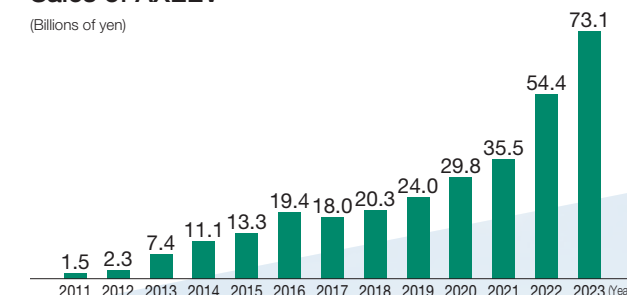
continuing evaluation and development in Asia and Africa with a view to increasing the number of countries where AXEEV® is sold.

### Registration Status of AXEEV<sup>®</sup> (As of February 2024)







## Sales of AXEEV®


(Billions of yen)



### Year of Launch in Major Countries

2011		Australia
2012		U.S.
2017		Argentina

2019  India

2020  Brazil



Special Feature 1

Contributing to Resolve Social Issues

Herbicide AXEEV®

Future Prospects and Strategy

The global agricultural chemical market has fluctuated greatly in recent years. In 2022, the tense international situation led to a sharp rise in agricultural chemical prices and panic buying of agricultural inputs by growers. In 2023, agricultural chemical products were in plentiful supply, their prices fell, and distributors pared inventories. In 2023, sales from Kumiai to distributors in each country proceeded as planned, driven by strong demand in the North American market. However, sales of AXEEV® on the ground did not proceed as planned by the distributors, and distribution inventories in some countries exceeded the appropriate range. Sales growth is expected to slow in 2024, as the priority will be to sell off these inventories rather than increase sales from Kumiai to distributors in each country. Although the market entry of generic products will have an impact over the medium to long term, the target market itself is expanding, and we think there is room for further growth in sales of AXEEV®.

In North America, the use of AXEEV® products is expanding owing to the launch of new mixed formulations in the soybean and corn markets and the widespread use of overlapping soil applications (two applications of a soil-applied herbicide during cultivation). In addition, we are developing new mixed formulations.

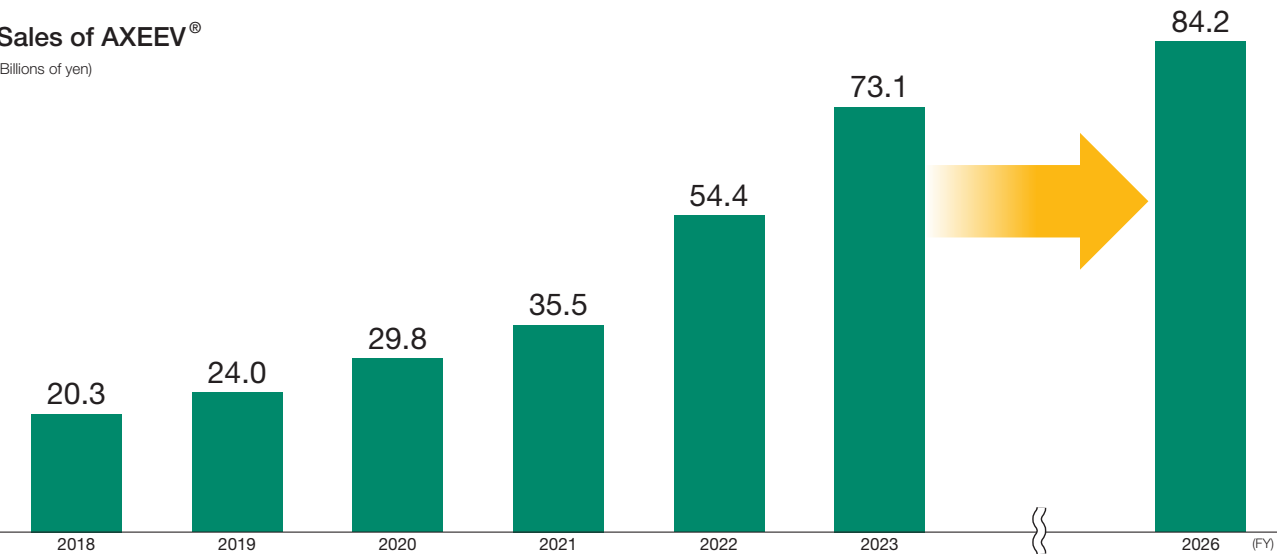
In Brazil, sales have increased since the launch in 2020, but in 2024 shipments from Kumiai will be systematically reduced in order to restore distribution inventory to an appropriate level. We aim to expand sales of AXEEV® over the medium to long term by introducing new mixed formulations for the soybean and corn markets, and by expanding the use of AXEEV® in the sugarcane market.

Argentina ranks third after Brazil and the U.S. in terms of the area of farmland devoted to soybean cultivation, and with the spread of herbicide resistant weeds, continued growth in demand for AXEEV® products is expected. Moreover, shipments to some distributors who had been adjusting their inventories will resume in 2024.

To date, no information on the development of active ingredients that pose a threat to AXEEV® has been identified. On the other hand, as the substance patent for AXEEV® expired in 2022, generic products have been available in Australia since 2023 and are expected to be introduced in Argentina within the next few years. In response, in order to ensure continued growth in sales of AXEEV®, we will strengthen measures such as sales promotion support, implementation of an appropriate pricing strategy, and promotion of development of mixed formulations. We will also strive to strengthen competitiveness by further reducing production costs through optimization of the supply chain in Japan and overseas. Kumiai holds several patents on the mixed formulations and manufacturing method for AXEEV®. We are implementing an IP strategy that leverages these patents and, if Kumiai’s intellectual property is infringed, we will take decisive action in the market concerned.

Sales of AXEEV® are expected to continue growing, not only through the maintenance and expansion of sales in existing markets but as a consequence of registration as an agricultural chemical and sales expansion in new markets. Under the new Medium-Term Business Plan launched in FY2024, AXEEV® is expected to continue driving Kumiai’s growth.

Sales of AXEEV®  
(Billions of yen)



Column | Social Significance and Safety of Agricultural Chemicals

Agricultural Chemicals That Contribute to Resolving Food Insecurity and Alleviate Certain Social Issues, Which Are Challenges Common to Humankind Worldwide

With approximately 700 million people said to be suffering from food deprivation, the need to produce sufficient food to feed the growing population has emerged as a global issue. Agriculture itself is facing various problems such as climate change, limits to the expansion of land for cultivation, and a decrease in the number of farmers. The SDGs adopted by the United Nations, which include goals related to hunger, climate change, and the natural environment, correspond to the pressing issues facing humankind.

One way of achieving a world where no one has to worry about lack of food would be to increase food production by expanding the area under cultivation. However, in addition to deforestation and other forms of environmental degradation, there are issues such as the need to secure water resources, and the additional area that can be brought under cultivation is limited. Therefore, it is important to efficiently produce crops and increase yields within a limited area.

Agricultural chemicals on which Kumiai is continuing research contribute to the resolution of these issues.

A survey by the Japan Crop Protection Association shows that without the use of agricultural chemicals, the yields of rice and apples are reduced by about 24% and 97%, respectively. Other crops would also be affected, such as by lower yields and the lower value of shipments due to poorer quality. Appropriate use of agricultural chemicals helps maintain quality and yields while enhancing food safety and security.

Agricultural chemicals also make a significant contribution to labor-saving in agriculture while reducing environmental impacts. The herbicide amount for paddy rice, which was previously 3 kilograms per 10 ares, has been reduced to 250 grams, one-twelfth of the previous amount, thanks to technological advances. Not only is the time and labor required for application greatly reduced, but energy use and GHG emissions associated with the production and distribution of

agricultural chemicals are also reduced. In such ways, agricultural chemicals contribute significantly to food production and provide essential support for the sustainability of society. However, as consumers of crops have few opportunities to perceive the benefits of agricultural chemicals, and negative attitudes without scientific basis have wide currency, general consumers’ understanding of agricultural chemicals and their value tends to be patchy.

The primary role of agricultural chemicals is to control crop diseases, pests, and weeds. Plants inherently have a defense system, such as toxic substances and bitter substances that protects them from diseases and pests. However, in the process of breeding them for food, their defenses decline. Historically, olive oil and sulfur have been used to compensate for the decline of natural defenses. Modern agricultural chemicals are the result of the science-based evolution of such natural pest control materials. Natural materials may contain ingredients that are harmful to humans and the environment. Agricultural chemicals are painstakingly designed to eliminate such harmful substances and to be effective only on specific targets.

Today, strict safety evaluation criteria are established by law, and only those products that are judged not to be harmful to crops, users, consumers, and the environment are permitted to be sold as agricultural chemicals. Although agricultural chemicals have a negative image in many people’s minds, their safety is meticulously assured through cutting-edge research and development. Contributing to the stable supply of food worldwide by solving the problems facing contemporary agriculture, agricultural chemicals are indispensable for a sustainable society.

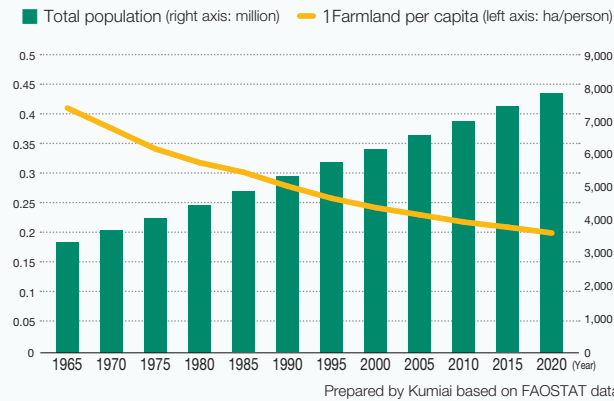
Activities to Raise Awareness about Agricultural Chemicals

Kumiai conducts awareness-raising activities to communicate accurate knowledge of agricultural chemicals to direct stakeholders and general consumers and deepen their understanding of agriculture.

As one of our initiatives, we have created a series of brochures on agricultural chemicals used for crops. To date, we have published brochures on rice, apples and tangerines, and capsicum and potatoes. The brochures include cartoons to explain the role of agricultural chemicals in crop cultivation. Distributed to schools and at agriculture-related events, the brochures are also used in classes given by Kumiai at schools. Through these activities, we aim not only to enhance our corporate value by disseminating accurate information on agricultural chemicals but also to foster an environment in which growers and Kumiai employees can handle agricultural chemicals with confidence.



World Population and Farmland per Capita



Kumiai Group sells agricultural chemicals indispensable for maintaining and improving crop (food) production. We provide safe and secure agricultural chemical products based on integrated processes covering every phase from chemical discovery through to manufacturing and sales. Our Ultimate Goals are to be an “Advanced chemical manufacturer that contributes to agriculture, which supports stable food supply, and develops innovative technologies and unique business domains.” To realize these goals, we are committed to developing and promoting new products and technologies that contribute to the “Strategy for Sustainable Food Systems, MIDORI” set forth by the Ministry of Agriculture, Forestry and Fisheries, thus helping ensure the stable supply of food.

Managing Executive Officer, Head of Domestic Sales Division IWATA Kouichi



Opportunities, Threats, Strengths, and Weaknesses

Opportunities

- Increase in the number of large-scale growers and agricultural corporations
- Expanding demand for environmentally-friendly agricultural chemicals and physical pest control in accordance with the Strategy for Sustainable Food Systems, MIDORI

Threats

- Reduction in the area of cropland
- Termination of sales of agricultural chemicals whose registration is difficult to maintain
- Increase in raw materials cost

Strengths

- In-house development and manufacturing of active ingredients and products
- One-of-a-kind products (MAMETSUBU® products)
- Strong, community-based sales network

Weaknesses

- Decrease in sales of products for horticulture

Business Environment

Japanese agriculture is facing various issues, including large-scale natural disasters, the effects of global warming (high temperature damage to crops), a shortage of growers due to aging, a decrease of cropland, rising prices of agricultural inputs, and stagnant prices of crops. In these circumstances, the Ministry of Agriculture, Forestry and Fisheries formulated the Strategy for Sustainable Food Systems, MIDORI, in 2021, which aims to achieve both productivity improvement and sustainability in the food industry and agriculture, forestry, and fisheries through innovation in order to establish a sustainable food system. The targets to be achieved by 2050 under the strategy include zero emissions of CO<sub>2</sub> from agriculture, forestry, and fisheries, a shift to low-risk agricultural chemicals, the establishment and dissemination of an integrated pest management system, and organic farming initiatives.

The initiatives and technologies to be realized by 2030 include pinpoint application of agricultural chemicals to areas suffering damage using smart agriculture technology, pest control technology using indigenous natural enemies and light, pest outbreak prediction technology using AI and ICT technology, diffusion of integrated pest management (IPM), and expansion of organic farming. Development and dissemination of new agricultural chemicals meeting these needs, biostimulants, and new pest control technologies are required.

In these environments, shipment volumes in the Japanese agricultural chemical market are declining, but the market size has been unchanged or is increasing slightly at around 340 to 350 billion yen due to higher agricultural chemical prices reflecting cost increases.

Business Contents

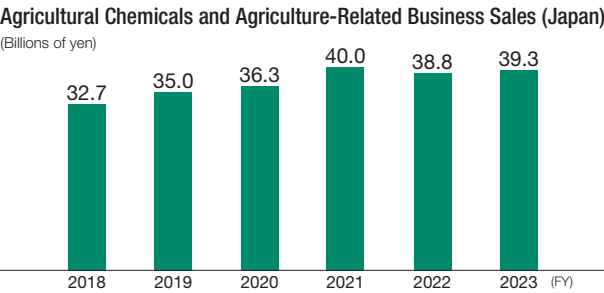
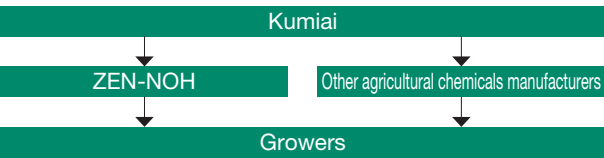
Kumiai's product portfolio includes hundreds of various herbicides, fungicides, and insecticides for meeting the different needs in the market, which vary according to the region. We also have expert sales persons and engineers spread across our 11 bases in Japan for community-based sales and activities to promote wider use. They propose agricultural chemicals according to the region, and provide after-sales service.

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 and products to other manufacturers of agricultural chemicals to maximize sales and profits.

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 challenging, net sales from our agricultural chemicals business in Japan are trending

upwards centering on our new products. Net sales for FY2023 reached 39.3 billion yen.



Business Strategy

Targets for the Period Covered by the Medium-Term Business Plan

Under the new Medium-Term Business Plan, we will further strengthen our efforts in the paddy rice field, our business foundation in Japan, rebuild the business in the horticultural field, and transform the profit structure by focusing on our proprietary active ingredients, based on the medium- to long-term marketing strategy.

Paddy Rice Field

In the paddy rice field, the core of our domestic agricultural chemicals business, we will propose one-shot herbicides that meet the needs of growers from our extensive lineup, centering on our proprietary active ingredients such as EFFEEDA®, a herbicide for paddy rice. By expanding the area of application of our products from 330,000 hectares in FY2023 to 380,000 hectares in FY2026, we aim to continue holding the top share in the market.

Regarding paddy rice nursery box application products, we will establish a foundation for the dissemination of our proprietary active ingredient DISARTA® to expand the area of application from 230,000 hectares in FY2023 to 260,000 hectares in FY2026, and increase our market share for paddy rice nursery box application products.

Horticultural Field

In the horticultural field, we plan to concentrate on our proprietary active ingredients and achieve sales of 116% of the FY2023 level in FY2026. Specifically, we will focus on expanding sales of KITAXEEV® launched in 2021, which contains the field crop herbicide AXEEV®, and on VANENTA® (Flupentiofenox), a new miticide, which is being developed in house. VANENTA® is drawing attention as a new miticide effective for mites that are less susceptible to conventional agricultural chemicals used in Japan. We are preparing to launch this to expand our business into the horticultural field.

Expansion of the Market Share in Existing Markets (Paddy Rice)

Regarding one-shot herbicides, which are the core products of our domestic agricultural chemicals business in the paddy rice field, and paddy rice nursery box application products, we will expand the lineup of mixed formulations of EFFEEDA® and DISARTA® to ensure suitability for the characteristics and needs of the regions in which they are applied, to further expand our market share.

To maintain our position at the top of the market for one-shot herbicides for paddy rice, which we have held for three consecutive years since 2021, we will work to expand sales of AKATSUKI® products and low-cost LAOH® products, which are new mixed formulations of EFFEEDA® launched in FY2023. In 2024, we will introduce new SHINGEKI® products that are gentle on the environment, to establish a foundation for their widespread use.

For paddy rice nursery box application products, we will endeavor to expand our market share, which is led by DISARTA®. We will work to increase sales of BOON® BUZZ® SC, which is a new mixed formulation of DISARTA® launched in Hokkaido in 2023. In addition, the paddy rice nursery box application product BOON® HADES, which are effective against flying insect pests that have become less susceptible to conventional insecticides, will be launched in the western Japan market in 2024 to establish a foundation for widespread use of the product.

Moreover, by working to maximize the lineup of products in the field of mid- to late-stage herbicides centering on our proprietary active ingredients, we aim to raise the overall level of our domestic agricultural chemicals business.

