

# **Examples of Integrated Actions for Biodiversity and Natural Capital Conservation**

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一般社団法人 日本経済団体連合会



経団連自然保護協議会  
Keidanren Nature Conservation Council

Keidanren (Japan Business Federation)

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## 1. Afforestation and Forest Restoration

Dai-ichi Life Holdings, Inc.

“Dai-ichi Life Forest (Initiatives for environmental preservation)”

The Dai-ichi Life Forest project aims not only to harness the carbon dioxide absorption capacity of forests but also to ensure forest integrity and preserve biodiversity by planting native tree species, including mizunara. These afforestation activities, carried out in collaboration with Ashoro Town residents and the forest conservation organization more trees, create forests rooted in the community



while incorporating professional forest conservation expertise. The purchase of CO<sub>2</sub> offset credits generated from both the afforestation activities and the forests in the planted areas represents a concrete initiative contributing to the realization of a sustainable society, including climate change response and regional revitalization. We consider this to be a meaningful endeavor.

Honda Motor Co., Ltd.

“Satoyama Management at Mobility Resort Motegi”

At Honda’s “Mobility Resort Motegi,” approximately 70% of its 640-hectare site is covered by forest. Since its opening, the resort has pursued corporate activities in harmony with the environment under the theme of coexistence among people, nature, and mobility.

As part of these efforts, the resort engages in satoyama (traditional rural landscape) management. For example, it has undertaken initiatives such as thinning trees in unmanaged woodlands to allow sunlight into the forest and restoring abandoned terraced rice fields. These activities help create habitats conducive to wildlife and are considered to contribute to biodiversity and the conservation of natural capital. To date, about 5,800 species have been confirmed on the premises, including some rare species. In addition, as a climate change countermeasure, the resort promotes forest rejuvenation and strengthens its carbon absorption function by encouraging new growth from stumps through thinning. As part of resource recycling efforts, thinned wood is utilized as firewood and charcoal for camping or as materials for crafts, forming an integrated approach to sustainability.

ITOCHU Corporation

“Mangrove Planting Project with Uken Village of Amami Oshima Island in Kagoshima Prefecture”

Since 2014, Uken Village of Amami Oshima Island has conducted mangrove planting activities by local elementary school students, fostered their pride in the local natural environment and raised their environmental awareness. ITOCHU endorsed the purpose of this initiative and began supporting these activities in 2021, also aiming to contribute to nature



positive and obtain blue carbon credits. In 2023, ITOCHU, Uken Village, Japan Airlines Co., Ltd. and Sophia University signed an industry-government-academia collaboration agreement for environmental conservation and regional development. Through regular planting tours, the project contributes to environmental education for the next generation and regional development.

Mangroves not only provide habitats for a wide variety of organisms, but their leaves and fruits also serve as vital energy sources, thereby contributing to biodiversity conservation. Furthermore, mangroves are known to absorb a large amount of CO<sub>2</sub> per unit area and are attracting attention as a climate change countermeasure by reducing CO<sub>2</sub>.

Going forward, we will continue to collaborate with the local community and further expand our multifaceted initiatives.

JAPAN POST HOLDINGS Co., Ltd.

“Use of FSC®-certified paper for postcards and Yu-Pack boxes”

Japan Post Group is promoting management that considers our relationship with Nature, including the conservation of biodiversity.

As one example, Japan Post has established the Guidelines on Procurement of Paper Products aimed at reducing environmental impact while considering the maintenance of forests' public benefits, including biodiversity conservation.

Starting with New Year's postcards issued in November 2021, we have progressively increased the use of paper certified under the international FSC® certification system (FSC® N003846), which promotes responsible forest management. Since fiscal year 2023, all postcards have been manufactured using FSC®-certified paper.

As of October 1, 2025, we began selling Yu-Pack boxes made from FSC®-certified paper. Through these initiatives, we strive to maintain and enhance natural capital.

Komatsu Ltd.

““One World One Komatsu”: An employee-driven social contribution project promoting activities for a sustainable planet”

Komatsu recognize “contributing to society through our business activities” as a part of our corporate social responsibility, and we actively engage in initiatives that leverage our business characteristics to benefit local communities and the global environment.

In 2021, the 100th anniversary of its founding, Komatsu launched “One World One Komatsu”, a global employee-participatory social contribution project, targeting all employees across the Komatsu Group.

As part of these activities, Komatsu Group employees around the world have participated in the global environmental activities, including tree planting and cleanup on International Mother Earth Day.

Each employee is encouraged to take part in simple, everyday actions that contribute to sustainability. These activities are shared on a dedicated platform that consolidates efforts across the Group, fostering a sense of unity toward a common goal and promoting actions for a sustainable planet.

[Achievements through Actions taken on Komatsu Earth Day]

- 1) Planting more than 14,000 trees and native species
- 2) Picking up more than 3,500 bags of trash
- 3) Volunteering more than 15,000 hours collectively



MITSUI & CO., LTD.

“Contribution to the Conservation of Rich Biodiversity and the Multifunctional Roles of Forests through Sustainable Forest Management”

Mitsui & Co., Ltd. and Mitsui & Co. Forest Co., Ltd. have respectively obtained FM (Forest Management) certification and CoC (Chain of Custody) certification. Through this chain of integrated international certifications, the companies maintain a consistent management system and actively promote sustainable forest management.

Efforts are also underway to register sites under the “Nationally Certified Sustainably Managed Natural Site” program, with two locations already registered and applications for four additional sites currently in progress.

A distinctive initiative is the implementation of a “zoning” approach, which classifies forest management methods based on the characteristics of topography and tree species. Forests are categorized into types such as “Harvest-Oriented Sustainable Forests,” “Naturally Regenerated Forests,” and “Biodiversity Conservation Forests,” with operations conducted in accordance with the specific policies of each category.

