

Mitigation of Climate Change and Environmental Impact

We will work on the mitigation of environmental impact, conservation of biodiversity, and sustainable food production through the development of new technologies, in our efforts to realize a low-carbon, recycling-based society.

Having set mitigation of climate change and environmental impact, contribution to biodiversity, and contribution to a recycling-based society as materialities, our 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 MAFF.

Director, Senior Managing Executive Officer YOSHIMURA Takumi



Initiatives for the Mitigation of Environmental Impact

The Strategy for Sustainable Food Systems, MIDORI announced by the MAFF has as its goals the reduction of risk-weighted use of chemical pesticides and the expansion of organic farming by 2050.

Over the years, we have been committed to the development and promotion of new technologies, and we have contributed to the mitigation of environmental impact and the improvement of safety. We will continue to conduct research and development of safe and secure agricultural chemicals and accelerate our R&D of microbial pesticides and biostimulants. In addition, a project is underway to commercialize technology for reducing emissions of greenhouse gases from cropland.

We are also focusing our efforts on technological innovations that contribute to the Act on Promoting the Utilization of Smart Agricultural Technology. MAMETSUBU® formulations for rice paddies are compatible with different application methods, such as the use of drones and radio-controlled boats, which will reduce labor for growers and the dispersion of chemicals.

Agricore and GRA, whose shares Kumiai has acquired, have strengths in environmental data-driven agritech in facility horticulture, contributing to the improvement of productivity and resource efficiency. Going forward, we will help to realize environmental impact mitigation and sustainable agriculture by applying these companies' technologies to other crops.

Contribution to Biodiversity

Our group declared "Protecting and fostering life and nature" as its corporate philosophy and has set contribution to biodiversity as one of its materialities. As a chemical manufacturer, we manage water resources and waste appropriately and take steps to ensure we do not negatively impact biodiversity

when conducting our business activities. Further, we aim for "nature positive" activities that halt biodiversity loss and reverse adverse trends, to put nature on a track toward recovery.

1. Establishment of Kumika Refugia Kikugawa (biotope)

A 3,030-square-meter biotope has been established on land adjacent to our Life Science Research Institute in Kikugawa City, Shizuoka Prefecture (completed in the end of March 2025). In the past, this area had a rich landscape of countryside and satoyama, but with urbanization, the surrounding environment has changed greatly. As a result, the number of organisms and their habitats have decreased significantly. We aim to maintain and manage this rich natural environment by recreating the satoyama landscape that once existed in this area and reviving the flora and fauna that inhabited it.

The biotope will feature streams, wetlands, ponds, grasslands, and wooded areas, and activities will be conducted to protect the rare creatures and plants that inhabit the area (fireflies, Japanese pond turtles, *eriocaulon nudicuspe*, Japanese iris, etc.). We aim to create an environment where fireflies will fly about by recreating the rice paddies of that time and spraying agricultural chemicals according to appropriate rules. By making use of our knowledge, we will contribute to the realization of a sustainable society and the maintenance of biodiversity.

The biotope will also be a venue for local children to learn about biodiversity and environmental conservation, which will lead to the development of environmental awareness.

2. Environmental Conservation Activities in Kumika Refugia Fukushima Town

In 1974, we 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 flora and fauna unique to the region. For more information, please visit our official website: <https://www.kumiai-chem.co.jp/english/sustainability/environment/biodiversity/>



Contribution to a Recycling-Based Society

We have 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 realize a recycling-based society.

- Targets**
- In order to realize clean factories, we target 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
 - 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 in order to prevent chemical substances generated during the manufacturing process from being mixed in with the wastewater. We have established its own standards for certain substances, which are stricter than those of the Water Pollution Prevention Act, and regularly monitors the water quality of wastewater. We monitor water withdrawal amounts, water discharge amounts, water temperature, and water clarity every day, and if contamination with chemical substances is suspected, we take measures to stop the discharging wastewater.

Greenhouse Gas (GHG) Emissions and Environmental Data

		GHG emissions (t-CO ₂ /year)			
		FY2021	FY2022	FY2023	FY2024
Scope 1	Direct emissions by the reporting company	47,702	47,982	44,182	44,973
Scope 2	Indirect emissions from the use of electricity, heat, and steam provided by other companies	17,459	18,142	13,997	7,098
Scope 1+2	Total emissions	65,162	66,124	58,178	52,071
	Emissions per net sales unit (t-CO ₂ /millions of yen)	0.605	0.503	0.397	0.358
Scope 3 category	1. Purchased goods and services	—	189,859	195,898	208,663
	2. Capital goods	—	27,470	24,880	28,322
	3. Fuel- and energy-related activities not included in Scope 1 and 2	—	12,171	11,461	11,197
	4. Upstream transportation and distribution	—	11,715	8,867	9,491
	5. Waste generated in operations	—	7,676	10,902	10,782
	6. Business travel	—	221	220	220
	7. Employee commuting	—	1,003	1,007	989
	8. Upstream leased asset	—	0	0	0
	9. Downstream transportation and distribution	—	769	590	492
	10. Processing of sold products	—	0	0	0
	11. Use of sold products	—	0	0	0
	12. End-of-life treatment of sold products	—	3,729	3,636	2,670
	13. Downstream leased assets	—	66	66	44
	14. Franchises	—	0	0	0
	15. Investments	—	0	0	0
Total emissions		—	254,680	257,526	272,869

	Unit	FY2021	FY2022	FY2023	FY2024
Energy consumption (crude oil equivalent)	kL	33,559	33,199	31,554	27,895
Amount of purchased electricity	MWh	57,016	55,992	55,729	56,022
Of which amount of renewable energy	MWh	12,635	12,420	25,184	40,827
Water withdrawal amounts	Thousand m ³	—	4,187	3,835	3,585
Amount of industrial waste	Thousand tons	—	8.653	11.124	12.021

*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 90.7% (FY2024).

*Kumiai Chemical Group has received the third-party verification regarding the data concerning our Greenhouse Gas emissions since FY2024 from Japan Quality Assurance Organization (JQA).