Expansion of the Market Share in Existing Markets (Non-Cropland)

Kumiai Group sells its products for non-cropland fields (golf courses, highways, railroad tracks, solar panels, etc.) through RIKENGREEN, a subsidiary of Kumiai. In the golf course field, an important field, we aim to expand sales of our own products by further strengthening relationships with major golf course operators while maintaining the No.1 market share of SOLISTE SC and SPADA water dispersible granules, which are essential for the control of annual bluegrass and a kind of Cyperus (*Cyperus brevifolius*), which are difficult-to-control weeds. We will also continue to launch new products and solidify our position as the industry leader. We aim to achieve our targets by strengthening measures to control difficult-to-control weeds and shrubs in the highway field, expanding sales for Shinkansen slopes in the railway track field, and approaching companies that have not yet applied chemicals in the solar panel field. We are involved in a satochi-satoyama conservation project in Tochigi Prefecture and will continue the study with a view to social implementation of chemical-based weed management.

Responding to New Needs (Labor Saving, Environment)

To address issues facing agriculture in Japan, Kumiai is committed to developing and promoting new products and technologies that contribute to the Strategy for Sustainable Food Systems, MIDORI set forth by the Ministry of Agriculture, Forestry and Fisheries with the aim of supporting stable food production and realize sustainable agriculture.

Recognizing that smart agriculture, which aims to make agricultural work more efficient and labor-saving, is indispensable for sustainable productivity improvement as stated in the Strategy for Sustainable Food Systems, MIDORI, we are promoting collaboration with smart agriculture-related manufacturers, etc. Specifically, we are endeavoring to make agricultural work more efficient and labor-saving through the application of our proprietary labor-saving MAMETSUBU® formulations for paddy rice, in combination with drones for agricultural use, radio-controlled boats, and automatic irrigation systems, which are becoming increasingly popular. 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 inputs (biostimulants and new microbial pesticides), which we will promote for social implementation.

We will continue making efforts to improve productivity and agricultural sustainability while ensuring harmony with the environment by providing essential products for both cropland and non-cropland.







Kumiai Group is promoting the wide use of products containing safe and secure proprietary active ingredients not only in Japan but also around the world, so as to contribute to improving the productivity of agriculture globally. In response to changes in the environment in which agriculture is conducted, such as increased demand for food due to global population growth, sustainable and environmentally-friendly agricultural production, and reduced use of agricultural materials, including agricultural chemicals, we will contribute to stable production and supply of food worldwide by leveraging R&D capabilities and the sales system, which are Kumiai Group’s strengths.

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

UCHIDOI Toshiharu

Opportunities, Threats, Strengths, and Weaknesses

Opportunities

- Increasing demand for food as the world population grows
- Spread of resistant weeds and pests against conventional agricultural chemicals
- Increasing demand for products with low environmental impact

Strengths

- In-house development and manufacturing of active ingredients and products
- System of strong cooperation with local distributors

Threats

- Emergence of resistant weeds and pests against Kumiai agricultural chemical products
- Emergence of inexpensive competing compounds and generic products

Weaknesses

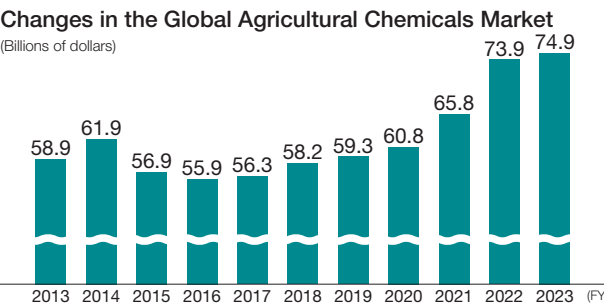
- Dependence on local distributors and lack of own distribution network
- Lower price competitiveness of proprietary products than generic products

Business Environment

The global agricultural chemicals market continues to grow, centering on South America and Asia, on the back of a growing world population and increasing demand for grain due to changes in dietary habits. According to AgbiolInvestor, the market is projected to worth 82.5 billion dollars in 2027.

Meanwhile, the global agricultural chemicals market has been fluctuating greatly over the past few years. In 2022, the prolonged impact of the COVID-19 pandemic and the tense international situation, including the situation in Ukraine, caused panic buying of agricultural inputs by growers, and agricultural chemical prices soared. In 2023, agricultural chemical products were in plentiful supply, their prices fell, and optimization of distribution inventories, which had ballooned by 2022, began. This trend of inventory

optimization is expected to continue in 2024 and is expected to affect sales of Kumiai products.

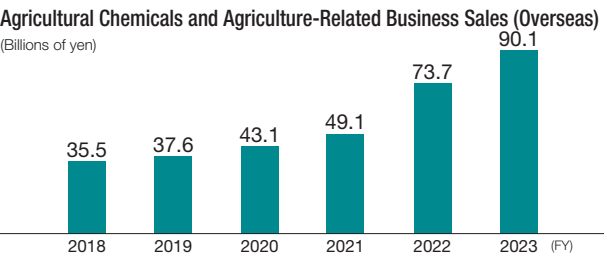


Business Contents

Kumiai sells its proprietary products in more than 50 countries around the world. Overseas sales of the Agricultural Chemicals and Agriculture-Related Business for FY2023 were 90.1 billion, benefitting from continued growth due to a favorable market environment.

We sell to growers in collaboration with Kumiai Group’s affiliated companies and distributors that have strong sales networks in each market. Active ingredients that Kumiai Group sells are commercialized by distributors, and are then sold to local retailers and growers. In addition to 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 through distributors to increase added value by differentiating our products from those of our competitors. Regarding sales promotion, employees of Kumiai Group visit local markets in order to conduct surveys, identify

customer needs, and propose effective usage suited to the region, leading to development of new markets.



Business Strategy

Targets for the Period Covered by the Medium-Term Business Plan

The new Medium-Term Business Plan targets consolidated net sales of 185.0 billion yen in 2026 and calls for further growth of sales of agricultural chemicals overseas. The growth driver will be the field crop herbicide AXEEV® mainly for use with soybeans, corn, and wheat. Sales of AXEEV® have been brisk since it fulfills a crucial role in the control of weeds resistant to conventional herbicides that are becoming a problem in grain cultivation. Sales of AXEEV® reached 73.1 billion yen in FY2023. Herbicide resistant weeds are increasing worldwide, and the market for AXEEV® is expected to continue growing. AXEEV® is currently registered as an agricultural chemical in 23 countries, and development is underway in more than 10 countries. In countries where AXEEV® is already marketed, we will develop new mixed formulations, expand the range of crops to which AXEEV® can be applied, and implement distribution measures such as sales promotions. In addition, we will strive for early launch and sales expansion in new markets. Plans call for sales of 84.2 billion yen in 2026. Although the substance patent for AXEEV® expired, the patents for the manufacturing method, intermediates, and mixed formulations are still in effect. We will take decisive action in the event of any infringement of Kumiai’s intellectual property in any of our markets. In addition to AXEEV®, we will vigorously promote development and sales expansion of EFFEEDA® herbicide for paddy rice and DISARTA® fungicide for paddy rice, aiming to achieve the targets of the new Medium-Term Business Plan .

Current Status and Strategy by Region

North America

AXEEV® for the U.S. is our mainstay product for sales in North America. In the U.S., the use of AXEEV® is growing because of the increase in the land area subject to soil application in the soybean market, against the background of the spread of herbicide resistant weeds and the widespread use of overlapping soil applications (two applications of a soil-applied herbicide during cultivation). In addition, as a result of the development and launch of new mixed formulations, sales of AXEEV® are trending upward. In the corn market, sales are also trending upward due to the spread of overlapping applications and the launch of new mixed formulations. We will continue to develop new mixed formulations while expanding the range of application methods and applicable crops. We will also seek to increase sales through packaged sales of AXEEV® products in combination with other products and services of the distributors. In the U.S., data on biological trials, safety assessment studies, and crop residue tests used in agricultural chemicals registration are protected, and therefore, Kumiai has exclusive rights to use the data, making introduction of generic products to the market difficult for the foreseeable future. We will implement the above-mentioned sales measures to expand sales of AXEEV® before the market entry of generic products.

Central and South America

AXEEV® for Brazil and Argentina is our mainstay product for sales in this region. In Brazil, although AXEEV® sales have been increasing since its launch in 2020, distribution inventories accumulated owing to concerns about supply in view of the global situation until 2022. In 2024, shipments from Kumiai will be systematically adjusted in order to optimize inventories. We aim to increase sales by introducing new mixed formulations in the

soybean and corn markets and by increasing use in the sugarcane market. In Argentina, the market for AXEEV® is expected to grow as herbicide resistant weeds are spreading in the soybean and corn markets. Although generic products are expected to be introduced in the Argentine market starting in 2024, we will adopt an appropriate pricing strategy to maintain and expand our market share in the growing market.

Asia and Oceania

AXEEV® for Australia is our mainstay product for sales in this region. In Australia, Italian ryegrass (*Lolium multiflorum*), which is resistant to conventional herbicides, is becoming a major problem in wheat cultivation, and sales of AXEEV® have been increasing because of its efficacy. However, generic products are expected to become available from 2024 onward. We will implement an appropriate pricing strategy and strengthen sales promotion support and other measures to maintain and expand the market share. Moreover, EFFEEDA®, a herbicide for paddy rice, and DISARTA®, a fungicide for paddy rice, whose sales are increasing in Japan, were launched in South Korea in 2020 and 2023, respectively. We have been continuing development and launch of new mixed formulations. We will continue collaboration with local distributors to expand sales. Furthermore, in Asia, development of Kumiai products is underway, utilizing the sales network of AAI, an agricultural chemicals manufacturing and sales company based in Singapore, which became a subsidiary in 2021.

Middle East and Africa

AXEEV® is our mainstay product in this region as well. Currently, AXEEV® is sold in South Africa, Saudi Arabia, and certain other countries, and sales expansion is pursued through development of new mixed formulations and sales promotion support. Sales in Africa have been smaller than in other regions because we have not been able to conduct development and sales in many countries in Africa. However, in cooperation with AAI, which has a sales network in the region, we will vigorously promote evaluation and development of AXEEV® and other Kumiai products in order to expand the number of countries where our products are sold and increase sales.

Europe

Prohexadione-calcium, a plant growth regulator, is our mainstay product in Europe. Owing to its excellent performance and safety, its sales have continued increasing for more than 20 years since its launch. This product has been marketed mainly for wheat, but in recent years, mixed formulations with a fungicide have been developed for sunflower and oilseed rape, and the number of countries where it is registered is growing. We plan to maintain and wherever possible expand sales, going forward. Moreover, we filed an application in 2021 for agricultural chemical registration of EFFEEDA®, which is marketed in Japan as a herbicide for paddy rice, and are developing products for wheat and other crops.



REGALIS®, one of prohexadione-calcium products in Europe  
Photo courtesy of BASF. REGALIS® is a registered trademark of BASF.



In the Fine Chemicals Business, Kumiai Group is applying its advanced organic synthesis technology cultivated in the agricultural chemicals business. The Fine Chemicals Business includes four subsegments, which are the chlorination business, advanced chemicals business, expanded polystyrene business, and specialty chemicals business, and is engaged in a wide range of businesses in various fields that support the foundations of our daily lives. We are contributing toward achieving the SDGs and a recycling-based society through the development and supply of fine chemical products used in infrastructure and advanced technologies for a safe and prosperous life.

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

URUSHIBATA Ikumi



Opportunities, Threats, Strengths, and Weaknesses

**Opportunities**

- Increasing demand in advanced fields such as pharmaceuticals, fine chemicals, and semiconductors

**Threats**

- Crude oil prices and exchange rate fluctuations
- Geopolitical risks and U.S.-China economic friction, etc.

**Strengths**

- Advanced organic synthesis technology cultivated through the manufacture of active ingredients for agricultural chemicals
- Integrated research and development system from compound discovery to development of new products

**Weaknesses**

- Positioned upstream in the value chain and affected by customer development trends, demand, and inventory situations

Business Environment

**Chlorination Business**

In the chlorination business, the core of the Fine Chemicals Business, competition in the terephthaloyl chloride (TPC), isophthaloyl chloride (IPC), and aramid markets is intensifying due to the rise of foreign manufacturers offering inexpensive products. In addition, demand has been slowing because of the global market downturn, including the slowing tempo of China's economy. However, TPC and IPC are raw materials for aramid fibers, which are widely used in the automotive, aerospace, and telecommunications industries, and are indispensable for building social infrastructure. Moreover, as infrastructure networks need to be enhanced in line with global low-carbon considerations, increased safety awareness, and the progress of IoT, the aramid fiber as well as the TPC and IPC businesses that meet these requirements are expected to grow steadily over the medium to long term. We will maintain our focus on quality improvement and cost reduction with a view to

expanding our shares of growing markets.

**Advanced Chemicals Business**

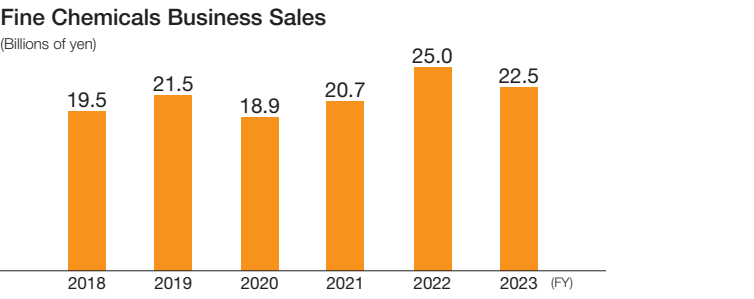
In the context of what is widely viewed as the fourth industrial revolution, digital technologies typified by high-speed communications and artificial intelligence (AI) are rapidly evolving, and our living environment is being transformed drastically. Despite the impact since 2022 of the global economic downturn and declining consumer demand, continued growth of the semiconductor field, which is the bedrock of our digital society, can be expected. The value of the global semiconductor market reached 574.0 billion dollars in 2022, having roughly doubled in size in a decade. We will continue developing our business in growth fields such as materials for semiconductors and other electronic applications, in line with the progress of AI, self-driving cars, and other technologies.

Business Contents

Kumiai is engaged in R&D, manufacturing, and sales of fine chemicals used in various aspects of daily life by applying advanced organic synthesis technology cultivated over many years. Because many of Kumiai Group's fine chemical products are ingredients and materials, the "Kumiai" name is not evident in the market. However, our products are applied in everyday items such as smartphone circuit boards, aircraft and automobile parts, and waterproof materials for roads and buildings. In addition to the development and sales of Kumiai products, we conduct custom manufacturing, including manufacturing process development. Kumiai Group's Fine Chemicals Business is broadly divided into four categories, operating in wide-ranging fields.

- 1 Chlorination business (chlorotoluene and chloroxylene derivatives as materials for intermediates for agricultural chemicals and pharmaceuticals, dyes and polymer materials)
- 2 Advanced chemicals business (bismaleimides as raw materials for resins with high heat resistance, urethane-related products, custom manufacturing)

- 3 Expanded polystyrene business (packaging materials for agricultural products and electrical appliances, home appliance parts, building materials, ground settlement prevention measures)
- 4 Specialty chemicals business (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)



Business Strategy

**Targets for the Period Covered by the Medium-Term Business Plan**

Since the business integration with Ihara Chemical Industry in 2017, we have been working to develop the Fine Chemicals Business as the second pillar alongside the agricultural chemicals business. The Fine Chemicals Business recorded net sales of 25.0 billion yen in FY2022. The sales target is 28.5 billion yen under the Medium-Term Business Plan whose final year is FY2026 and will be at least 30.0 billion yen under the next Medium-Term Business Plan. To achieve these targets, we believe that in addition to further sales expansion in existing businesses, it is essential to create new businesses and vigorously invest in growth areas, utilizing M&A and capital alliances as well. In particular, we are emphasizing business development in the field of semiconductors and other electronic materials. Nowadays, given the rapid progress of digital technology, semiconductors that support the digital society are undoubtedly indispensable for our world, and explosive growth in demand is expected in the future. By identifying new markets and needs and providing high-quality products and services that leverage our proprietary technologies, we will grow the Fine Chemicals Business into the second pillar alongside the agricultural chemicals business and contribute to the realization of a safe, secure, and prosperous society.

**Action 1**

**Expansion of Existing Businesses**

**1. Bismaleimides (BMIs)**

Demand for BMIs, for adding heat resistance and toughness to resins used in laminates and composite materials, remains robust, and demand for products with high heat resistance, high strength, low dielectric constant, and other attributes is further increasing. Under the new Medium-Term Business Plan, we intend to leverage Kumiai Group's extensive portfolio of BMIs to develop new BMI derivatives and cultivate new customers and applications. Regarding the production system, construction of a new multi-plant capable of producing BMIs is scheduled for 2025, to strengthen our capacity to meet growing demand.

**2. Amine Curing Agent**

We have been manufacturing and selling diamine curing agents for urethane and epoxy resins. We intend to expand the product lineup to include curing agents responsive to environment, health, and safety (EHS) considerations, for which demand is expected to grow, and products targeting the electronic materials field. In addition to the development of EHS-conscious urethane systems and novel diamines, we will promote applications to more profitable, high-value-added products, including polyamides, polyimide and other high-performance materials, in order to maximize sales of diamines.

**3. Chlorination Business**

Chlorotoluene derivatives, our main products, are used in the pharmaceutical and agricultural chemical fields, as well as for facial cleansers, and chloroxylene derivatives are used as raw materials for functional resins and fibers. In particular, demand is expected to remain buoyant in the telecommunication infrastructure and automobile-related fields for IPC and TPC, which are mainly used as the principal raw materials for aramid fibers, and we will continue to focus on expanding sales and profits of IPC and TPC. Furthermore, we will promote custom manufacturing of functional

resin raw materials and the shift to higher-value-added products further downstream so as to acquire new customers and expand business domains.