In particular, for “Biodiversity Conservation Forests,” areas with high conservation value are selected and further classified into four zones: “Special Conservation Forests,” “Water and Soil Conservation Forests,” “Environmental Conservation Forests,” and “Cultural Conservation Forests.” These zones are carefully managed with consideration for ecosystems and local environments.

Through these initiatives, the companies aim to contribute to global targets such as “Nature Positive” and “30by30,” while internationally demonstrating the diverse value that Mitsui’s forests provide to society.

Nippon Paper Industries Co., Ltd.

“Tackling climate change and other key societal issues by improving forest productivity”  
The Nippon Paper Group is promoting the dissemination of elite tree seedlings in Japan and improving forest productivity overseas through proprietary breeding and propagation technologies. Elite trees are improved varieties of Japanese cedar (sugi), cypress (hinoki), and pine (matsu) developed by domestic public research institutions. These trees exhibit superior traits compared to conventional varieties, such as over 1.5 times faster growth and less than half the amount of pollen production. Overseas, the company have developed selective breeding technologies utilizing the genome information of eucalyptus trees, which has reduced the selection cycle from over ten years to less than half, and more than doubled biomass productivity per hectare. Enhancing forest productivity in this manner contributes not only to expanding CO<sub>2</sub> sinks, but also to alleviating development pressure on High Conservation Value (HCV) forests and maintaining and expanding multifaceted functions of forests, such as water source conservation and disaster prevention. Additionally, this initiative is expected to yield broad social benefits, including economic returns to mountainous regions and developing countries, hay fever prevention, and resource autonomy, to name a few.



## NIPPON STEEL CORPORATION

### “Reproducing “the grove of a village shrine” and nurturing biodiversity at steelworks”

We have carried out the “Creation of Hometown Forests” projects for over 50 years at our steelworks and factories across the country including the Oita Steel Works which was developed under the guidance of the late Dr. Akira Miyawaki (professor emeritus of Yokohama National University), with the aim of facilitating harmonious coexistence between nature and humans. This project comprises research on the natural vegetation inherent to a certain area in a nearby grove associated with a historical shrine (Chinju-no-mori) and planting trees by local residents and our employees.



This was the first project by a private company in Japan to create a forest that harmonizes with the local landscape and is based on an ecological approach. At present, our forests in aggregate have grown to total around 850 ha (about the size of 180 Yankee Stadiums). Wild birds and animals visit the forests at our steel works sites across Japan. Wild birds and animals inherent to the land return to the forests. Thus, the “Creation of Hometown Forests” helps conserve biodiversity and sequester CO<sub>2</sub>.

To date, the hometown forests at steelworks in Nagoya and Kyushu have been certified as a “symbiosis with nature site” by the Ministry of the Environment.

## Nippon Yusen Kabushiki Kaisha

### “The “Yu no Mori” Reforestation Project”

The NYK Group is engaged in the reforestation project “Yu no Mori,” which aims to preserve and restore the region’s rich natural environment. In April 2022, the Group concluded a forest development partnership agreement with Gotemba City in Shizuoka Prefecture, and we are working closely with the city to develop the forest.



“Yu no Mori” reflects our commitment to giving back to the ocean by enhancing water source conservation through forest creation, thereby purifying the mountains, rivers, and ultimately, the sea.

Although approximately 70% of Japan's land is forested, around 40% of these forests are artificial, and many have been left unmanaged for years. This has led to ecosystem



disturbances and issues such as landslides. To address these problems, "Yu no Mori" aims to cultivate mixed forests that support diverse ecosystems through activities such as thinning and replanting. The Group is dedicated to continuing this project in partnership with local communities.

Nomura Holdings, Inc.

#### "Post-Earthquake Restoration Project: The Sakura Project"

Since 2012, Nomura has engaged in the Sakura Project, a project that aims to develop a site of magnificent cherry trees in Tohanayama in Watari, Miyagi Prefecture. This area was devastated by tsunami caused by the Great East Japan Earthquake. We work with members of the Tohanayama Sakura no Kai (Tohanayama Sakura Club), a local group. Since the launch of



the project, we have continued local activity in spring and fall, and April 2025 marked the 20th session. We have planted a total of 622 cherry trees, 513 which were purchased with donations from employees, with approximately 1,300 employees from Nomura participating. We plan to continue our support for activities to preserve nature through projects such as planting cherry trees, hydrangeas, and forsythias, protecting young trees, and creating a trail through the woodlands.

NSK Ltd.

#### "Afforestation and Forest Regeneration Activities"

At its Fukushima Plant, NSK continues tree planting under the "Forest Creation Agreement" with Fukushima Prefecture and Tanagura Town, signed in 2019 and renewed in 2024. Since FY2018, employees and residents have planted about 500 native trees such as Edohigan cherry and pruned them to aid growth. The effort has absorbed about 40 tons of CO<sub>2</sub> and supports satoyama restoration, resource conservation, climate action, and biodiversity.



Seven & i Holdings Co., Ltd.