**Action 2**

**Initiatives for the Custom Manufacturing Business**

Regarding the custom manufacturing business for fine chemicals, Kumiai has been applying its long-cultivated organic synthesis technology in R&D, manufacturing, and sales of fine chemicals. Under the new Medium-Term Business Plan, we will vigorously address themes for custom manufacturing in the semiconductor field, which requires the most stringent specifications in the electronic materials field, with the aim of expanding business domains. Moreover, geopolitical risks and economic friction between the U.S. and China have heightened, as reported in the media. In this context, the country/region of production has become an important factor in selecting a production base. Being alert to such international situations while enhancing our technology and development capabilities, we will vigorously tackle custom manufacturing in cutting-edge fields.



**Action 3**

**Establishment of the New Material Research Laboratory, Discontinuous Initiatives**

The New Material Research Laboratory was established within the Chemical Research Institute (ShIP) to create new products. This is an open lab where not only Kumiai's researchers but also researchers of Group companies collaborate. The aim is to develop innovative products by combining expertise through cross-organizational initiatives of Kumiai Group. Furthermore, in order to satisfy the quality and speed required by customers in cutting-edge fields, we will actively consider M&A and capital alliances, in addition to investments within the Group. We will devote ourselves to strengthening the foundation of the Fine Chemicals Business through discontinuous initiatives for developing new products and winning new contracts for custom manufacturing, etc., in order to expand business from a medium- to long-term perspective.







Kumiai Group possesses unique production technologies and production facilities that make it possible for us to produce and supply agricultural chemical active ingredients, formulations, and fine chemicals based on our development technologies for agricultural chemicals. Each factory carries out manufacturing and quality control under a quality management system and is endeavoring to improve the quality assurance system. Stable supply and stable operation are at the heart of our factories’ mission. In the pursuit of sustainability management, we are committed to stabilizing our supply chain through procurement from multiple sources and CSR procurement. In order to contribute to the reduction of environmental impacts, we are also implementing measures for reducing greenhouse gas emissions through consideration and utilization of environmentally-friendly materials and equipment.

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

Manufactured 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 markets around the world. It has acquired ISO9001 and ISO14001 certifications and ISO/IEC17025 accreditation, and manufactures and supplies high-quality active ingredients for agricultural chemicals and fine chemicals.



Kogota Factory

The Kogota Factory is our production base for herbicide granules used for paddy rice and field crops, MAMETSUBU®, water-dispersible granules, and emulsions and flowable formulations for insecticides and fungicides. It manufactures high-quality, environmentally-friendly products for Japanese and overseas markets on the premise of “Safety First” in accordance with the basic policies of ISO9001 and ISO14001.



Proprietary Production Technology

1 Establishing and Improving Manufacturing Technology in Collaboration with the Research & Development Division

In the synthesis of agricultural chemical active ingredients, Kumiai is able to quickly perform upscaling from the laboratory level and establish manufacturing methods for factories. This is accomplished on the basis of close collaboration between factories where the production takes place and research institutes in the process from the discovery of new agricultural chemicals to the optimization of synthesis methods for process chemistry, and through to actual production. This is the strength of Kumiai’s production system.

Similarly, for agricultural chemical formulations, which are final products, research institutes that develop formulations and factories collaborate to establish the manufacturing conditions to realize the developed formulation design at factories for production. Factories and research institutes also collaborate to reduce

Tatsuno Factory

The Tatsuno Factory is a multi-purpose factory capable of high-variety, low-volume production. It has production facilities capable of handling various formulations of agricultural chemicals, such as flowable formulations, granules, wettable powder, and water-dispersible granules of insecticides, fungicides, and herbicides. It manufactures high-quality, environmentally-friendly products for Japanese and overseas markets on the premise of “Safety First” in accordance with the basic policies of ISO9001 and ISO14001.



In 2022, a new plant for water-dispersible granules began operation. Equipped with cutting-edge facilities designed to reduce greenhouse gas emissions, as well as for ease of operation and safety, the plant is doing its utmost to ensure safe operation and stable supply.

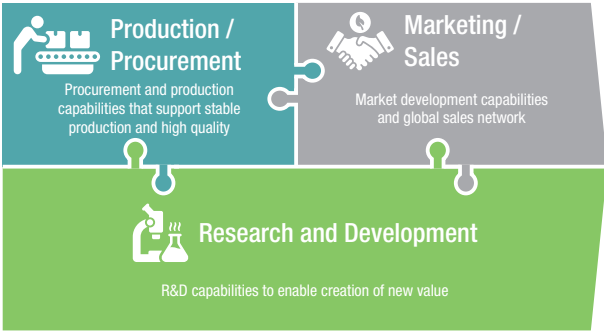


Plant for water-dispersible granules

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.



Plant for prototyping in Shizuoka



2 Organic Synthesis Technology

The Shizuoka Factory is equipped with a multipurpose plant capable of handling small- to large-scale production, as well as a large-scale clean disposal treatment facility for protecting the environment. These facilities allow us to utilize the organic synthesis technology that we have accumulated over the years 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 custom synthesis of organic compounds attuned to the needs of customers in various fields.

3 Agricultural Chemical Formulation Technology

The Kogota Factory and the Tatsuno Factory are equipped with manufacturing facilities and packaging facilities corresponding to various formulations of agricultural chemical products used in the Japanese and global agricultural markets. We also handle custom manufacturing for agricultural chemical formulations according to customer requests based on our accumulated formulation technology and proprietary capabilities. Kumiai’s proprietary formulation, MAMETSUBU®, is highly regarded by customers as a labor-saving formulation that is easier to apply to paddy fields and reduces work time compared to

Supply Chain

Regarding procurement of raw materials, we are promoting CSR procurement in accordance with the Kumiai Chemical Group Basic Policy on CSR Procurement and CSR Procurement Guidelines. Specifically, we purchase from suppliers who give consideration to human rights, safety, the environment, etc. and for this purpose we refer to the results of a questionnaire survey of suppliers. In order to mitigate procurement risks, such as rapidly changing raw material prices, delivery dates, and logistics, against the backdrop of the increasingly uncertain global situation, we strive to ensure stable procurement, production, and supply by building relationships of trust with more than 200 suppliers and practicing procurement of major raw materials from multiple sources.

Future Measures

The costs of raw materials and energy and logistics costs are expected to continue to increase. Our primary mission is to maintain a system for stable supply of products based on safe operation and we will strive for cost reduction by efficiently producing active ingredients and formulations and improving production conditions. We will introduce cutting-edge equipment and strengthen factories’ capabilities for ensuring efficient

conventional formulations. It can be applied in various ways, and is particularly well suited for application by drones, whose use has been on the rise recently, contributing to the improved efficiency of application operations and smart agriculture. 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 product supply.



MAMETSUBU® application by a drone

4 Initiatives for Reducing Greenhouse Gas Emissions

In order to achieve our greenhouse gas (GHG) emissions reduction target, in FY2023 we changed all electricity used at our three factories (Shizuoka, Kogota, and Tatsuno) to CO2-free electricity. Through these initiatives, Kumiai Group aims to achieve a 30% reduction in GHG emissions\* by FY2030 compared to FY2019. Moreover, in order to achieve further reduction of GHG emissions, we are promoting conversion to energy with a low CO2 emission factor and reuse of waste heat at each factory.

\*Scope 1 and 2 (Key seven Kumiai Group companies)

Results of Questionnaire Survey of Suppliers

Has established a basic policy and guidelines related to the environment and disseminated them to employees	100%
Has established a system to identify and assess the environmental impact of business activities	100%
Has identified the impact of chemical substances on the environment and is implementing measures to reduce and prevent such impact	100%
Discloses information on the basic policy and initiatives related to the environment	100%

Note: Questionnaire survey of the top 14 suppliers with the highest procurement results (83%, excluding companies and organizations with capital ties to Kumiai)

production. We will also implement measures for reducing greenhouse gas emissions through the use of environmentally-friendly raw materials and packaging and introduction of related equipment. With regard to procurement, Kumiai Group will continuously work to ensure a stable supply chain and practice CSR procurement.



Since its foundation, Kumiai Group has grown by leveraging its strength in research and development to create new agricultural chemicals. In accordance with the corporate philosophy, “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,'” we are vigorously engaged in the creation of new technologies and compounds for agricultural chemicals and fine chemicals. We will provide high-value-added products and technologies that meet market needs and customer requirements by utilizing our integrated R&D system that covers every phase from the exploration of new compounds to process chemistry.

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 know-how Kumiai has accumulated over many years. Using the results of physiochemical studies and information obtained from AI, we will create innovative new agricultural chemicals through exploration and optimization studies.

Biological Evaluation

We create highly effective, safe, and easy-to-use agricultural chemical products by applying high biological evaluation capabilities based on our accumulated data and know-how. Using not only greenhouses at our research institutes, and our own testing sites including paddy fields and croplands but also other testing institutions in Japan and overseas, we conduct trials in different environments for evaluating new compounds and new formulations.

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. We have established our unique formulations such as MAMETSUBU® and proprietary technologies such as the slow-release of active ingredients.

Assessment Studies on Safety and Environmental Impact, Elucidation of Mode of Action

Assessment of human and animal safety and environmental impact plays a crucial role in developing new agricultural chemicals that will be safe and secure far into the future. We

also scientifically elucidate the function and safety of new agricultural chemicals by clarifying their mode of action and metabolic mechanisms in living organisms.

Process Chemistry and Custom Synthesis Technology

Kumiai has advanced process chemistry technology enabling us to swiftly perform research into development of manufacturing processes for new compounds. In addition to development of manufacturing technologies at manufacturing scale according to the development phase and process chemistry, we also study the design of equipment and disposal treatments for achieving safe and low-cost manufacturing.



Research and Development

ShIP in Full-scale Operation Accelerates R&D

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



Achieving Successful Chemical Discovery with a Probability of 1 in 7,500

In the development of agricultural chemicals, it is essential to ensure safety as well as effectiveness in protecting crops. Agricultural chemicals must have no adverse impact on humans or on the environment, including animals, plants, and soil, other than the pests and weeds they target. Therefore, at present, development of agricultural chemicals is subject to numerous risk assessments based on more than 70 study results, and it takes an enormous amount of time and money to satisfy all of them.

In these circumstances, the probability of successfully developing a new agricultural chemical from newly synthesized compounds for evaluation is said to be typically 1 in 160,000. However, we have succeeded in developing new agricultural chemicals at an extremely high probability of 1 in 7,500.

I believe there are five factors that enable Kumiai to achieve such a high probability of successful development: establishment of an efficient R&D system, market forecasts closely linked to the field, accumulated development know-how, vigorous investment in R&D, and excellent human capital.

In October 2023, the Chemistry Research Institute Shimizu Innovation Park (ShIP), which integrates three Chemical

Research Centers that previously had been scattered at separate locations in Shizuoka Prefecture, began operation in Shimizu-ku, Shizuoka City, where Kumiai was founded. As a result, a system is in place for further fusion of different fields and cooperation between organizations.

Setting a Theme Is Important in R&D

Setting a theme, the first step in R&D, is critically important. In order to set a theme, it is essential to identify the agricultural chemical market in each region, conduct surveys, and collect information, and at the same time, forecast with a time horizon of five to 10 years ahead and formulate hypotheses. To do so, Kumiai researchers visit agricultural fields in Japan and overseas to communicate with farmers and researchers, forecasting the market, and setting R&D themes.

Moreover, having established our own database more than 40 years ago, we have continually updated it while accumulating R&D know-how. This allows us to instantly access past data and link it to current research.

Kumiai has been vigorously investing in R&D since its foundation. The development of a new chemical is very costly, but Kumiai has consistently invested in R&D even when the Company was in difficult circumstances. The fact that we have produced many long-selling products is proof of the effectiveness of this approach.

ShIP to Support Agriculture 10 to 20 Years from Now

Kumiai’s target for new chemical development is at least one new chemical every three years. To achieve this target, in view of the current situation where development takes longer and is more costly than ever before, we must steadily conduct R&D of agricultural chemicals that can contribute to agriculture in the world 10 to 20 years from now.

The two research institutes that will be our growth engines for agricultural chemical development are ShIP and the Life Science Research Institute. The nickname “ShIP” reflects the hope that by bringing together researchers from different fields in Shimizu, where Kumiai was founded, and strengthening collaboration, ShIP will be the hub for creating synergies and new innovations. The concept of ShIP consists of the following five points: (1) an environment for imagination and free thinking, (2) an environment for tireless improvement of technological capabilities and challenge, (3) shared innovation, (4) a safe, secure, and comfortable working environment, and (5) enhancement of the brand image. Equipped with spaces designed to promote interaction among researchers, cutting-edge experimental equipment and energy-saving equipment in the laboratories, and solar panels to supply part of the facility’s electricity, ShIP is designed not only to improve the efficiency of experiments but also for sustainability and environmental friendliness.

Researchers with Flexible Thinking Engaged in Development

Above all, I believe that what enhances our R&D capabilities is the excellence of our employees involved in research and their willingness to continually take on new challenges.

At Kumiai, researchers specialized in chemical synthesis, biological evaluation, mode of action research, safety

evaluation, and other fields are gathered. A culture is cultivated that is conducive to free and vigorous discussion among researchers across organizational boundaries on a regular basis and where they work with a sharp focus on their themes.

The culture of proactively taking on challenges and making the most of experience even in the event of failure is also passed down through the generations. Trial and error leads to the accumulation of data and a change in thinking can lead to new successes.

Recently, chemical discovery utilizing AI has been progressing, but without the conceptual ability of our researchers, successful development would not be possible. When a competitor’ non-selective herbicide, which was said to be all-purpose, was overwhelming dominant in the global market, a researcher of Kumiai had the idea that weed control in which herbicide is applied on the soil, rather than directly on the weeds that have emerged, which was the norm at that time, would attract increasing demand. Kumiai’s core product, the field crop herbicide AXEEV® was born from this idea. At the start of R&D, a fresh concept to create value, starting from scratch, and the ability to think outside the box are required.

Contributing to a Sustainable Society

The circumstances in which agriculture is pursued are continually changing. Given this reality, Kumiai with a history of 75 years from its foundation is at a major turning point as the prospect of becoming a 100-year-old company comes into focus. In order to survive in this era of rapid change, we must further refine our R&D capabilities, which is one of Kumiai’s strengths. We will continue to play an essential role in food production and embrace the challenge of contributing to the realization of a sustainable society. It is my earnest desire that our creative science will make the cherished dreams of people worldwide, which have yet to be fulfilled, a reality.



## Special Feature 2

# Three Intellectual Resources Resonate at Shimizu Where Kumiai Was Founded Chemical Research Institute Shimizu Innovation Park (ShIP)

The Chemical Research Institute ShIP is the latest, cutting-edge research institute in Shimizu-ku, Shizuoka Prefecture, integrating Kumiai's three Chemical Research Centers (New Molecule Research Center, Formulation Technology Research Center, and Process Chemistry Research Center), which were previously scattered at different locations in Shizuoka Prefecture. The concept of ShIP consists of the following five points: (1) an environment for imagination and free thinking, (2) an environment for tireless improvement of technological capabilities and challenge, (3) shared innovation, (4) a safe, secure, and comfortable working environment, and (5) enhancement of the brand image. We believe that the ideas of researchers in different fields gathered in a single space will resonate, generating diverse innovations. Our expectation is that ShIP will be a venue for creation of new technologies and new businesses that transcend the boundaries of agricultural chemicals and fine chemicals. The integration project started in 2018 and ShIP began full-scale operation in October 2023.



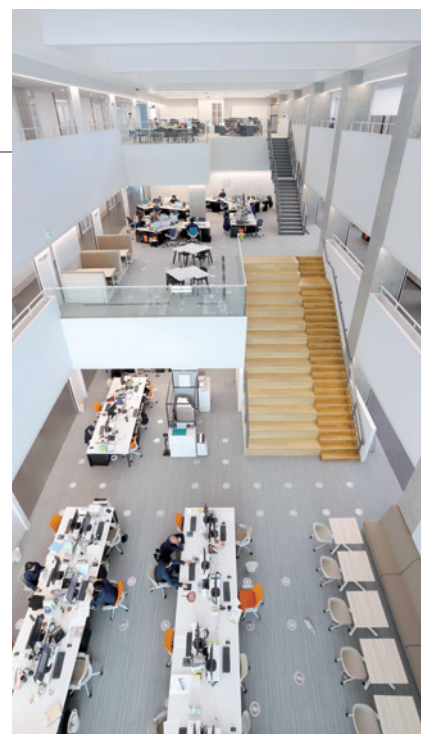
## ShIP's Role

ShIP, along with the Life Science Research Institute, is the core of Kumiai's research and development. In collaboration with the Life Science Research Institute, ShIP is engaged in research on creation and development of new agricultural chemicals and is studying how best to achieve their stable production. Moreover, ShIP will take on the challenge of expansion of business domains by expanding research areas beyond agricultural chemical research to include biostimulants and the development of greenhouse gas emissions reduction technology. Furthermore, ShIP is taking the lead in research on fine chemicals and aims to contribute to realization of a prosperous society through the use of Kumiai's proprietary technologies and new technologies.

## A Sustainable Research Institute That Promotes Communication

With the start of operation of ShIP, researchers who previously worked at different centers with different facilities and specialties now conduct their research in one building. We expect that the researchers from the three research centers will interact, transcending their specialty fields, and this broad and deep mixing of human capital will lead to a stream of innovations. To promote interactions among researchers in different research fields, ShIP has strategically placed spaces connected by an atrium and grand staircase, meeting rooms with an open atmosphere, and a cafeteria.

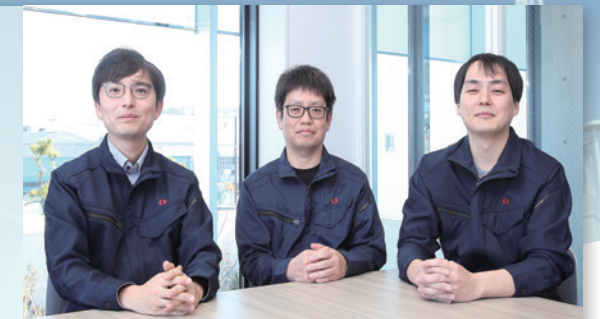
By improving the research environment, a safe, secure, and comfortable workplace has been realized. Laboratories are equipped with cutting-edge equipment and energy-efficient low air draft chambers to improve both experimental efficiency and to ensure a safe working environment for researchers through the use of ICT. Specifically, ShIP features laboratory equipment networked in a wireless LAN environment extending throughout the entire building, electronic lab notebooks have been adopted, and a reagent management system has been introduced. Also, there is a web conferencing system and a range of different meeting spaces are available. We believe that the latest cutting-edge laboratory equipment in a new research institute will enhance our researchers' motivation.



## Strengths of Kumiai from the Viewpoint of the Researchers

### Researchers of Research & Development Division

Research Manager, Herbicide & PGR Discovery Laboratory, New Molecule Research Center	MURAKAMI Seiya (middle)
Research Manager, Manufacturing Process Research Laboratory, Process Chemistry Research Center	ABE Takashi (left)
Senior Researcher, Fungicide & Insecticide Formulation Laboratory, Formulation Technology Research Center	OKADA Yuya (right)



### Role of Research Centers

**MURAKAMI** The main task of the New Molecule Research Center is to create physiologically active compounds that will be the seeds of active ingredients for agricultural chemicals. Initially, compounds are synthesized based on the findings, ideas, and inspiration of each researcher. If any positive results are found, a team will be created to conduct further research to explore highly active and safe compounds. Researchers find their research themes by such means as referring to patent information, papers, etc.

**ABE** The Process Chemistry Research Center develops optimal manufacturing processes for active ingredients created by the New Molecule Research Center. With an eye to factory production, we will establish a high value-added, environmentally-friendly manufacturing process suitable for upscaling and create a process that ensures safe manufacturing at factories. Specifically, we are working on the creation of world's first, innovative new reactions and the development of new catalysts that can achieve such a process, as well as research with an eye to upscaling factors to ensure stable yields and quality in the transition from laboratory to factory.

**OKADA** The Formulation Technology Research Center designs formulations to maximize the effects of the active ingredients by considering how the agricultural chemicals will be used and how they will actually work in the fields and croplands. The Formulation Technology Research Center has a wide range of roles, ranging from creating formulations of active ingredients to product development and through to follow-up of production at the formulation factory. The crops for which I am responsible are diverse, including rice, vegetables, and fruit trees. In order to achieve both ease of use and maximization of the effects of the active ingredients, we develop formulations suitable for each situation by devising secondary ingredients.

### Kumiai's Strengths in the Eyes of the Research Centers

**MURAKAMI** Kumiai's strengths are the diversity of our researchers, the atmosphere of freedom that encourages us to explore new paths, and the closeness to biological evaluation. The Life Science Research Institute is working closely with the New Molecule Research Center from the early stages of chemical discovery themes and supports the various aspects of chemical discovery research.

**ABE** The researchers are excellent and capable of working at a high level. In addition, we have a full range of facilities and laboratory equipment. As in the case of ShIP, Kumiai invests vigorously in R&D, and so I think we are agile in terms of development speed.

**OKADA** I think Kumiai's strength is that it can handle everything from chemical discovery and process chemistry to formulation

with a view to commercialization. I sometimes attend chemical discovery meetings and provide opinions from the viewpoint of the Formulation Technology Research Center. As we have people with diverse backgrounds who see things from many different perspectives, the range of ideas generated is impressive.

**MURAKAMI** Another strength of Kumiai is the knowledge we have accumulated over the years. The database allows us to go back in time and verify the results of tests and studies, leading to more efficient research.

### Changes since Relocation to ShIP

**MURAKAMI** Ever since the three separate research centers were integrated at ShIP, I have felt the convenience of being close to one another in many situations. In the chemical discovery phase, scheduling has become faster and the exchange of information with the Process Chemistry Research Center can now be used in chemical discovery.

**ABE** I used to contact other research centers via the Head Office, but now that we are together, I can ask questions right away. We have been working on a new theme recently in collaboration with the New Molecule Research Center. We are now able to meet in person for cross-referencing of detailed data and information on temperature, raw materials, etc.

**OKADA** At the Formulation Technology Research Center, we sometimes are unsure how the active ingredients behave in a formulation. Now we can immediately consult with other research centers. I think many researchers recognize that communication has become more efficient.

### Aspirations at ShIP

**MURAKAMI** I feel that bringing together various researchers in the same space has created even more diversity. I would like to receive more opinions from other research centers than ever before about the compounds created by the New Molecule Research Center.

**ABE** Although the organizations have been consolidated into ShIP, the analytical instruments are still located in their respective research centers. I think if researchers can use them regardless of their affiliations, research efficiency will be even better. I would like to further accelerate the speed of R&D throughout ShIP.

**OKADA** The Formulation Technology Research Center is focused on mixing active ingredients with surfactants and other secondary raw materials to create formulations. So I think it is rather a special research center within ShIP. I hope researchers at other research centers will be interested in formulation technology, a field different from what they are used to, so that new ideas will be created.

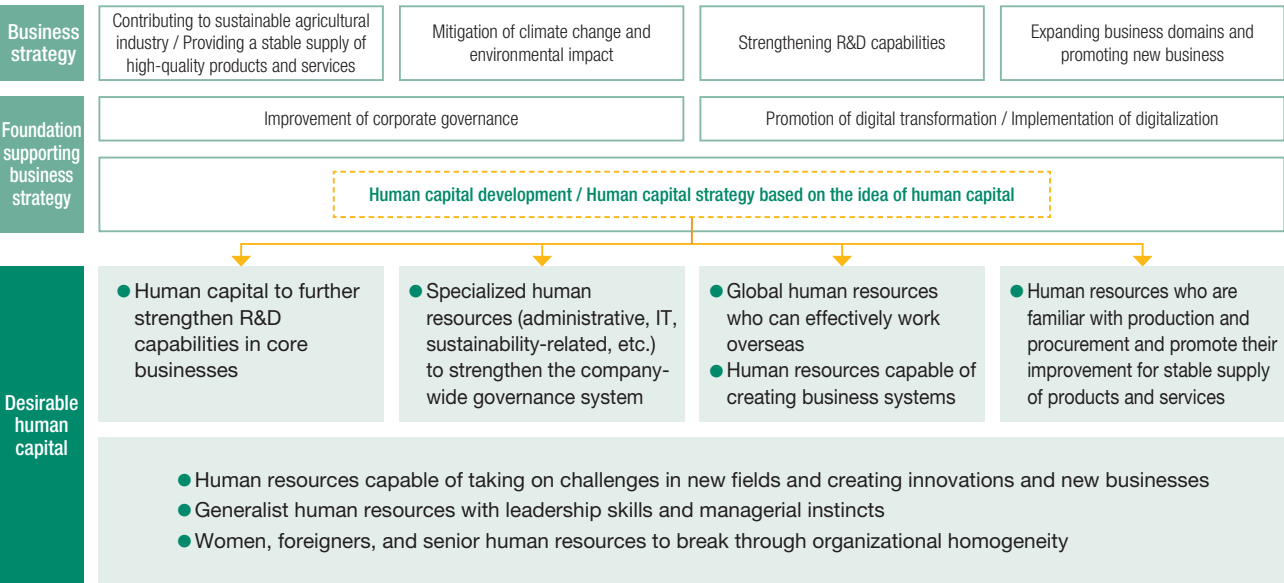


In order to achieve the targets set forth in the new Medium-Term Business Plan (FY2024–2026) and realize sustainable growth, it is essential to foster an organizational climate in which diverse and motivated human resources gather, develop, demonstrate their abilities, and work in a stress-free environment. Kumiai Group has identified the human capital essential for the implementation of the Medium-Term Business Plan , and has clarified its human capital strategy based on the desirable human capital.

Desirable Human Capital

One of the pillars of the new Medium-Term Business Plan is “human capital development / human capital strategy based on the idea of human capital,” which is the foundation of our business strategy.

Specifically, we have identified human resources with the skills and mindset shown below as priority human capital to be emphasized in order to promote our future business strategy.



Vision for the Human Capital Strategy

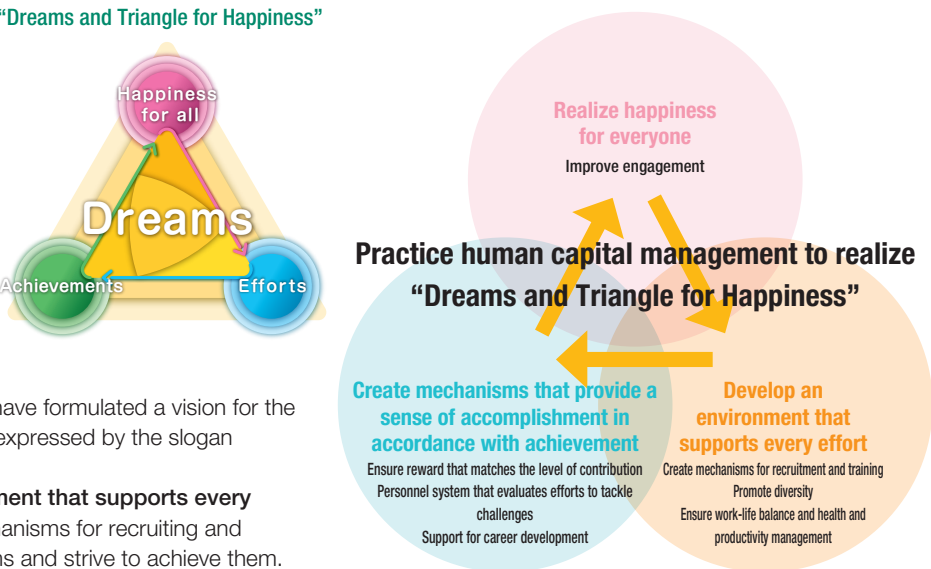
Kumiai Group’s slogan is “Dreams and Triangle for Happiness.” We aspire to create a stream in which each individual has dreams and then works to achieve them, and where satisfaction can be experienced through accomplishment, resulting in happiness.

To create a system such that the human resources listed above gather at Kumiai Group, achieve growth through their work, and work sustainably with a sense of accomplishment and job satisfaction, we have formulated a vision for the human capital strategy whose essence is expressed by the slogan “Dreams and Triangle for Happiness.”

The first step is to **develop an environment that supports every effort**. In other words, we will create mechanisms for recruiting and training human resources who have dreams and strive to achieve them. We will also vigorously promote diversity to cultivate an environment in which diverse human resources can strive to make the most of their strengths.

The next step is to **create mechanisms that provide a sense of accomplishment in accordance with achievement**. We will enhance the linkage between contributions and rewards so that employees can feel a sense of accomplishment and establish a personnel system that evaluates efforts to tackle challenges. We will also visualize career paths and support individuals’ continuous efforts and their achievements.

Through these efforts, we will strive to **realize happiness for everyone**, thus deepening engagement.



Action Plan for Realizing the Vision for Human Capital Strategy

In order to realize the vision embodied in our human capital strategy, we have formulated a specific action plan corresponding to eight categories: Recruitment, training, diversity, work-life balance, personnel system, evaluations, remuneration, and deployment and career development (see table below).

Firstly, to develop an environment that supports every effort, we will clarify the requirements for priority human capital in connection with the new Medium-Term Business Plan, and promote recruitment in line with them. We will also improve the company-wide education and training system, enhance training for managers, and develop and implement tools for systematic on-the-job training (OJT). Furthermore, we will clarify our vision of diversity and inclusion, establish a working group (WG) to identify issues and promote measures, and strengthen the promotion of women’s active participation in the workplace. At the same time, we will promote measures to improve work-life balance (WLB) according to the circumstances of each department/division, such as by encouraging employees to take leave.

As an action plan to create mechanisms that provide a sense of accomplishment in accordance with achievement, we will review our personnel treatment system, including the expansion of the specialist system and the realization of diverse work styles. We will also review the evaluation system to further improve fairness and acceptability. Furthermore, we will revise the remuneration system to emphasize job responsibilities and contributions, and review various benefits to improve job satisfaction. At the same time, through the expansion of career development support measures, we will create an environment where diverse human resources can work in a sustainable manner.

By promoting the action plan in a comprehensive manner, we will improve happiness and engagement of all employees, including priority human capital.

Vision for the human capital strategy		Category	Action plan
Realize happiness for everyone	● Improve engagement and realize happiness for everyone	—	● Implement the action plan to improve employee engagement
Develop an environment that supports every effort	● Create mechanisms for recruiting and training human resources who have dreams and strive to achieve them	Recruitment	● Specify requirements for priority human capital and develop recruitment and staffing plans for each department/division ● Upgrade recruitment activities for systematic and efficient selection of core human capital from both new graduates and experienced professionals
		Training	● Improve the company-wide education and training system, and enhance development programs for each position (managers, manager candidates, etc.) ● Modify OJT planning formats to help advance the OJT system
	● Promote diversity to enable diverse human resources to strive to make the most of their strengths	D&I	● Prepare diversity and inclusion (D&I) implementation plans by clarifying the policy and vision, and put them into practice ● Set up a diversity promotion working group, create a vision, and promote women's active participation
		WLB	● Identify issues around work-life balance (WLB), formulate measures to resolve essential issues and implement them ● Develop a health and productivity management promotion system and obtain accreditation under the Certified Health & Productivity Management Outstanding Organizations recognition program
Create mechanisms that provide a sense of accomplishment in accordance with achievement	● Enhance the linkage between contributions and rewards so that employees can feel a sense of accomplishment	Personnel system	● Design the personnel system on the basis of rewards matching the role and performance results, eliminating the seniority idea, and encouraging active participation of diverse human resources ● Enhance the specialist system, realize diverse work styles, and revise the current personnel organization incorporating region-specific systems and corresponding to life events
		Evaluation	● Introduce systems encouraging proactive challenges and developing the professional ability to fulfill the necessary responsibilities ● Review the evaluation system to improve fairness and persuasiveness, and implement feedback interviews with every employee
	● Establish a personnel system that evaluates efforts to tackle challenges	Remuneration	● Revise the system to one that is more clear-cut with remuneration based on job responsibilities and actual contribution ● Set wages in line with job characteristics and revise allowances to increase job satisfaction
		Deployment and career development	● Visualize career paths and clarify career vision through development of career maps ● Enhance career development support, including introduction of career training and an internal recruitment system
	● Support career development and facilitate continuous efforts and achievements		



Promotion of Work-Life Balance

Kumiai has positioned promotion of work-life balance (WLB) as materiality, and is promoting initiatives to create a comfortable working environment and achieve health and productivity management.

In order to create a comfortable working environment, we have introduced a staggered working hour system and a teleworking system to facilitate employees' WLB. We are developing an environment in which diverse human resources can fully demonstrate their abilities with peace of mind.

As a result of these initiatives, the average monthly hours of overtime work were 13.6 hours (FY2023), and the average rate of employees taking annual paid leave was 60.4% (FY2023).

Going forward, we will not only work to reduce the average

monthly hours of overtime work and increase the average rate of employees taking annual paid leave but also aim to increase the rate of male employees who take childcare leave and obtain "Kurumin" certification. We will continue our efforts to further improve WLB by engaging in detailed improvement activities not only company-wide but also at the departmental level.

With regard to the achievement of health and productivity management, we are promoting initiatives based on our belief that employees' healthy lives are the foundation of sound corporate growth. We aim to be recognized as a Certified Health & Productivity Management Outstanding Organization by promoting various improvements.

Category	KPIs	FY2022 results	FY2023 results	FY2026 targets
Work-life balance	Average monthly hours of overtime work	13.8 hours	13.6 hours	Less than 10 hours
	Average rate of employees taking annual paid leave	60.6%	60.4%	70.0%
	Rate of male employees who take childcare leave	24.1%	62.5%	100.0%
	Gain Kurumin certification	—	—	Certified
	Be recognized as a Certified Health & Productivity Management Outstanding Organization	—	—	Certified
	Job turnover	2.9%	2.9%	—

Note: KUMIAI CHEMICAL INDUSTRY

Promoting Diversity and Inclusion

Kumiai has positioned promotion of diversity and inclusion (D&I) as materiality and is pursuing initiatives to create a working environment where everyone can work comfortably and play an active role and promote active participation of women.

With regard to creation of a working environment where everyone can work comfortably and play an active role, we are formulating a D&I promotion plan incorporating D&I training, D&I surveys, and establishment of a working group (WG) and deliberation by the WG, in order to reflect the real voices of employees. WG members will be recruited from across the Company to encourage the

participation of diverse employees who are motivated to promote D&I.

With regard to promotion of active participation of women, we will formulate a plan for recruitment, promotion, and training to achieve a female manager ratio of 8.2% in FY2030. Specifically, while maintaining the ratio of female hires to new graduate hires (31.3% in FY2022), we will formulate development plans for managerial candidates in line with their individual abilities and motivation, and encourage their development with a view to promotion to managerial positions.