“Actions to Circulate Natural Resources Fostered Together with Local Communities - Initiatives by the Seven-Eleven Foundation”

The Seven-Eleven Foundation was established in 1993 to commemorate the 20th anniversary of Seven-Eleven Japan and has been dedicated to environmental-focused social contribution actions ever since. Through nationwide tree planting and forest thinning initiatives, the foundation works to protect biodiversity and restore nature. For example, wood from thinning activities in the "Miyagi Seven Forest" is repurposed to create donation boxes. Funds collected through these in-store donation boxes are used to support environmental conservation efforts, protection initiatives, and grants for community-led environmental projects. This approach fosters the sustainable use and circulation of natural resources, bringing together local residents, government, Seven-Eleven franchise owners, and employees. Additionally, the "Hannan Seven Sea Forest" in Hannan City, Osaka Prefecture, has been recognized as a nature coexistence site and an OECM (Other Effective Area-Based Conservation Measure), contributing not only to national conservation goals but also to the Global Biodiversity Framework's 30by30 target. By working hand-in-hand with local communities, these actions play a vital role in preserving nature and advancing the vision of a sustainable society.

Sompo Japan Insurance Inc.

“Customer-Participatory Biodiversity Conservation Activities 'SAVE JAPAN Project': Realizing Nature Positive Society and Enhancing Regional Resilience”

Sompo Japan Insurance is collaborating with organizations such as Japan NPO Center from 2011 to conduct community-based biodiversity conservation activities nationwide. These activities are funded in part by the cost savings generated from the customers who opt for web-based policy clauses and web-based insurance policy certificates and using recycled parts when repairing their damaged car. As of the end of March 2025, we have successfully conserved more than 300 rare species and engaged over 68,600 participants in a total of 1,157 events. From 2023, we have supported projects by diverse stakeholders aiming for registration as Nationally Certified Sustainably Managed Nature Sites, which contribute to 30 by 30 target, and fostering their subsequent expansion. We also support activities that promote Ecosystem-based Disaster Risk Reduction (Eco-DRR). Consequently, 3 areas were certified for FY2024 through this initiative. Moving forward, to further promote activities incorporating the concepts of Nature-based Solutions (NbS) and green infrastructure through citizen initiatives and contribute to the strengthening of local communities, we have welcomed the Ministry of the Environment as a supporter and Dr. Jun Nishihiro, National Institute for

Environmental Studies' Center for Climate Change Adaptation as an advisor, starting in 2025.

Sumitomo Mitsui Trust Bank, Limited

“Launch of Impact Finance for Nature(“IFN”)”

Sumitomo Mitsui Trust Bank launched Impact Finance for Nature(“IFN”), designed to assess the impacts on nature from its clients' business operations and empower them to address these challenges in February 2025. IFN encourages to develop the sustainable society through the assessment of sustainability management, impacts on nature, and nature-related disclosure based on the global standard including TNFD Recommendations. As the IFN Lender, the bank monitors clients’ KPIs and progress toward achieving their targets to catalyze the positive impacts. The bank has also received the Second Party Opinion by Japan Credit Rating Agency, Ltd, conforming that the assessment approach is aligned with the requirements of Impact Finance under the “Concept Paper on impact Finance” published by Ministry of the Environment.

The Nisshin OilliO Group, Ltd.

“Mangrove Planting Efforts in Malaysia”

The Nisshin OilliO Group's business activities are based on plant resources, and the conservation of the global environment and natural capital is the very sustainability of our business. Therefore, based on the Nisshin OilliO Group Biodiversity Policy, we are striving to achieve sustainable growth of our company and the sustainable development of



society by making earnest efforts to addressing conservation of natural capital through our business activities.

Since 2019, as part of our biodiversity conservation and restoration activities, we have been working on mangrove planting in Malaysia, where we source our palm oil .

Mangroves are a general term for plants that grow naturally in shallow waters such as estuaries in tropical and subtropical regions, and in recent years have been attracting attention as a source of CO2 absorption in the fight against global warming.

We have completed planting 8,000 trees over a three-year period on 4 hectares of land in an area adjacent to Sabak Bernam, Selangor, Malaysia .

Many employees are also participating in this initiative , which has also led to an increase

in each employee's awareness of sustainability.

	FY2022	FY2023	FY2024
Total number of trees planted (trees)	4,000	7,000	8,000
Total planted land area (ha)	2	3.5	4
CO2 absorption equivalent (t)	—	—	160

## TOYOTA MOTOR CORPORATION

### “Sustainable Forest Management at the Toyota Mie–Miyagawa Forest”

Toyota Motor Corporation (TMC) assumed ownership in 2007 of approximately 1,700 hectares of forest in the upper reaches of the Miyagawa River in Mie Prefecture. Managed as the “Toyota Mie–Miyagawa Forest,” the site is operated under a sustainable forest management approach. About 70% of the area consists of planted stands dominated by



Japanese cedar and hinoki cypress, while natural broadleaved and beech forests occur along ridgelines, forming habitats for diverse flora and fauna.

Leveraging data utilization and on-the-ground operational improvement know-how developed in the automotive business, TMC visualizes forest-resource information using aerial imagery and remote sensing and implements data-driven forest management. Thinned wood is used for interior finishes and other applications in company facilities and is also sold on the market, promoting circular use of wood resources and supporting increased carbon sequestration and storage.

Walking trails have been developed in selected areas to provide nature-based learning opportunities through school forestry programs and community events. The forest obtained FSC Forest Management (FM) certification in 2010 and, in 2023, was recognized by Japan's Ministry of the Environment as a site under the Nationally Certified Sustainably Managed Natural Sites program.

## 2. Urban Greening

CHUGAI PHARMACEUTICAL CO., LTD.