Category	KPIs		FY2022 results	FY2023 results	FY2026 targets
Diversity and inclusion	Ratio of female hires to new graduate hires		31.3%	25.0%	30.0%
	Percentage of female managers (Section Manager or higher)		1.6%	2.3%	4.9%
	Percentage of female employees (based on the securities report)		16.8%	17.3%	19.0%
	Wage differential	All workers	72.5%	72.9%	—
	between men and	of which regular employees	80.5%	80.1%	—
	women*	of which non-regular employees	62.5%	82.9%	—

Note: KUMIAI CHEMICAL INDUSTRY

\*Reason for the wage differential between men and women There are no gender differences in the personnel treatment system. The high percentage of male employees in the higher ranks, including managers, and the difference in working hours (men work more overtime hours, while women have a higher utilization rate of shorter working hours) are factors contributing to the wage gap between men and women.

Human Capital Development

In the human capital strategy, Kumiai has identified human resources with the skills and mindset required to promote our future business strategies as priority human capital and is fostering them.

At the same time, we are providing training for all departments according to the year when an employee joins Kumiai, 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. For example, in research and development departments, efforts are also made to foster researchers through joint research that involves their dispatch

to other research institutes (such as the National Institute of Advanced Industrial Science and Technology). As a result of these efforts, employee training expenses totaled 42 million yen in FY2023 and the number of hours of training received per employee totaled 24.6 hours in FY2023.

We will continue initiatives to further strengthen human capital development. For example, we intend to establish a company-wide education and training system by adding OJT and self-development perspectives to the various training programs we currently offer. We will also step up investment in various aspects of human capital. This will include strengthening training for managers, who are the core of organizational management; enhancing training for

manager candidates; providing thorough training for personnel evaluators to realize fair evaluation; introducing career training to cultivate an approach to work attuned to the 100-year life era;

implementing company-wide training to promote D&I; introducing e-learning for the prevention of harassment; and upgrading operation of OJT.

Category	KPIs	FY2022 results	FY2023 results	FY2026 targets
Training	Number of hours of training received (overall)	12.8 hours	24.6 hours	25.0 hours
	Employee training expenses	27 million yen	42 million yen	50 million yen
	Percentage of employees receiving training (basic human rights training/employee coverage)	—	99.6%	100%

Note: KUMIAI CHEMICAL INDUSTRY

Promotion of Industrial Health and Safety

The conception of health and safety as something that does not contribute to profit but is viewed as a cost has become obsolete. Today, health and safety is generally viewed as an investment that leads to enhancement of corporate value and long-term profitability. Kumiai also considers promotion of health and safety to be an important priority in corporate management and has identified it as materiality. We conduct health and safety activities in two main ways, one led by sites nd the other by Head Office. At each office, the Health & Safety Committee takes the lead to implement various measures. The Head Office is involved in activities to raise

awareness of health and safety at Kumiai through connections with external organizations and experts, such as participation in the Occupational Safety and Health Subcommittee of the Japan Chemical Industry Association and the Chemical Protective Glove Research Group, contracts with industrial health and safety consultants, and joint research on psychological safety with a university professor. In this way, we are promoting company-wide health and safety activities through collaboration inside and outside Kumiai.

Health and Safety Management System

At Kumiai, a General Health and Safety Manager is appointed and a Health & Safety Committee (Health & Safety Meeting for branches with 50 or fewer employees) is established at each office for increasing employee awareness of health and safety, reflecting feedback from employees, and promoting activities to improve occupational accident prevention measures and promote health. The Responsible Care Promotion Section of the Head Office will initiate the following to support the activities of each office.

- Change and unify the format of the annual health and safety plan table to facilitate visualization of the progress and achievements and review of health and safety activities.
- Utilize in-house groupware to share information on Health & Safety Committee reports at each office.

Initiatives for Preventing Occupational Accidents

Reports on the status of accidents and measures for preventing recurrence are created and managed.

Number of Occupational Accidents (New)

FY	Commuting accident	Work accident	Total	Accidents requiring time off from work
2020	4	8	12	1
2021	5	5	10	0
2022	4	15	19	1
2023	1	6	7	1
Total	14	34	48	3

Note: Direct employees of KUMIAI CHEMICAL INDUSTRY

Examples of New Health and Safety Initiatives

As part of the factories' health and safety initiatives, a joint research project with Masayoshi Shigemori \*1, a professor of psychology, was launched at the Shizuoka Factory in 2019. Since 2022, training on the theme of psychological safety\*2 has been conducted.

- Implement psychological safety improvement programs for team leaders (Section Managers, foremen) to enhance psychological safety of teams
- Share the goal: Consider the “mission” (the purpose of the Shizuoka Factory), “vision” (the ideal Shizuoka Factory), and “values” (the values of the Shizuoka Factory and the attributes it requires to realize the vision) as the factory philosophy corresponding to Kumiai’s corporate philosophy and have the same orientation
- Identify differences in how team leaders and team members experience psychological safety
- Establish survey items for group-specific psychological safety and measure psychological safety by means of a questionnaire survey incorporating those items

To ensure safe and efficient factory production, both technical and non-technical operations must be promoted simultaneously. Psychological safety is an attribute of a team that a leader must foster in order to create an environment where everyone in the team feels it is safe to speak up without interpersonal risk on non-technical aspects.

\*1 Professor at Department of Contemporary Communication , Shizuoka Eiwa Gakuin University Junior College ; author of *Psychology of Human Error Prevention* (JUSE Press, Ltd. )

\*2 Reference: Edmondson, A.C., *The Fearless Organization*

Mitigation of Climate Change and Environmental Impact

Having set mitigation of climate change and environmental impact, contribution to biodiversity, and contribution to a recycling-based society as materialities, Kumiai Group aims to help protect the global environment and realize a low-carbon society by fully utilizing its 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, MIDORI formulated by the Ministry of Agriculture, Forestry and Fisheries.

Director, Senior Managing Executive Officer YOSHIMURA Takumi



Initiatives for Strategy for Sustainable Food Systems, MIDORI

The Strategy for Sustainable Food Systems, MIDORI, formulated by the Ministry of Agriculture, Forestry and Fisheries in 2021 aims to achieve improved productivity in the food industry, agriculture, forestry, and fisheries as well as sustainability through reduced environmental impact. Its vision to be achieved by 2050 includes reduction in risk-weighted use of chemical pesticides and increase in organic farming.

Through technological innovation, Kumiai has contributed to reducing environmental impacts and improving safety. For example, the amount of herbicide applied for paddy rice was reduced from 3 kilograms per 10 ares to 250 grams. In order to reduce the environmental impacts and save labor for growers through higher

performance and improved functionality, we are continuing our research to create safe and secure agricultural chemicals, and are accelerating our research and development of microbial pesticides and biostimulants. In addition, a project is underway to commercialize technology for controlling emissions of greenhouse gases from farmland.

We also developed and launched MAMETSUBU® as an input for contributing to smart agriculture. MAMETSUBU® is compatible with different application methods such 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.

Contribution to Biodiversity

Kumiai Group’s corporate philosophy ’s overriding theme is “Protecting and fostering life and nature,” and the conservation of biodiversity is an important management issue closely related to the Agricultural Chemicals and Agriculture-Related Business. As a chemical manufacturer, we manage water resources and waste

appropriately and conduct business activities while taking steps to ensure we do not negatively impact biodiversity. Moreover, we are actively engaged in “nature positive” activities that will positively impact biodiversity.

Participation in the 30by30 Alliance to Conserve Biodiversity

30by30 is an initiative led by the Ministry of the Environment to effectively conserve at least 30% of the land and sea as healthy ecosystems by 2030, thereby achieving the goals of halting biodiversity loss and restoring biodiversity. In December 2023, Kumiai joined the 30by30 Alliance, eager to contribute to the conservation of biodiversity in support of its goals.

Based on the concept of refugia, that is, places where relict populations of species are able to exist, thus avoiding extinction, as certain species did during the Ice Age for example, Kumiai has established a nature reserve in the town of Fukushima, Hokkaido, and will create another nature reserve in Kikugawa City, Shizuoka Prefecture, to conserve the biodiversity and rich natural environments of those regions.

1. Environmental Conservation Activities in Kumika Refugia in Fukushima

In 1974, Kumiai purchased approximately 640 hectares of forest in the town of Fukushima, Hokkaido, and has been involved in maintaining and managing the forest. Proper management of forests maintains a rich ecosystem, including for organisms unique to the region (plants, mammals, birds, amphibians, insects, etc.).

As a measure to make effective use of wood thinned from the forests, Kumiai produces wooden pallets for transportation and uses them for Kumiai products, thereby reducing CO<sub>2</sub> emissions and the workload of workers. In satochi-satoyama areas adjacent to forested mountains, labor-saving weed control is implemented using Kumiai Group’s herbicide for suppression of weed growth SHORTKEEP to maintain the landscape and discouraging bears from entering populated areas.

2. Environmental Conservation Activities in Kumika Refugia in Kikugawa

Formation of a 3,030-square-meter biotope will be completed in 2025 on land adjacent to Kumiai’s Life Science Research Institute in Kikugawa City, Shizuoka Prefecture, recreating a satoyama landscape in an urbanized area. The biotope will feature streams, wetlands, ponds, grasslands, and wooded areas and we will protect the rare creatures that inhabit the area (fireflies, Japanese pond turtles, etc.), thereby contributing to the conservation of biodiversity. The biotope will also be a venue for local children to learn about biodiversity and environmental conservation.



Contribution to a Recycling-Based Society

Basic Policy and Approach

Kumiai has established an environmental management system in accordance with ISO14001. Our environmental policy is to “reduce industrial waste and improve recycling rates” and “promote energy conservation and reduce emissions of greenhouse gases.” Having launched the ESG Project in December 2021, whose aim is to create clean factories, we have been working to contribute to a recycling-based society.

- ④ Paperless operation by eliminating the use of hard copy of performance charts, etc.
- ⑤ Reuse of emitted energy
- ⑥ Recycling of solvents used
- ⑦ Recovery of valuable materials from wastewater

Examples of Initiatives

At the Shizuoka Factory, wastewater discharged from each plant is properly treated in in-house wastewater facilities before being discharged from the factory. The factory also uses a microorganism-based wastewater purification method to treat waste without the use of fossil fuels. For these purposes, the factory has formed a specialized treatment department for environmental protection, separate from the manufacturing plant. At the Tatsuno Factory, the fuel for a new plant that has started operation is carbon-neutral city gas, not conventional heavy oil A. We are also working to reduce waste by reusing or substituting manufacturing equipment cleaning materials.

Targets

In order to realize clean factories, Kumiai targets the following items.

- ① Reduction of energy use
- ② Decarbonization of energy use
- ③ Change of materials used for containers for raw materials and packaging for inter-factory transfer, recycling of containers and packaging

Greenhouse Gas (GHG) Emissions and Environmental Data

		GHG emissions (t-CO <sub>2</sub> /year)			
		FY2020	FY2021	FY2022	FY2023
Scope 1	Direct emissions by the reporting company	46,718	47,702	47,982	44,182
Scope 2	Indirect emissions from the use of electricity, heat, and steam provided by other companies	17,307	17,459	18,142	13,997
Scope 1+2	Total emissions	64,024	65,162	66,124	58,178
	Emissions per net sales unit (t-CO <sub>2</sub> /millions of yen)	0.644	0.605	0.503	0.397
Scope 3 category	1. Purchased goods and services	—	—	189,859	195,898
	2. Capital goods	—	—	27,470	24,880
	3. Fuel- and energy-related activities not included in Scope 1 and 2	—	—	12,171	11,461
	4. Upstream transportation and distribution	—	—	11,715	8,867
	5. Waste generated in operations	—	—	7,676	10,902
	6. Business travel	—	—	221	220
	7. Employee commuting	—	—	1,003	1,007
	8. Upstream leased asset	—	—	0	0
	9. Downstream transportation and distribution	—	—	769	590
	10. Processing of sold products	—	—	0	0
	11. Use of sold products	—	—	0	0
	12. End-of-life treatment of sold products	—	—	3,729	3,636
	13. Downstream leased assets	—	—	66	66
	14. Franchises	—	—	0	0
	15. Investments	—	—	0	0
Total emissions		—	—	254,680	257,526

	Unit	FY2020	FY2021	FY2022	FY2023
Energy consumption (crude oil equivalent)	kL	32,899	33,559	33,199	31,554
Amount of purchased electricity	MWh	56,317	57,016	55,992	55,729
Amount of renewable energy	MWh	12,544	12,635	12,420	25,184
Water intake amount	Thousand m <sup>3</sup>	—	—	4,187	3,835
Amount of industrial waste	Thousand tons	—	—	8,653	11,124

\*Targets include seven Group companies, which are, KUMIAI CHEMICAL INDUSTRY, RIKENGREEN, IHARANIKKEI CHEMICAL INDUSTRY, K-I CHEMICAL INDUSTRY, Ihara Construction Industry, ONOMICHI KUMIKA INDUSTRY, and KUMIKA LOGISTICS. The ratio of the seven companies’ net sales to consolidated net sales (coverage rate) is 91.1% (FY2023).



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 impacts on agricultural production in extreme weather conditions.

Kumiai Group has positioned mitigation of climate change and environmental impacts as one of its materialities and expressed its endorsement of the Task Force on Climate-related Financial Disclosure (TCFD) recommendations for climate change mitigation and adaptation. We will promote information disclosure based on TCFD recommendations and climate change initiatives such as GHG emissions reduction.

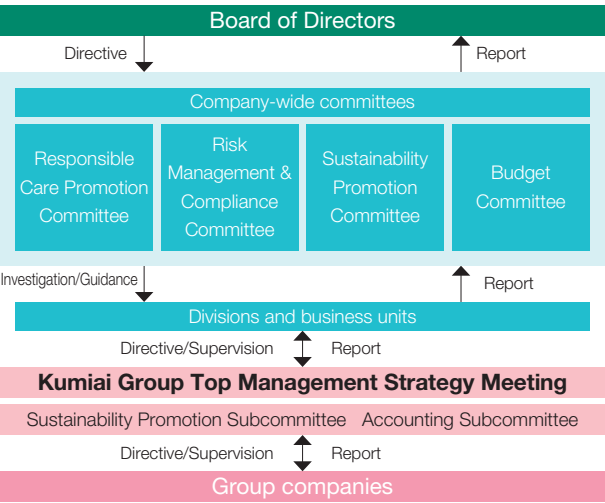


Governance and Risk Management

The Sustainability Promotion Committee chaired by the Representative Director, President, formulates strategies on ESG issues, such as “mitigation of climate change and environmental impact” and “human capital development / human capital strategy based on the idea of human capital,” manages the progress of the action plan for each issue, and also formulates information disclosure strategies. Important matters discussed by the Sustainability Promotion Committee are reported to the Board of Directors for decision-making and oversight.

For risk management, we identify risks and opportunities recognized by Kumiai’s divisions, and also identify issues by referring to the recommendations of external organizations such as TCFD, as well as climate-related risks and opportunities recognized by other companies in the same industry. The degree of importance of each issue identified is determined by conducting impact assessments, taking into account the financial impact. Risk issues identified are discussed once a year by the Risk Management & Compliance Committee, a company-wide committee, and measures to address the issues are determined.

Sustainability Promotion System

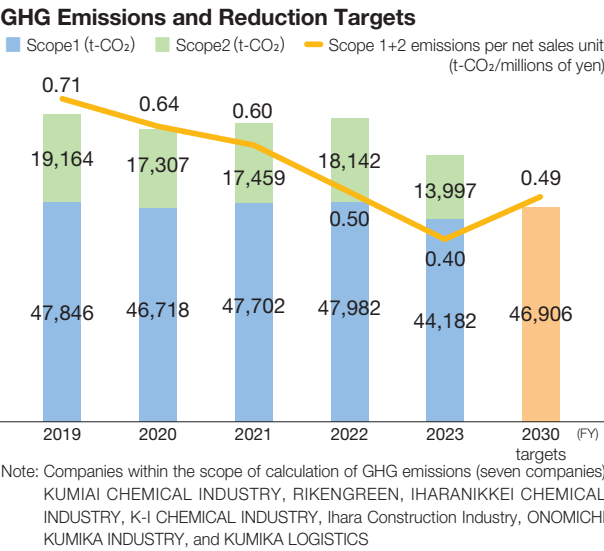


Indicators and Targets

Kumiai Group set FY2019 as the reference year, and set reducing Scope 1 and 2 GHG emissions by 30% compared to FY2019 by FY2030 as our target. (Seven key Kumiai Group companies are within the scope.)

As a specific initiative, in FY2023, we introduced CO<sub>2</sub>-free electricity at factories and research institutes step by step. By promoting fuel conversion from heavy oil to fuels with lower GHG emissions, we are continuing to reduce GHG emissions from our business activities.

Regarding the progress to date toward achieving the reduction targets, we believe that Kumiai Group is making good progress in reducing GHG emissions, because net sales for FY2023 increased by approximately 5% compared to FY2019, but our GHG emissions decreased by approximately 13% compared to FY2019. Through continuous efforts to reduce environmental impacts, we will strive to achieve the targets and disclose related information.



Strategy

Kumiai Group will continue its efforts to mitigate and adapt to climate change, including through the ongoing reduction of GHG emissions.