“Eco-Conservation at Chugai Life Science Park Yokohama”

The concept for Chugai Life Science Park Yokohama is “Green Innovation Village - State-of-the-art creative research laboratories scattered in the green.” The site incorporates a lot of greenery and is designed to harmonize with the local community. It is actively working to enhance biodiversity by



planting mainly native species, thereby serving as an important habitat for wildlife inhabiting nearby areas such as Maioka Park and the Kashio River. We confirmed the presence of the Little Ringed Plover, a bird species listed on the Kanagawa Prefecture Red List. During the breeding season, both adult and juvenile plovers have been continuously observed inhabiting the “Little Ringed Plover Plaza,” a gravel area created specifically to support their breeding. As a result of these initiatives, the park was officially certified by Japan’s Ministry of the Environment in the second half of FY2024 as a “Nature Symbiosis Site.” In addition, as an adaptation to climate change countermeasures, green infrastructures that can temporarily store rainwater is established in green zones for the purpose of mitigating urban flood damage. Green parking lot has been installed, and it is being taken to prevent heat islands, such as the use of heat-shielding pavement, making it a sustainable facility design aimed at coexistence with nature.

Dai-ichi Life Holdings, Inc.

“Promoting Green Buildings”

Dai-ichi Life has been promoting the greening of buildings within its real estate portfolio. Acros Fukuoka, located in the Fukuoka City and completed in 1995, was designed to enhance the city’s environmental assets. The building is linked to a mountain, and 37,000 trees of around 80 varieties has been planted in a terraced roof garden called the “Step Garden”.



Due to subsequent supplementary planting and species carried by wild birds, the



number of tree species has increased to around 200, creating a new ecosystem that resembles a natural mountain. Locals know it as “Mt. Acros”. Additionally, we promote the formation of a circular society by managing vegetation using natural water circulation or rainwater and waste from the building’s restaurants to use as organic fertilizer.

Tokyo Electric Power Company Holdings, Inc.

“Ministry of the Environment’s Decarbonization Leading Area: Environmental Conservation-Oriented Tourism Initiatives in Nikko City, Tochigi Prefecture”

The TEPCO Group, through a joint proposal with Nikko City and Tobu Railway Co., Ltd., has been selected as a Decarbonization Leading Area by the Ministry of the Environment (Nikko City). Together, they are addressing key regional challenges such as revitalizing tourism, reducing energy costs, enhancing resilience, and conserving the natural environment.



The TEPCO Group provides comprehensive energy solutions—including the introduction of renewable energy and storage batteries, energy-saving measures, and the expansion of EV usage—as well as environmental conservation content such as sustainable tourism, protection of rare plant species, and countermeasures against invasive plants. The Group also aims to enhance regional value through collaborative problem-solving with local stakeholders.

In the 2024 fiscal year, environmental conservation-oriented tourism activities were conducted under the theme of “Decarbonized Sustainable Resort: Oku-Nikko Yumoto Onsen.” These activities included tours of hydroelectric power plants, hands-on experiences with hotel and inn facilities utilizing geothermal heat, and nature-based experiences in Oku-Nikko using EV buses. Participants also learned about the issues surrounding the overpopulation of Japanese deer in Senjogahara and the measures being taken to address them.

Tokyo Tatemono Co., Ltd.

“Creation of urban green space and preservation of ecosystem in the Otemachi Tower site (known as “Otemachi Forest”)”

Otemachi Forest is a 3,600 m<sup>2</sup> green space, equal to about one-third of the Otemachi Tower site area. It was developed in 2013, using the “preforesting” method, in which plants are nurtured in a forest in Kimitsu City, Chiba Prefecture for approximately three years to verify everything from its design policy to its management policy, and the soil and plants were transplanted upon completion of construction. Even after the construction was completed, the ecological surveys were conducted periodically to check the status of a rich ecosystem. In addition, we are also focusing on external communications, such as holding environmental education programs in collaboration with its tenants and other organizations.



Mitsui Sumitomo Insurance Company, Limited

“An Integrated Approach to Biodiversity and Natural Capital Conservation and Climate Change Mitigation through Surugadai Green Space”

Surugadai Green Spaces is the collective name for the green areas surrounding our Surugadai Building and its new annex. Situated midway between the Imperial Palace and Shinobazu Pond in Ueno Park, it forms an "ecological network" facilitating the movement of wild birds that inhabit both locations. The rooftop garden on the



lower floors of our main building is composed of a layered structure of tall trees, medium and low shrubs, and ground cover plants that primarily attract target bird species. Year-round monitoring analysis by experts has validated the ecological network's functionality. The soil, which has an average thickness of 1 meter, absorbs rainwater from heavy downpours, preventing rapid influx into the sewage system. Calculations suggest it can store up to 3 hours' worth of rainfall at a rate of 100mm per hour, which is expected to help prevent local flooding. In summer, the green space effectively mitigates heat, contributing to climate change mitigation efforts.

In September 2025, the site is set to receive certification under the new system for nature symbiosis sites, further recognizing its integrated approach to biodiversity and natural capital conservation, along with climate change mitigation.



Nomura Holdings, Inc.

### “Ecosystem Conservation through the Cultivation of Plants and Vegetables and Beekeeping on the Office Rooftop”

Our London office building has a rooftop garden where we grow flowers, plants, and organic vegetables. These plants attract insects, or pollinators, and birds, including some rare species. Since 2011, our green roof has been home to two beehives



operated in collaboration with our charity partners. By hosting weekly visits to the beehives during the summer months, we provide employees with the opportunity to learn about the importance of biodiversity and the environment and understand the critical role of bees in our ecosystem and food chain. Employees can also participate in honey harvesting workshops, or help with the harvesting, filtering and bottling of honey. There is also the opportunity to participate in our ‘Adopt a Bee’ program.

## 3. Marine Environment

Japan Airlines Co., Ltd.

### “Karatsu Bay Seaweed Farming Experience Program for Developing Human Resources for the Future”

The Karafusa Research Group (volunteers from the Saga Genkai Fishery Cooperative Association), Kyushu Branch of Japan Airlines Co., Ltd., Kyushu University, Sashi Elementary School, and Karatsu City have jointly implemented a program to experience seaweed cultivation using cultivation ropes. Children experience planting seeds every November and harvesting the grown seaweed in



February of the following year. Japan Airlines gives a lecture on airline work and SDGs initiatives, Kyushu University gives a lecture on carbon neutrality, and all participants clean up the beach after the seaweed farming experience, all working together to deepen children's learning about environmental issues. In addition to contributing to biodiversity by enriching seaweed beds through seaweed cultivation, the majority of the seaweed is not harvested but left in the ocean as blue carbon, which is stored underwater and on the ocean floor, thereby contributing to climate change mitigation

measures. A questionnaire to the children confirmed that the experience led to increased environmental awareness in their immediate surroundings and fostered a love of their hometown of Karatsu, which is blessed with a favorable environment.

Mitsui O.S.K. Lines, Ltd.

#### “Biodiversity and Community Support in Mauritius”

Our company established the “MOL Mauritius International Fund for Natural Environment Recovery and Sustainability in Japan” and the “MOL Charitable Trust” in 2021 to contribute to environmental conservation and local communities in Mauritius. We promote activities such as coral reef conservation, marine education, and support for the sustainable development of



local communities, as well as the planting and preservation of mangrove forests, which help protect coastlines and absorb CO<sub>2</sub>. Mangroves, as part of the blue carbon ecosystem, have a high carbon sequestration capacity, directly contributing to climate change mitigation. They also play a vital role in protecting shorelines from storm surges and erosion, providing habitats for fish and crustaceans, and maintaining biodiversity.

In addition to these initiatives, we aim to enhance environmental awareness among residents through workshops and other initiatives, while working to preserve natural capital and strengthen community resilience.

We regularly share updates on our initiatives in Mauritius on our website ‘MOL for Mauritius’.

#### NIPPON STEEL CORPORATION

“Expanding seaweed bed development activities by effective use of by-product from the steelmaking process aimed at circular economy, and contributing to CO<sub>2</sub> reduction through blue carbon”

Nippon Steel has promoted scientific analysis on usefulness and safety of use of steel slag — a by-product from the steelmaking process. To improve this technology, we began a basic study on blue carbon (CO<sub>2</sub> absorption and fixation in the marine ecosystem), which is getting more attention as a measure against climate change.



We have developed the Vivary® Unit, iron fertilizer and have been using it to promote the regeneration of seaweed beds since 2004.

The technology artificially generate humic acid iron — the combination of iron ions and humic acid in the soil of a natural forest by using steel slag and humic substance originating from waste wood. The product has received a safety certificate from the Safety Check and Certification System of the National Federation of Fisheries Cooperative Associations for our steel slag products.

In fiscal 2024, we conducted demonstration tests of seaweed bed development in 32 sea areas nationwide, conducting continuous surveys of the changes in iron concentration in seawater before and after the test, as well as the growth status of seaweed.

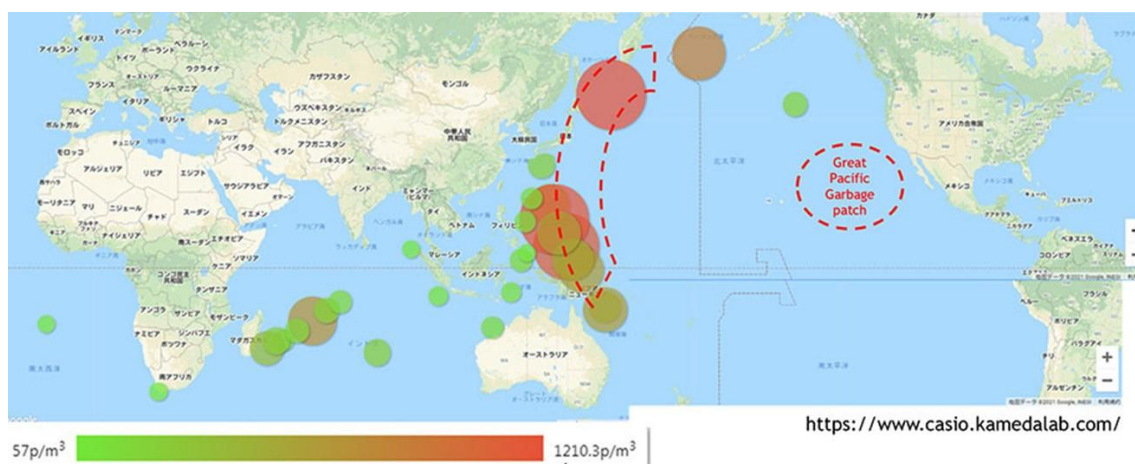
Nippon Yusen Kabushiki Kaisha

“Contribution to the Analysis of Marine Plastics Pollution”