We conduct scenario analysis to identify the Kumiai Group’s risks and opportunities with respect to climate change. Through scenario analysis, we have set the “safe, secure, and prosperous society” scenario (called the 1.5°C scenario) that we aim to achieve and the “unsustainable society” scenario (called the 4°C scenario) where social issues such as climate change worsen, and have evaluated the impacts of risks and opportunities on 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 Representative Director, President, then discuss climate change risks and opportunities.

Scenario	Overview	Reference scenario
“Safe, secure, and prosperous 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.	“RCP8.5” by the United Nations Intergovernmental Panel on Climate Change (IPCC), etc.

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

\*The “impact” is the financial impact on profit and expenses of an eventuality, and is evaluated based on the following criteria: “Large”: more than three billion yen, “Medium”: one to three billion yen, and “Small”: less than one billion yen.

Corporate Governance

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.” Based on this corporate philosophy, Kumiai is endeavoring to develop and provide products that meet the needs of its customers and earn their trust.

In addition to establishing a system that will allow us to swiftly adapt to changes in the management environment, Kumiai Group places 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, as stated in the management vision, we “always strive for harmony with all stakeholders through transparent corporate activities.” In the Kumiai Chemical Code of Conduct, we define the actions that each of us 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 imbued with respect for the interests of stakeholders.

**System to Ensure the Appropriateness of Business Operations and the Status of Operation of Such System**

Based on the corporate philosophy and the Kumiai Chemical Group Basic Policy on Sustainability, we are committed to practicing sustainability management. In order to achieve this, we recognize the importance of establishing a system that can promptly respond to changes in the business environment, and at the same time, we endeavor to design and enhance the management control system of the corporate group consisting of Kumiai and its subsidiaries in order to ensure compliance with laws, regulations, and ethics and further increase management transparency.

For an overview of the status of the design and operation of the internal control system, please refer to pages 1 to 5 of the “75th Annual General Meeting of Shareholders: Other Matters Provided Electronically.” (<https://ir.kumiai-chem.co.jp/ja/stock/meeting.html>) (in Japanese)

**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 Audit & Supervisory Board Member) attend the Board of Directors, the Management Meetings, Executive Meetings, and other important internal 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 the decisions made.

Board of Directors

The Board of Directors is chaired by the Representative Director, President, and is comprised of nine Directors (including three Outside Directors), and meetings are generally held once a month where important management matters are determined, and business execution is supervised. Outside Audit & Supervisory Board Members also attend Board of Directors meetings from the viewpoint of strengthening management check functions, and they express their opinions as needed.

The Nomination and Remuneration Committee is placed under the Board of Directors to strengthen the independence, objectivity, and accountability of Board of Directors functions in regard to nomination and remuneration of Directors.

Management Meetings

Management Meetings are chaired by the Representative Director, President, and are attended by full-time Directors and 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

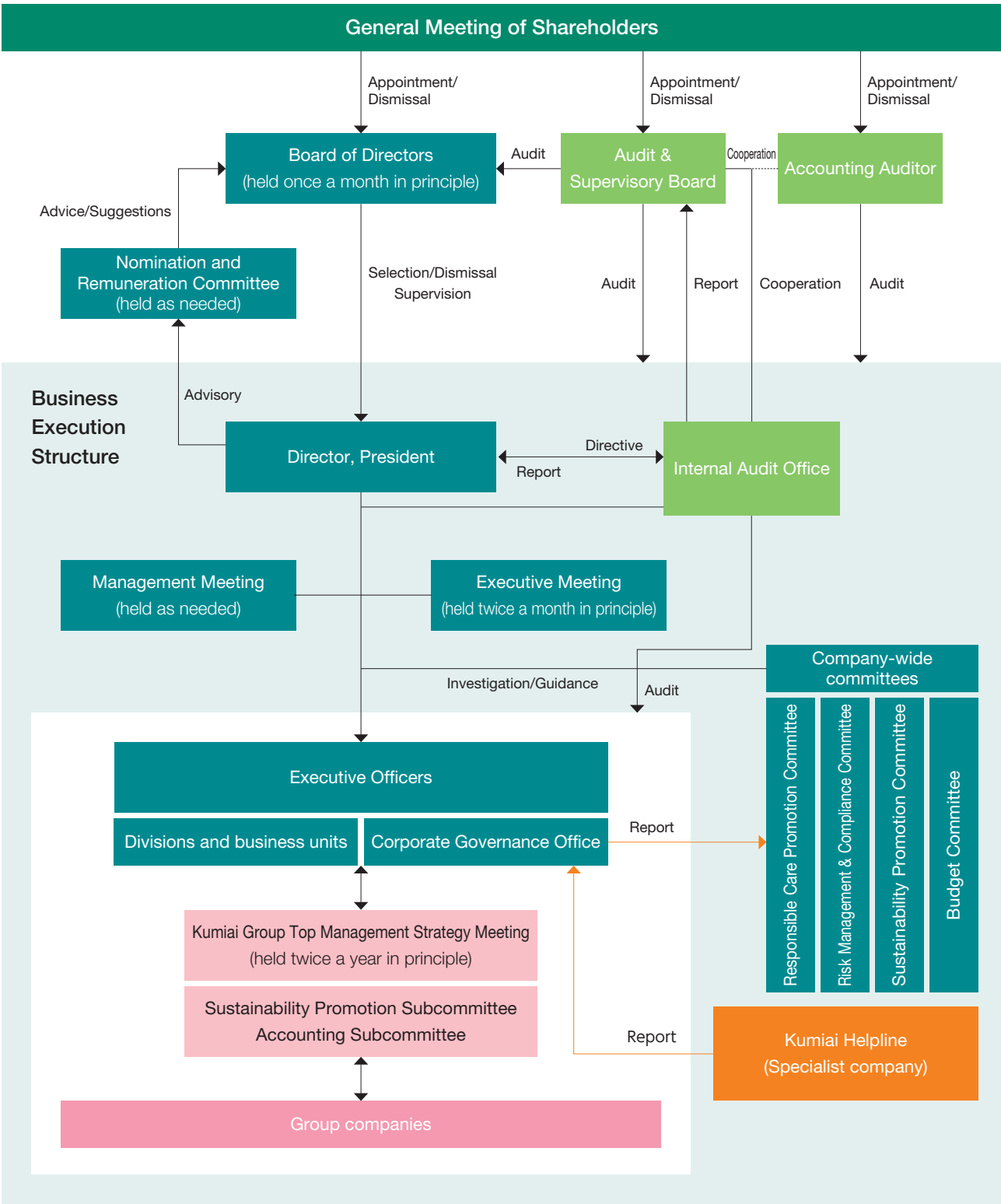
Executive Meetings are chaired by the Representative Director, President, and are attended by full-time Directors and Executive Officers. In principle, these are held twice a month for making decisions related to business operations. A full-time Audit & Supervisory Board Member also attends these meetings and the Corporate Advisor of Kumiai, President of RIKENGREEN CO., LTD., President of K-I CHEMICAL INDUSTRY CO., LTD., and President of K-I CHEMICAL U.S.A. INC. attend these meetings as observers.

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 (all of whom are Outside 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.

In addition, we have established the Budget Committee, Sustainability Promotion Committee, Risk Management & Compliance Committee, and Responsible Care Promotion Committee, which are responsible for corporate governance. All these committees are chaired by the Representative Director, President, and are comprised of full-time Directors, a full-time Audit & Supervisory Board Member, Executive Officers, and department

heads, and their meetings are held at least once a year and additionally as needed. Also, the Kumiai Group Top Management Strategy Meeting, which is comprised of Kumiai’s full-time Directors, a full-time Audit & Supervisory Board Member, and heads of divisions as well as Group companies’ presidents and directors responsible for administration, is held twice a year.





Executives (as of January 26, 2024)

Directors



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)



Director, Senior Managing Executive Officer  
YOSHIMURA Takumi

April 1981 Joined K-I CHEMICAL RESEACH INSTITUTE CO., LTD.  
July 2008 Director of K-I CHEMICAL RESEACH 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)



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)

Directors



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  
November 2014 Senior Managing Director 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  
January 2016 Director of the Company (Current)  
April 2023 Professor Emeritus of Hosei University (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 sekiju hanbai k.k  
January 2023 Director of the Company (Current)  
March 2023 Managing Director, Shizuoka Shell sekiju hanbai k.k (Current)

Audit & Supervisory Board Members



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)  
June 2022 Auditor of Katakura & Co-op Agri Corporation (Current)  
January 2023 Audit & Supervisory Board Member of the Company (Current)  
June 2023 Auditor of ZM Crop Protection Corporation (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  
June 2016 Senior Executive Vice President of ZENKYOREN  
June 2017 President of The Kyoel Fire and Marine Insurance Company, Limited ("Kyoekasai")  
January 2021 Audit & Supervisory Board Member of the Company (Current)  
June 2021 Executive Advisor of Kyoekasai (Current)



Outside Audit & Supervisory Board Member  
SHIRATORI Miwako

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

Executive Officers

Managing Executive Officer  
URUSHIBATA Ikumi

Executive Officer  
IKEUCHI Toshihiro

Managing Executive Officer  
IWATA Kouichi

Executive Officer  
NAKANO Yuki

Managing Executive Officer  
NIIGAWA Kazuya

Executive Officer  
YANO Hiroyuki

Managing Executive Officer  
KATAGIRI Sadamitsu

Executive Officer  
KONAGAI Kiyoshi

Executive Officer  
INOUE Jun

Executive Officer  
KAWASHIMA Takahiro

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 2023, we contracted an outside consultancy to conduct a survey for all Directors and Audit & Supervisory Board Members. Results were 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 5, 2023 to review the results of the survey and to discuss issues and response measures.

Survey Items

The survey contained a total of 29 questions sorted into the following five main categories: ❶ Composition and operation of directors, ❷ Management strategies and business strategies, ❸ Corporate ethics and risk management, ❹ Performance monitoring, and management evaluation and remunerations, and ❺ Dialog with shareholders.

Evaluation

According to the results of the effectiveness evaluation for FY2023, it was confirmed that the Board of Directors is effective as a whole. In particular, deliberations at the Board of Directors were highly evaluated, and several opinions were confirmed that evaluated the current status of other matters as well. Matters pointed out as issues included clarification of specific targets for capital costs, training of female executives, the corporate culture reform involving younger employees and mid-career hires, and embracing of diverse opinions. We will strive to further improve the effectiveness of the Board of Directors by linking the results of the evaluation to in-depth discussions at Board of Directors meetings.

Remuneration 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 remuneration for individual Directors. Remuneration 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 72nd Annual 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, President, 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.

The Nomination and Remuneration Committee met twice during FY2023. Specific matters discussed included the content of proposals for the revision of Directors’ remuneration to be submitted to the Board of Directors, using the business results of the previous fiscal year as the main indicator, and the content of proposals to be submitted to the Board of Directors based on information regarding the careers and qualifications of the Director candidates.

Message from Outside Directors



As an Outside Director, I emphasize transparency and sustainability and strive to provide constructive recommendations to management. Kumiai is characterized by its technological capabilities and market insight, and in particular, the field crop herbicide AXEEV®, a world-class product, remains our mainstay product.

Considering the global demographic and food situations, AXEEV® can continue to drive Kumiai’s growth through countermeasures for generic products and the pricing strategy. However, from a long-term perspective, while this is a great strength, it can also be a weakness. Based on this shared recognition, Kumiai invested approximately 10 billion yen to strengthen R&D capabilities and established a new Chemical Research Institute, which began operation in October 2023. We have also formulated a new human capital strategy to secure and strengthen the training of excellent researchers. Regarding the growth strategy, the prerequisite is to achieve significant growth as an agrochemical manufacturer. I would also like Kumiai Group to address a wide range of peripheral business fields and grow as a group engaged in comprehensive agricultural business.

Outside Director NISHIO Tadahisa

As a person with expertise concerning agricultural, food, and environmental issues in Japan and around the world, I engage in my duties with the intention of contributing to Kumiai’s governance from a broad perspective. In particular, I have closely monitored the progress of sustainability management, which has been promoted since the previous Medium-Term Business Plan, and gave a lecture at Kumiai on how sustainability management requires individual employees to change their behavior. I have always believed that Kumiai’s greatest strength lies in its R&D capabilities. Therefore, I visit the new Chemical Research Institute and other labs to interact with researchers. I recognize that the biggest challenge we face is to make breakthroughs beyond the success of AXEEV®. Going forward, I would like to objectively evaluate whether the social and physical environment at R&D sites is conducive to making the most of human capital and fostering serendipity, and offer advice so as to contribute to the further development of Kumiai.

Outside Director IKEDA Kanji



Skills Matrix: Skills, Roles, Expertise and Experience Expected by the Board of Directors Expected items : ●

		Corporate management	ESG / Sustainability	Legal affairs / Compliance / Risk management	Financial strategy / Capital strategy	Global experience	R&D / Technologies
Directors	TAKAGI Makoto	●	●	●	●		
	UCHIDOI Toshiharu			●		●	●
	YOSHIMURA Takumi		●	●			●
	OKAWA Tetsuo	●	●				●
	IKAWA Teruhiko		●			●	●
	YOKOYAMA Masaru		●		●	●	
	NISHIO Tadahisa	●			●	●	
	IKEDA Kanji		●	●		●	
	YAMANASHI Chisato	●	●	●			
Audit & Supervisory Board Members	TANEDA Kohei	●		●	●		
	YAMADA Masakazu		●		●		●
	SUKEGAWA Ryuji	●		●	●		
	SHIRATORI Miwako		●	●	●		



In the consolidated financial results for FY2023, Kumiai recorded its highest net sales ever. While promoting development of new promising products through “creative science,” which is our strength, we are always seeking new business development and are growing continuously through M&A and business matching to expand new sales channels.

At the Board of Directors, where opinions are exchanged freely and vigorously in the course of promoting new business strategies, I offer opinions on Kumiai’s potential from a neutral standpoint.

I expect Kumiai’s concept of viewing human resources as assets, as embodied in the slogan “Dreams and Triangle for Happiness” and highlighted by the launch of the new Chemical Research Institute ShIP, will lead to the fostering of even more capable “human assets” in an environment equipped with cutting-edge research facilities.

In promoting sustainability management, I will offer opinions from various perspectives so that Kumiai can progress along a path that naturally leads to greater representation of women in management.

Outside Director YAMANASHI Chisato



Compliance

Basic Policy on Compliance

We established the Kumiai Chemical Group Basic Policy on Compliance based on the Kumiai Chemical Group Basic Policy on Sustainability. To ensure that every officer and employee acts in accordance with our corporate philosophy and Code of Conduct, we have established the Kumiai Chemical Ethical Standards, a set of guidelines for correct behavior, which are also included in the booklet and inculcated in Kumiai Group.

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 in the workplace

Being able to ask for help or advice without hesitation when you need it, sharing something you noticed with your supervisor or a senior worker, and speaking up whenever you feel that something is wrong in the workplace.
- 2 Considering your behavior from the perspective of the public as if it were broadcast 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.

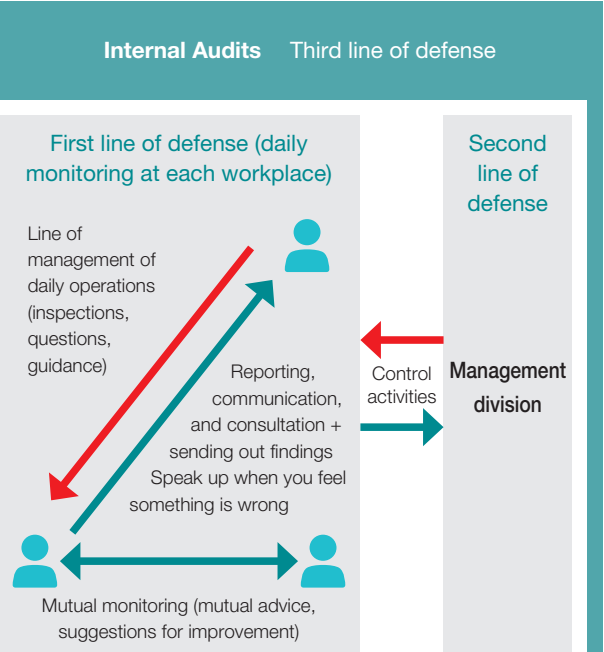
Based on these Three Fundamentals of Compliance, we will engage not only in defensive compliance, but proactive compliance as we endeavor to earn the trust of society and improve corporate value continuously.

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 departments on compliance and internal control.

Our routine monitoring includes (1) daily monitoring by supervisors, (2) cross-monitoring among colleagues in the workplace, and (3) sharing individual awareness with 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 the reporting line in the workplace or by using the internal reporting system. 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 as necessary to improve the effectiveness of internal control.



System

Kumiai has the Risk Management & Compliance Committee, which is chaired by the Representative Director, President, and comprises full-time Directors and Executive Officers and department heads. The committee meets once a year and additionally whenever necessary to deliberate on and approve the implementation plan of the compliance program formulated by each department. The situation of implementation and the results are reported at the committee. Furthermore, the overview of internal reporting, results of a compliance awareness survey, and compliance promotion activities are reported, and corrective measures are discussed.

Internal Reporting System

Kumiai has established an internal consultation desk. Moreover, Kumiai Group has established the Kumiai Chemical Group external consultation desk (compliance and harassment) whose operation is contracted to a specialist company. The external consultation desk also serves as the contact point for internal whistleblowing\* under the Whistleblower Protection Act, and appropriately responds to cases of whistleblowing. Having established the internal regulations governing use of the internal reporting system, a system is in place to ensure protection of whistleblowers.

The Corporate Governance Office serves as the contact point for the internal reporting system and Audit & Supervisory Board Members receive information provided through the internal reporting system.