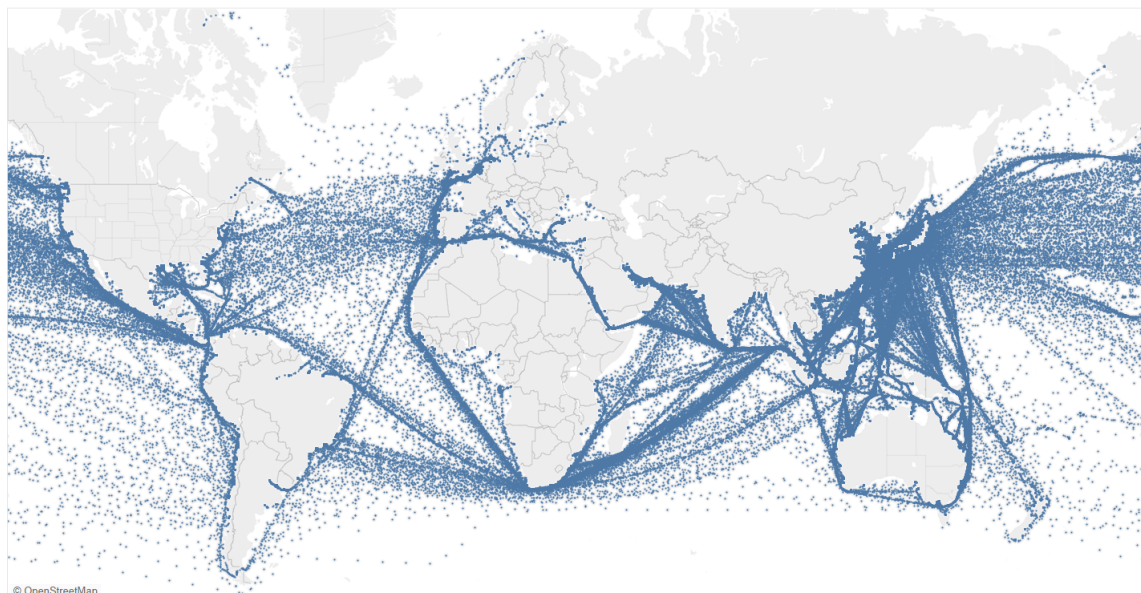
Since 2020, NYK and the Chiba Institute of Technology have been working together on world-leading marine surveys targeting all ocean areas, with the goal of revealing the distribution of microplastics, primarily composed of marine plastics. These surveys focus on accessible sea regions around the globe. To date, microplastic samples have been collected from over 120 locations using the vessel network operated by the Group. Once analyzed by the Kameda Laboratory at the Chiba Institute of Technology, the results are published on a website as the World Marine Plastic Garbage Map.

In January 2023, NYK donated a Raman microscope capable of analyzing ultra-fine microplastics to the Chiba Institute of Technology. Utilizing this microscope, the Kameda Laboratory has established the world’s first method for automatically analyzing ultra-fine microplastics. This donation has enabled world-leading research to fundamentally address the issue of marine plastics.

We will continue to collect samples on our vessels and expand the scope of our survey areas. Furthermore, we will support the Chiba Institute of Technology’s efforts to establish advanced methods for marine surveys focusing on ultra-fine microplastics. We are committed to providing measurement data and survey results that will directly contribute to finding a fundamental solution to the problem of marine plastics.



運航隻数：760隻（2023年度）



NSK Ltd.

“Coastal Conservation and Mangrove Planting Activities in Japan and Overseas”

NSK-Warner Ltd. and Chitose Sangyo Ltd. carry out marine conservation and resource circulation at Nakatajima Sand Dunes in Hamamatsu. Since FY2020, under NPO guidance, employees and families have helped protect sea turtle nesting sites. In FY2024, 101 people collected debris and microplastics. The plastics were sorted and processed to promote recycling and reduce marine waste. The initiative also supports environmental





education through community cooperation.

Seven & i Holdings Co., Ltd.

“Promoting Resource Circulation through Store-Based Initiatives: Reducing Environmental Impact via Bottle to bottle Recycling”

Seven-Eleven Japan is promoting "bottle-to-bottle" horizontal recycling by installing reverse vending machines for PET bottle collection at approximately 4,200 stores nationwide (as of October 2025). This initiative enables used PET bottles to be recycled into new ones, supporting the reduction of fossil fuel-based plastic usage and CO<sub>2</sub> emissions. The collected bottles are processed into high-quality recycled materials, contributing to environmental sustainability. By positioning its stores as resource collection hubs, Seven-Eleven Japan encourages customer participation in recycling and fosters environmental awareness through collaboration with local communities. These efforts represent a step toward building a sustainable circular economy, fulfilling the company's corporate responsibility while contributing to the preservation of the environment for future generations.



## 4. Utilization of Biomass Resources

Komatsu Ltd.

“Turning biomass combustion ash into fertilizer at Komatsu Awazu Plant”

Since 2015, Komatsu Awazu Plant in Ishikawa Prefecture has operated locally produced biomass boilers using woodchips as fuel, mainly made of unused left-over wood after forest thinning in the Kaga area. Using about 6,000 tons of woodchips annually,



Komatsu contributes to promoting sound management of forests and curbing driftwood-caused damages after heavy rain. Meanwhile, the generation of about 20 tons of wood ash (biomass combustion ash) per year as industrial waste was an issue for the Awazu Plant.

Nomura Holdings, Inc.

“Drive Decarbonization and Enhance Agriculture Using Biochar”

In February 2025, Nomura signed a memorandum of understanding with Shonaikomekobo Corporation, an agricultural group based in Yamagata, to promote decarbonization and advance agriculture using biochar. A month later, the group launched a carbon farming initiative by spreading biochar made from rice husks



generated during the polishing process over their farmland. This not only improves soil quality but also aims to reduce greenhouse gas emissions by sequestering carbon in the soil. This initiative seeks to create and eventually sell carbon credits through the use of biochar. Nomura Securities collaborates with the group in creating and selling carbon credits generated from spreading biochar on farmland, as well as partnering with companies and agricultural corporations to expand the production of biochar throughout Japan, and promoting the use of biochar in other industries.

NSK Ltd.

“Utilizing Biomass Resources through Recycling of Organic Waste”

NSK provides control and monitoring technology for composting plants to its partner CHITOSE Group. In FY2025, the “CHITOSE Biomass Conversion Plant” was installed at Morioka Zoological Park ZOOMO, converting animal manure and leftover feed into compost and fertilizer used to grow grass for herbivores. This initiative reduces waste, improves soil health, and supports biodiversity and local natural capital.