The number of reports to the internal reporting system during FY2023 was 13 for Kumiai Group (6 for Kumiai), and there was no case of whistleblowing.

To promote the use of the internal reporting system and raise awareness of its proper use, we have posted FAQ on how to use the external consultation desk, prepared and displayed posters, and include the contact information of the external consultation desk in the monthly compliance newsletter.

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

Compliance Awareness Survey

Kumiai Group conducts a periodic compliance awareness survey covering all employees. The FY2023 survey confirmed that the overall level of employee awareness remains very high. On the other hand, generational differences in awareness regarding harassment and lack of communication in the workplace were identified as issues.

Compliance Education

We produced a booklet, "Introduction to CSR for Business persons," and distributed it to all officers and employees of Kumiai Group. Illustrated with cartoons, this booklet is designed to encourage the use of other booklets published so far (booklets on compliance, risk management, and sustainability), so as to raise the level of awareness throughout the Group and enhance corporate value.

We conducted e-learning training for all officers and employees in August 2023 (participation rate: 93%). The content was related to harassment-related communication, which was considered an issue based on the results of the compliance awareness survey.

Kumiai also conducted a face-to-face harassment seminar for officers and employees at Head Office and Tokyo Branch in October 2023 (participation rate: 92%). The content of the seminar was geared toward each level of employees, taking into consideration the cases of Kumiai Group's internal reporting and the results of the compliance awareness survey. Questionnaire surveys were conducted before and after the seminar to enhance effectiveness and identify issues. We will continue to implement similar initiatives throughout the Group in the future.

Distribution of a Compliance Newsletter

As part of our compliance promotion activities, we distribute the Kumiai Chemical Group Compliance Newsletter and Newsletter Plus to all officers and employees of Kumiai Group each month. Moreover, we distribute the Newsletter Plus extra edition from time to time. In FY2023, we provided an overview of the results of the compliance awareness survey and explained possible disciplinary actions in the event that the Kumiai Chemical Ethical Standards were not adhered to.

Furthermore, we distribute a monthly Kumiai Chemical Compliance E-mail Magazine to managerial personnel at Kumiai. Cases of fraud, noncompliance, and harassment that have attracted public attention are explained that are useful for compliance promotion activities in the workplace.



Booklets published so far (booklets on compliance, risk management, and sustainability)

	Unit	FY2020	FY2021	FY2022	FY2023
Number of reports and consultations made to the internal reporting system (Helpline)	Cases	10 (7)	11 (2)	13 (5)	13 (6)
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

Note: Kumiai Group (KUMIAI CHEMICAL INDUSTRY)

Human Rights

Respect for Human Rights

Considering that respecting human rights is the foundation of sustainability management, Kumiai Group has endorsed and respects the International Bill of Human Rights and the Declaration on Fundamental Principles and Rights at Work issued by the International Labour Organization (ILO) and has established the Kumiai Chemical Group Basic Policy on Human Rights. Moreover, we conduct human rights due diligence in accordance with the United Nations Guiding Principles on Business and Human Rights, and collaborate with all officers and employees of Kumiai Group and other stakeholders to promote respect for human rights.

Kumiai Group's Code of Conduct and Basic Policy on Human Rights state that Kumiai Group prohibits discrimination based on gender, age, nationality, race, ethnicity, religion, creed, culture, customs, lifestyle, values, educational background, social status, disability, or sexual orientation/gender identity in its business activities, and respects basic human rights.

Specific Initiatives concerning Respect for Human Rights: Indicators and Targets

Based on the Kumiai Chemical Group Basic Policy on Human Rights, Kumiai Group has established the Guidelines for Human Rights Due Diligence (human rights DD) to address human rights issues.

In 2023, based on the guidelines, from a wide range of human rights issues (risks) we identified those that could have a negative impact on Kumiai Group's business activities. We mapped the identified human rights issues (risks) onto the supply chain comprising Kumiai Group, suppliers, and other related parties to specifically identify how negative impacts may occur, and evaluated which of the three types of negative impacts may occur. Whereas downstream in the supply chain, risks that general agricultural chemical products may contribute to negative impacts were assumed, upstream in the supply chain, risks that Kumiai Group may contribute to negative impacts and risks that Kumiai Group's business, products, and services may be related to negative impacts were assumed. Consequently, recognizing that human rights DD initiatives upstream in the supply chain should be prioritized, we conducted a survey of our major suppliers. (The survey included not only human rights issues, but also employment, the environment, bribery, consumer interests, and disclosure.) As a result of the survey, no human rights risks that could have negative impacts on the supply chain were identified. We will continue to conduct human rights DD in consideration of the best implementation method and scope of coverage.

Kumiai Group conducts a periodic compliance awareness survey covering all employees. In addition to checking the level of understanding of human rights issues, we identify the actual status of harassment, such as abuse of authority and

sexual harassment, and the issues faced by each department or office, and promote awareness-raising activities. Moreover, the Kumiai Chemical Group external consultation desk has been established as an internal reporting system for early detection and early resolution of issues.

Participation in the United Nations Global Compact

In order to further enhance sustainability management, Kumiai has signed the United Nations Global Compact (UNGC) and registered as a participant as of September 18, 2023. The UNGC is a voluntary initiative in which companies and organizations participate in the creation of a global framework to achieve sustainable growth by acting as good corporate citizens, exercising responsible and creative leadership. Kumiai supports and practices the UNGC's Ten Principles, in the four areas of human rights, labor, environment, and anti-corruption, to realize a sustainable society as a global company.

Ten Principles of the United Nations Global Compact in Four Areas

Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and
	Principle 2	make sure that they are not complicit in human rights abuses.
Labor	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
	Principle 4	the elimination of all forms of forced and compulsory labor;
	Principle 5	the effective abolition of child labor; and
	Principle 6	the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges;
	Principle 8	undertake initiatives to promote greater environmental responsibility; and
	Principle 9	encourage the development and diffusion of environmentally-friendly technologies.
Anti-Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.



Initiatives for Responsible Care

Our Responsible Care activities are to protect the safety, health, and the environment of related people inside and outside Kumiai throughout all processes including research and development, production, sales, and use by customers through to disposal. Kumiai is implementing Responsible Care activities as part of sustainability management. In order to improve our activities, we are reviewing existing business systems and promoting new initiatives through working groups and cross-functional collaboration. Furthermore, Kumiai Group has established the Basic Policy on Responsible Care, and management is exercising leadership in promoting Responsible Care activities. We also share information with our seven Group companies that are engaged in the chemical business, to ensure safety, health, and protect the environment, and to make continuous improvements.



System for Promoting Responsible Care

The Responsible Care Promotion Committee, which is chaired by the Representative Director, 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 (seven companies))

Specific Initiatives concerning Responsible Care, Indicators, and Targets

Response to New Chemical Substance Regulations

In order to prevent occupational accidents caused by chemical substances, laws and regulations related to industrial health and safety were significantly revised in 2023 and 2024. Briefings were held at Kumiai's factories, research institutes, and Group companies to explain the changes in laws and regulations and the requirements to be complied with, and to provide employees with opportunities to deepen their understanding of the content of the revised laws and regulations. In addition, to promote protective countermeasures for percutaneous exposure to chemical substances, we joined the activities of the Chemical Protective Glove Research Group.

Safety Data Sheets (SDSs) on All Products Made Available

To ensure that our customers can use our products safely, we prepare SDSs for all our products and publish them on our website. New restrictions on chemical substance due to revisions of laws and regulations are expected to increase SDS-related operations. Therefore, we reviewed our SDS operations system and streamlined the entire process to create an environment that enables us to respond to changes in laws and regulations.

Responsible Care Internal Audit

Regarding industrial health and safety and the environment, the focus tends to be on factories and research institutes. However, in order to renew the recognition that Responsible Care activities are a company-wide initiative, we selected administrative departments at Head Office as the subjects of audit in FY2023, Kumiai's first Responsible Care internal audit. In the audit, activities concerning management systems were mainly reviewed. As a result, administrative departments gained a shared understanding. In the future, we will further expand the number of offices covered and the audit items.



Risk Management

We established the Kumiai Chemical Group Basic Policy on Risk Management based on the Kumiai Chemical Group Basic Policy on Sustainability. Kumiai Group believes that risk management is the key to internal control. In order to gain the trust of stakeholders, achieve continuous growth, and fulfill 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.

System

As well as promoting cultivation and penetration of a risk culture, Kumiai has established Management Risk Control Rules and Risk Management Rules and the Risk Management & Compliance Committee (comprising full-time Directors and Executive Officers and department heads) chaired by the Representative Director, President. The committee meets once a year and additionally whenever necessary and an appropriate management system for negative risks, including risk prevention measures and emergency situations, and positive risks based on opportunities is in place. In addition, the Risk Management & Compliance Committee clarifies negative and positive risks for risk management. To support appropriate risk-taking by management, the committee conducts periodic review of business risks and other risks and consolidates and shares risk information. With regard to operational risk and supply chain risk, we have established the Basic Policy on CSR procurement and accompanying CSR Procurement Guidelines. We are implementing measures based on this policy and guidelines and review the related risks annually.

Moreover, we have established an internal control system

that includes all Group companies. Furthermore, the internal audit division conducts audits of overall operations of Group companies, reviews and provides advice, and as part of the operational audit, monitors whether the internal control system is properly designed and effectively operated.

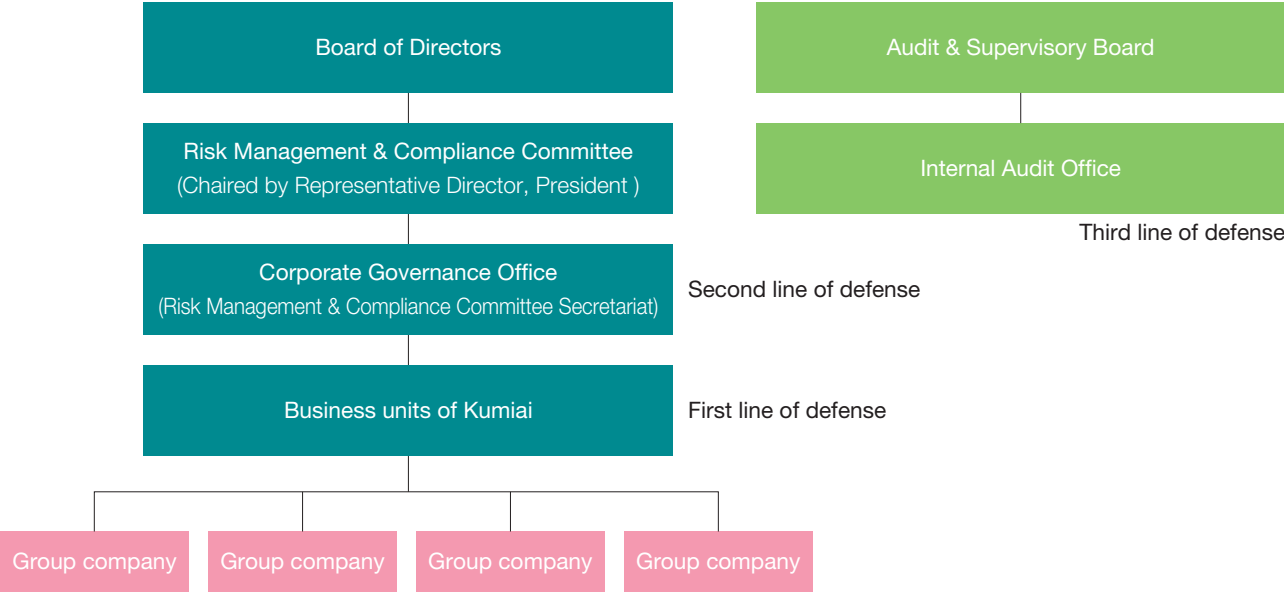
Information Security Risks and Countermeasures

In the course of its business activities, Kumiai Group strives to appropriately manage all personal information of customers, business partners, shareholders, officers and employees and confidential information related to research and development, production, etc. Moreover, considering information related to business activities to be an asset, we are continuously building and strengthening our information security system. However, in the event of an information security incident due to a cyberattack or other unforeseen circumstances beyond our expectations, or an information system shutdown or temporary disruption due to an earthquake or other natural disaster, Kumiai Group’s operating results and financial position may be affected by a loss of public trust in the Group, the filing of lawsuits, social sanctions, etc.

With the enactment and revision of personal information and data protection laws and tightening of application of such laws in various countries, any violation of laws in business operations may result in a loss of public trust, the inability to conduct business, or the imposition of large fines.

In response to such risks, Kumiai Group is promoting information security education to raise the awareness of each employee regarding information security and is strengthening the system to enable prompt responses in the event of various information security incidents.

Kumiai Chemical Group’s Risk Management System



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 timely response to tightening laws and regulations
		Outside Japan	Decrease in net sales due to changes in the agricultural chemical market (weather, grain prices, crop acreage, resistance development, competitive products, generic products, laws and regulations)	Early identification of changes in the market environment through cooperation with sales partners in each country and overseas subsidiaries and implementation of measures to maintain sales
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 to respond quickly to changing needs and stable procurement through procurement from multiple sources
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 grasping regulatory trends and market trends in each country, including revisions to laws, and responding to them
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 in laws and tightening of regulations in each country related to the handling of chemical substances	Collecting information on revisions of environment-related laws and regulations and responding to revisions, and making investments to prevent environmental accidents
6	Product quality		Problems with product quality due to unexpected quality issues, defects, incidents	Proper quality management based on ISO
7	Production and procurement of raw materials		Insufficient supply of raw materials, delays and suspension of manufacturing, and an increase in procurements costs due to trouble or incidents in procurement of raw materials, production facilities, laws and regulations in particular countries where operations are located, geopolitical risks, etc.	Ensuring inventory by ordering raw materials early, arranging substitutes, diversification of supply sources for important raw materials, and maintaining production functions through systematic renewal of facilities
8	Securing and training of human resources		Impact on operating results and financial position of inability to secure and train human resources as expected	Clarification of requirements for human capital, systematic and efficient acquisition of human capital, and enhancement of work-life balance
9	Impaired asset accounting application		Worsening financial situation due to impairment loss as the value of group business assets declines	Accurate understanding of the operating conditions of each Group company, and sharing of the progress of important projects and issues
10	Intellectual property		Decrease in net sales or leakage of technology and know-how due to infringement of Kumiai’s intellectual property Compensation for infringement of intellectual property rights of other companies Impact on sales and profit due to launch of generic products	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 Response to infringement of intellectual property rights, including legal action
11	Information security		System outages due to cyberattacks or other unintentional incidents, leakage of confidential information	Reinforcing information security education and developing a response system in the event of occurrence of an incident
12	Human rights		Decline in public trust or suspension of transactions in the event of a human rights issue occurring in Kumiai Group’s supply chain	Conducting a survey of major suppliers based on the guidelines
13	Climate change		Increase in costs for responding to stricter greenhouse gas (GHG) emission regulations, and decrease in agricultural land area and crop yields due to climate change	Identifying and responding to trends in laws and regulations in each country, making capital investment to reduce GHG emissions, developing products and technologies, and promoting information disclosure via TCFD and other frameworks
14	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 novel infection diseases	Regular drills, BCP updates, and implementation of preventive measures for facilities at each office

	(Unit)	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Operating Results											
Net sales*1	Millions of yen	55,360	61,124	62,549	77,817	96,846	103,400	107,280	118,176	145,302	161,002
Agricultural Chemicals and Agriculture-Related Business	Millions of yen	—	—	—	—	68,147	72,623	79,395	89,150	112,430	129,466
Fine Chemicals Business	Millions of yen	—	—	—	—	19,466	21,474	18,921	20,660	25,004	22,472
Other Businesses	Millions of yen	—	—	—	—	9,233	9,303	8,965	8,366	7,869	9,064
Operating income*1*2	Millions of yen	2,629	3,723	2,267	3,764	5,582	7,639	8,283	8,456	12,673	14,089
Agricultural Chemicals and Agriculture-Related Business	Millions of yen	—	—	—	—	4,992	6,778	8,014	8,349	13,065	14,805
Fine Chemicals Business	Millions of yen	—	—	—	—	1,249	1,476	985	888	900	528
Other Businesses	Millions of yen	—	—	—	—	599	829	831	868	637	848
Ordinary income	Millions of yen	4,290	8,064	4,478	7,441	8,074	9,735	9,916	12,829	23,570	24,115
Net income attributable to owners of parent	Millions of yen	3,051	6,563	3,423	7,252	4,706	6,789	6,618	9,023	16,329	18,024
Comprehensive income	Millions of yen	1,940	7,583	1,207	10,278	747	5,416	6,294	7,042	18,591	21,543
Financial Status											
Total assets	Millions of yen	70,277	85,089	83,608	139,168	133,756	142,660	154,857	169,172	204,604	226,939
Net assets	Millions of yen	49,668	56,787	57,264	99,365	97,739	99,260	103,959	109,954	121,995	139,845
Interest-bearing liabilities	Millions of yen	4,000	9,230	9,820	6,771	4,007	13,426	20,209	23,077	35,678	46,579
R&D Expenses / Capital Investment / Depreciation and Amortization											
R&D expenses	Millions of yen	2,370	2,418	2,728	3,932	5,247	4,839	5,107	4,948	5,144	6,187
Capital investment	Millions of yen	1,515	995	1,035	2,659	3,110	4,869	6,563	5,930	9,639	8,735
Depreciation and amortization	Millions of yen	876	928	917	2,024	2,943	3,102	3,768	4,318	4,837	5,088
Cash Flows											
Net cash provided by (used in) operating activities	Millions of yen	5,191	2,226	(2,551)	5,660	8,458	(1,221)	4,532	4,478	(1,159)	4,762
Net cash used in investing activities	Millions of yen	(3,538)	(10,418)	(1,089)	(1,092)	(1,584)	(6,102)	(4,734)	(5,311)	(7,823)	(10,099)
Net cash provided by (used in) financing activities	Millions of yen	(546)	4,965	(231)	(10,329)	(5,016)	5,253	5,067	439	5,615	6,864