Seven & i Holdings Co., Ltd.

“Reducing Plastic Usage and Distribution through the Adoption of Biomass-Based Materials”

Seven-Eleven Japan is actively working to reduce the use of fossil fuel-based plastics by introducing environmentally friendly materials. For items such as spoons, forks, and shopping bags, Seven-Eleven Japan incorporates 30% plant-derived biomass polyethylene and has implemented measures to limit unnecessary distribution. Straws used for Seven Café beverages have been switched to biodegradable materials to help reduce the environmental impact. Since the introduction of fees for shopping bags in 2020, the rate of customers declining bags has risen to approximately 70%. Additionally, Seven-Eleven Japan is focusing on reducing the thickness of plastic products to minimize resource usage. Through these initiatives, the company is contributing to the reduction of CO<sub>2</sub> emissions and the prevention of marine plastic waste, striving to create a more sustainable society.

Suntory Holdings Limited

“Reducing the use of new fossil-derived raw materials by introducing biomass plastics”

In order to promote the transition to a circular and decarbonized society, Suntory is working to switch all PET bottles used globally to 100% recycled and plant-based materials by 2030. Regarding plant-based biomass PET bottles, the company has introduced PET bottles made from 30% plant-based materials for all 2L PET bottles of Suntory Tennensui, and in 2024 it had succeeded in replacing terephthalic acid, which accounts for 70% of PET resin, with used cooking oil (biomass resource), and this was introduced in a limited number of PET bottle products for approximately 45 million



bottles. Through the introduction of these biomass PET bottles, the company is working to reduce the use of new fossil-derived raw materials and conserve natural resources.

Toray Industries, Inc.

“Activities for supplying raw materials for fibers, resins, and films using non-edible biomass-derived resources”

The Toray Group is working to effectively utilize non-edible biomass resources to reduce dependence on fossil resources and cut greenhouse gas (GHG) emissions for its major plastic products, while minimizing impacts on biodiversity and natural capital. The Group has established core technology to produce non-edible sugar using non-edible biomass, such as surplus bagasse generated at sugar refineries, as feedstock.



Furthermore, in collaboration with Thailand's PTT Global Chemical Public Company Limited, it has jointly developed technology to produce muconic acid and bio-adipic acid—raw materials for nylon 66—using this non-edible sugar as feedstock, achieving successful pilot-scale production. This technology enables the rapid conversion of non-edible sugar into muconic acid, followed by Toray's proprietary process to produce high-purity bio-adipic acid with high yield. The resulting bio-adipic acid can be used in the same manner as petroleum-derived adipic acid. A key feature is that it does not generate N<sub>2</sub>O, a GHG produced as a byproduct formed during the chemical synthesis of adipic acid. This initiative offers synergistic benefits of resource recycling and GHG reduction.

## 5. Others

### 5-1. Case Examples of Integrated Approaches with Climate Change Measures

AGC Inc.

“Balancing “Energy Creation” and “Biodiversity Conservation” — Enhancing Building Value and Decarbonization through Solar Power Integrated into Architecture”

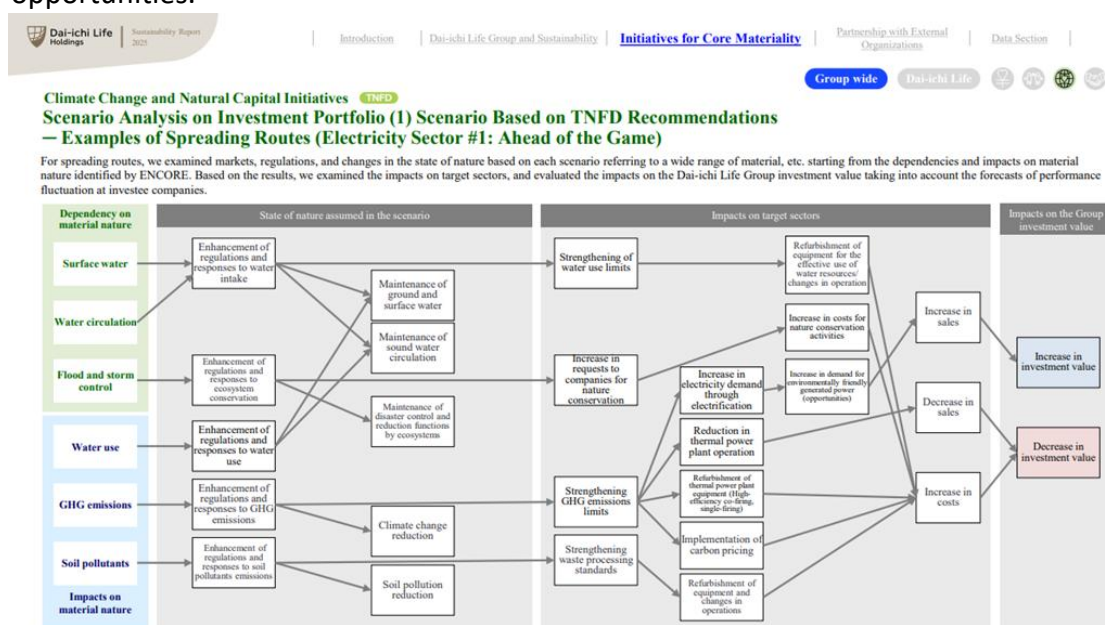
AGC Inc. and the Standard Development Group, chaired by the company, have established JSA S1024, a new standard defining the evaluation method for land-use efficiency of buildings equipped with solar panels. This standard provides quantitative evaluation and scoring methodologies for various types of solar panel installations—such as rooftop systems, skylight-integrated panels, and building-integrated

photovoltaics (BIPV)—by defining the “effective utilization of land” within architectural contexts. As the introduction of renewable energy continues to expand, concerns such as biodiversity loss, landscape degradation, and disaster risks associated with new land developments are also increasing. In response, this new standard was developed with the dual objectives of promoting “energy creation” and ensuring “consideration for biodiversity.” Building owners and developers can utilize this scoring method to visualize the allocation of natural capital when implementing renewable energy, thereby contributing to improvements in ESG assessments and building value. Through the widespread adoption of this standard, the AGC Group aims to contribute to the realization of a more sustainable society.