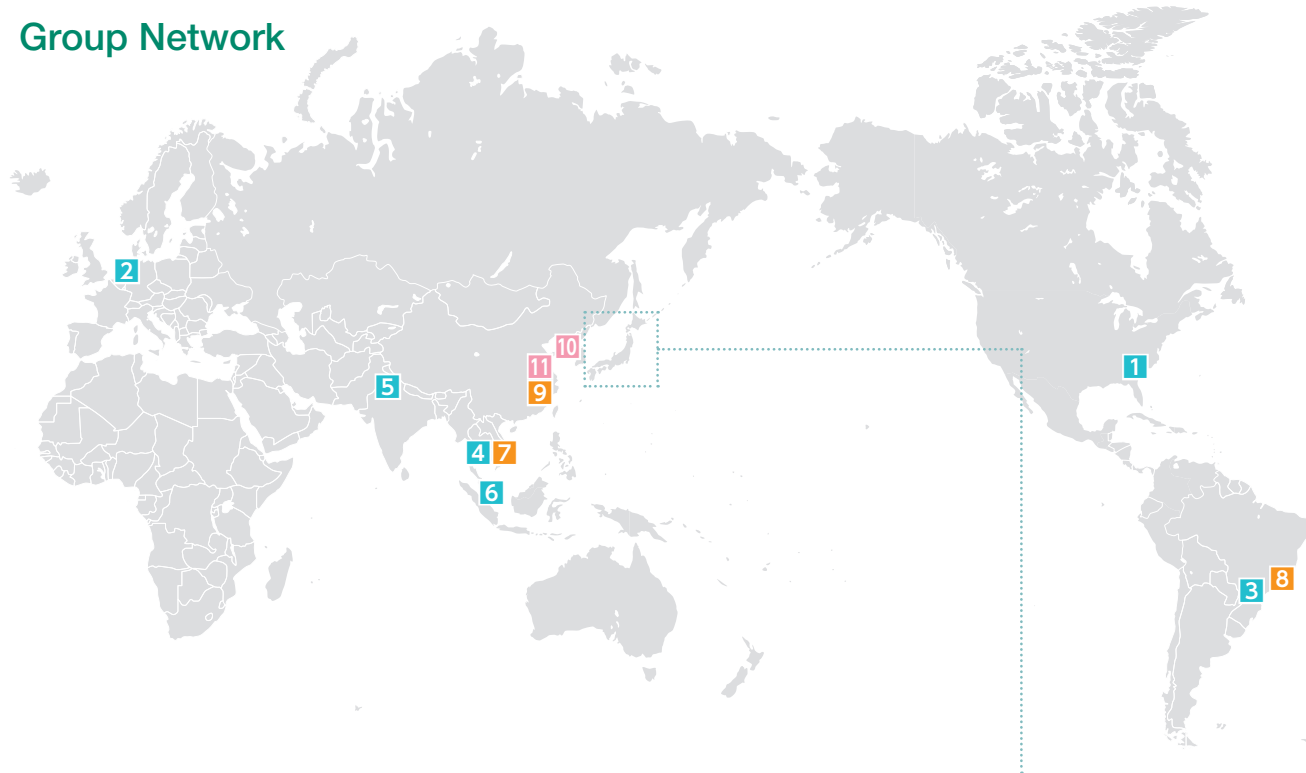
\*1 Sales and operating income by segment are not indicated because segment classifications were different prior to the business integration with Ihara Chemical Industry in May 2017.

\*2 Segment operating income does not include adjustments. Adjustments are mainly corporate expenses that are not allocated to any reportable segment (general and administrative expenses not attributable to any reportable segment).



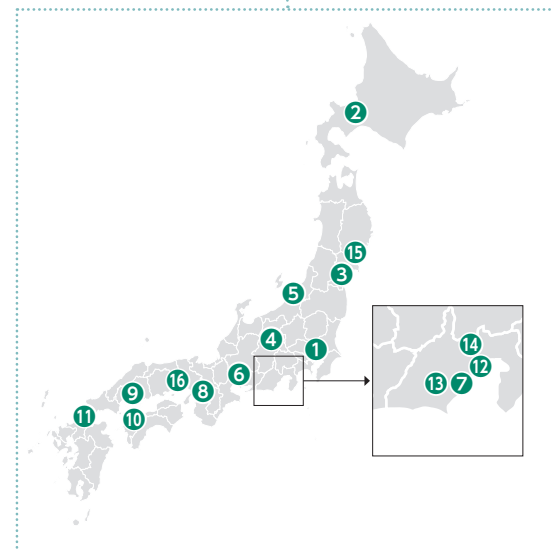
	(Unit)	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Operating Results											
Gross profit margin	%	21.47	21.67	19.77	24.24	24.38	25.21	25.07	24.58	23.54	22.77
Return on sales (ROS)	%	4.7	6.1	3.6	4.8	5.8	7.4	7.7	7.2	8.7	8.8
Ratio of ordinary income to net sales	%	7.75	13.19	7.16	9.56	8.34	9.41	9.24	10.86	16.22	14.98
Ratio of net income attributable to owners of parent to net sales	%	5.51	10.74	5.47	9.32	4.86	6.57	6.17	7.63	11.24	11.19
Research and Development											
Ratio of R&D expenses to net sales	%	4.28	3.96	4.36	5.05	5.42	4.68	4.76	4.19	3.54	3.84
Financial Status											
Equity ratio	%	66.7	62.8	64.4	66.7	67.3	65.9	63.6	61.4	56.4	58.6
D/E ratio	Times	0.09	0.17	0.18	0.07	0.04	0.14	0.21	0.22	0.31	0.35
Management Efficiency											
Return on equity (ROE)	%	6.6	13.1	6.4	9.9	5.1	7.4	6.9	8.9	14.9	14.5
Return on invested capital (ROIC)	%	3.04	3.63	2.26	2.45	3.79	4.70	4.63	4.41	5.58	5.24
Share Indices											
Net assets per share	Yen	586.61	671.94	677.53	734.72	718.67	750.32	787.01	830.44	960.96	1,105.55
Net income per share	Yen	38.17	82.13	43.07	70.40	37.46	54.10	52.92	72.13	135.45	149.88
Dividend per share	Yen	7.00	8.00	8.00	8.00	10.00	11.00	12.00	15.00	22.00	45.00
Dividend payout ratio	%	18.30	9.70	18.60	11.40	26.70	20.30	22.70	20.80	16.20	30.00
Price-earnings ratio (PER)	Times	17.84	11.91	13.81	10.94	18.74	18.63	18.88	11.74	7.22	7.29
Price-to-book ratio (PBR)	Times	1.16	1.46	0.88	1.05	0.98	1.34	1.27	1.02	1.02	0.99

## Group Network



## List of KUMIAI CHEMICAL INDUSTRY CO., LTD. Offices

- ① Head Office / Tokyo Branch
- ② Sapporo Branch
- ③ Tohoku Branch
- ④ Nagano Sales Office, Tokyo Branch
- ⑤ Niigata Sales Office, Tokyo Branch
- ⑥ Nagoya Branch
- ⑦ Shizuoka Sales Office, Nagoya Branch
- ⑧ Osaka Branch
- ⑨ Chu-Shikoku Branch
- ⑩ Matsuyama Sales Office, Chu-Shikoku Branch
- ⑪ Kyushu Branch
- ⑫ Chemical Research Institute ShIP  
Process Chemistry Research Center  
Formulation Technology Research Center  
New Molecule Research Center
- ⑬ Life Science Research Institute  
Agrochemical Research Center  
Life & Environment Research Center
- ⑭ Shizuoka Factory
- ⑮ Kogota Factory
- ⑯ Tatsuno Factory



## List of Consolidated Subsidiaries (Overseas)

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

## List of Equity-method Affiliates (Overseas)

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

### Other Affiliated Companies (Overseas)

- 10** KUMIKA KOREA CO., LTD. (South Korea)
- 11** KUMIAI CHEMICAL SHANGHAI CO., LTD. (China)

## List of Consolidated Subsidiaries (Japan)

- |   |                                   |
|---|-----------------------------------|
| RIKENGREEN CO., LTD.                    | RYOCHI SANGYO CO., LTD.           |
| IHARANIKKEI CHEMICAL INDUSTRY CO., LTD. | NIHON PRINTING INDUSTRY CO., LTD. |
| K-I CHEMICAL INDUSTRY CO., LTD.         | KUMIKA LOGISTICS CO., LTD.        |
| Ihara Construction Industry Co., Ltd.   | NEP CO., LTD.                     |
| ONOMICHI KUMIKA INDUSTRY CO., LTD.      | ASADA SHOJI CO., LTD.             |

RIKENGREEN CO., LTD.

RIKENGREEN operates three businesses: the Greening-related Compounds and Materials Business engaged in comprehensive maintenance for golf courses, highways, and railroads; the Specialty Chemicals Business concerning mainly chemicals used in the paper industry and their application technologies; and the Civil Engineering and Greening Construction Business engaged in school yard greening, park construction, and the cultivation and maintenance of lawns at sports facilities. RIKENGREEN aims to realize an affluent society for symbiosis of people and nature under the motto of “create, foster, and protect greenery” in its relentless focus on new needs and in response to changes in society.



IHARANIKKEI CHEMICAL INDUSTRY CO., LTD.

With chlorination of organic compounds such as toluene and xylene as its core technology, IHARANIKKEI CHEMICAL INDUSTRY supplies raw materials for various products. Deploying its advanced chlorination technology, the company produces fine chemical products used as raw materials for resins, fibers, agricultural chemicals, pharmaceuticals, dyes, and pigments. It supplies high-quality products while taking safety and the environment into consideration. The company vigorously contributes to reducing the environmental impact throughout the supply chain by using chlorine produced using renewable energy sources in the chlorination process.



K-I CHEMICAL INDUSTRY CO., LTD.

K-I CHEMICAL INDUSTRY is engaged in three businesses: the Fine Chemicals Business engaged in manufacturing, sales, and R&D of bismaleimides for electronic materials and various organic intermediate products such as agricultural chemical and pharmaceutical intermediates; the Industry Chemicals Business engaged in manufacturing, sales, and R&D of disinfectants and antiseptics used in various industrial fields and hot spring disinfectants that utilize the technologies for industrial disinfectants and antiseptics; and the Bio Products Business engaged in manufacturing, sales, and R&D of safe feed, feed additives, contracted culture, etc. that utilize the characteristics of microorganisms. K-I CHEMICAL INDUSTRY contributes to realization of an affluent society through provision of diverse products that underpin social infrastructure.



Ihara Construction Industry Co., Ltd.

Ihara Construction Industry contributes to the development of local communities through its General Construction Business and the Expanded Polystyrene Business. In the General Construction Business, the company handles various public and private construction projects mainly in Shizuoka Prefecture, including building construction, land development, road paving, and water and sewage system installation. In the Expanded Polystyrene Business, which has four manufacturing bases in Japan (Shizuoka, Chiba, Fukushima, and Miyagi), the company manufactures and sells products such as boxes for storing fish and vegetables, cushioning materials and components for home appliances, and blocks used in construction work nationwide.





Company Information

Company Profile (As of October 31, 2023)

Company name	KUMIAI CHEMICAL INDUSTRY CO., LTD.
Established	June 1949
Representative	TAKAGI Makoto
Share capital	4,534 million yen
Number of employees	2,124 (consolidated)
Business overview	Manufacturing and sales of agricultural chemicals, such as insecticides, fungicides, and herbicides Manufacturing and sales of fine chemicals, such as organic intermediates and amine curing agents
Address	4-26, Ikenohata 1-chome, Taito-ku, Tokyo 110-8782, Japan Tel: +81-3-3822-5036

Stock Information

Status of Shares (As of October 31, 2023)

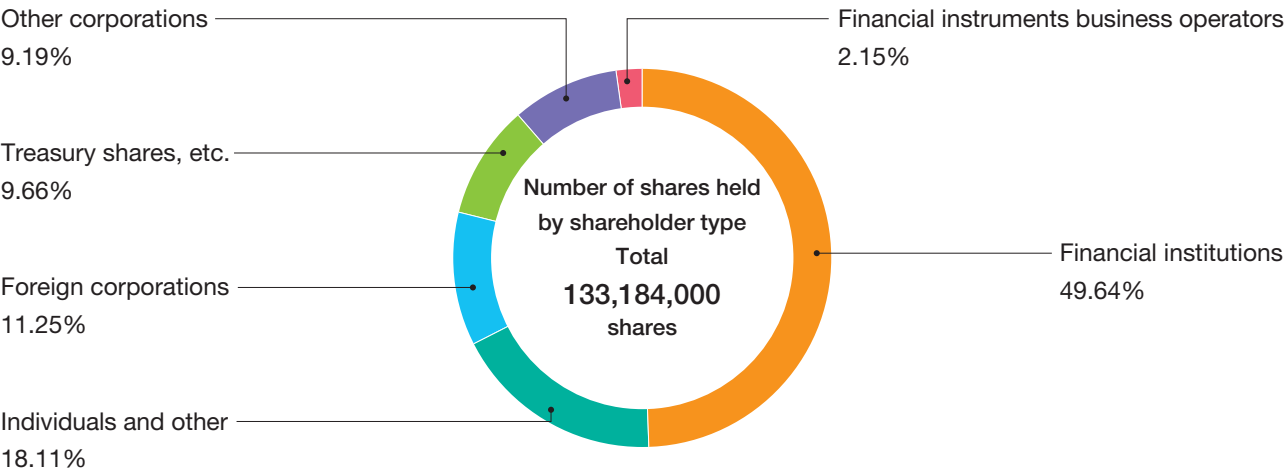
Total number of authorized shares	200,000,000 shares
Total number of issued shares	133,184,612 shares (including 12,859,015 treasury shares)
Number of shareholders	32,484
Stock exchange listing	Tokyo Stock Exchange Prime Market
Audit corporation	FUYOU AUDIT CORPORATION

Major Shareholders

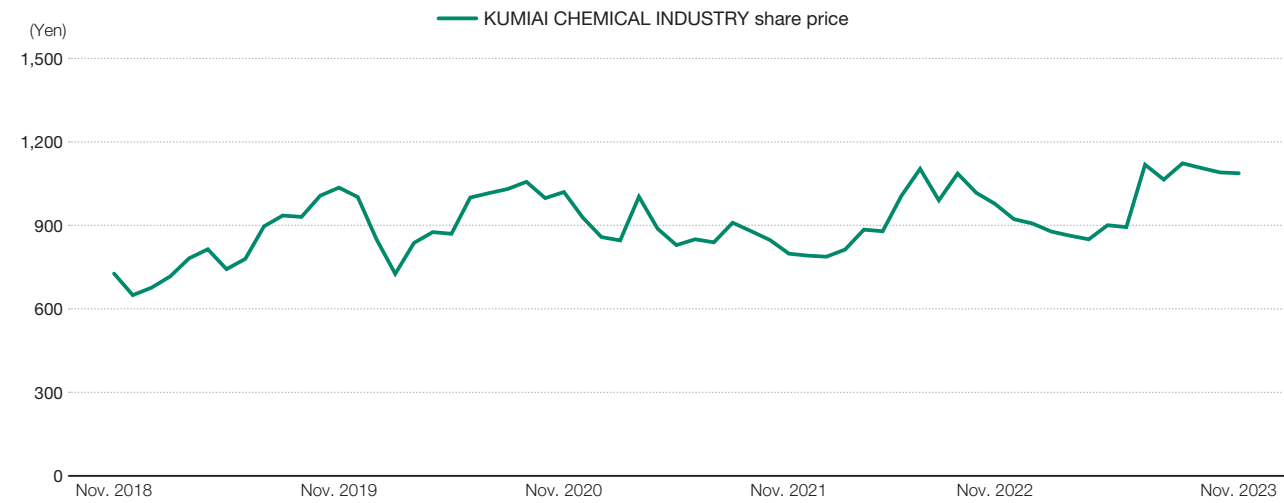
Shareholder name	Number of shares held (Thousands of shares)	Shareholding ratio (%)
National Federation of Agricultural Cooperative Associations (ZEN-NOH)	26,527	22.04
The Master Trust Bank of Japan, Ltd. (Trust account)	12,532	10.41
The Norinchukin Bank	5,517	4.58
Custody Bank of Japan, Ltd. (Trust account)	4,997	4.15
The Kyoei Fire and Marine Insurance Company, Limited	4,480	3.72
JA Shizuoka Keizairen	2,770	2.30
SMBC Nikko Securities Inc.	1,948	1.61
Nippon Soda Co., Ltd.	1,928	1.60
THE BANK OF NEW YORK 133652	1,672	1.39
The Dai-ichi Life Insurance Company, Limited	1,660	1.38

Notes: 1. Numbers of shares held and shareholding ratios are rounded down to the indicated units.  
2. Kumiai holds 12,859,015 treasury shares but is excluded from the above list of major shareholders.  
3. In calculating shareholding ratios, treasury shares are excluded (12,859,015 shares).

Share Ownership Distribution



Share Price



Dividends and Dividend Payout Ratio