Dai-ichi Life Holdings, Inc.

### “Analysis of Investees and Own Business Operation based on the LEAP Approach”

We conducted a scoring analysis of our investment portfolio, using approximately 100 indices provided by MSCI, as well as company unit data and site-level data. We also implemented the scenario analysis using two approaches such as the scenario specified by the TNFD recommendations and the water risk scenario. Furthermore, we surveyed our domestic business sites to determine whether they are in biodiversity conservation areas or priority areas and assessed their dependencies and impacts on nature based on the equipment and business activities. Based on the results of these analyses and surveys, the Group has identified risks and opportunities relating to nature capital and biodiversity. We are committed to contributing to nature positive by engaging with and analyzing investees using the LEAP approach to analyze nature-related risks and opportunities.



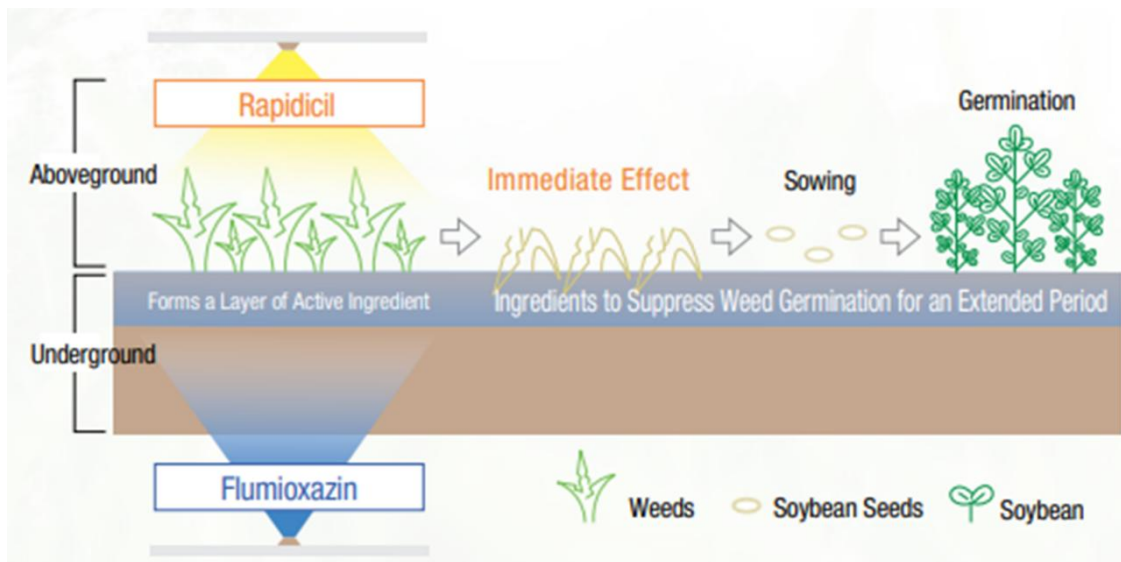
## SUMITOMO CHEMICAL COMPANY, LIMITED

“Contribution through chemical solutions toward the promotion of regenerative agriculture”

Modern society faces a wide range of challenges, including climate change, loss of biodiversity, and food security issues driven by the rapid increase in the global population, and integrated solutions are required. Regenerative agriculture, which seeks to restore and improve soil health while maintaining agricultural productivity, reducing GHG emissions, and preserving biodiversity, is gaining attention as an approach to addressing these challenges. No-till farming, one of the practices of regenerative agriculture, is an agricultural method in which crops are grown without tilling the field before planting.

Our company contributes to the promotion of no-till farming by providing crop protection materials that are effective against a broad range of weeds and possess both quick-acting and residual effects. These products are well suited for weed control prior to crop sowing and have the performance characteristics required for no-till farming.

The widespread adoption of no-till farming offers various benefits, such as reducing fuel consumption through labor-saving practices, preserving aquatic biodiversity by preventing topsoil erosion. Additionally, by minimizing soil disturbance, it helps reduce the emission of carbon dioxide caused by the oxidation of organic matter in the soil.



## 5-2. Case Examples of Integrated Approaches with Resource Circulation

Nippon Paper Industries Co., Ltd., Nichiban Co., Ltd.

“Company Name: Nippon Paper Industries Co., Ltd., Nichiban Co., Ltd.

Activity Name: Recycling Release Paper Generated During Adhesive Tape Manufacturing”

Release paper is considered a prohibited item by the Waste Paper Recycling Promotion Center, a public interest incorporated foundation, due to the fact that polyethylene-laminated paper is sometimes used on the surface and that residual adhesive from used release paper should not be mixed into recycled raw materials.\*1 Most of the approximately 95,000 tons\*2 of release paper distributed annually in Japan is discarded or recycled for thermal purposes.

Nichiban Co., Ltd. and Nippon Paper Industries Co., Ltd. have recently launched a new initiative to recycle release paper generated during the manufacturing process of adhesive tape products. Nichiban thoroughly separated the adhesive from the release paper during the manufacturing process and developed a unique collection and transportation scheme in collaboration with Nippon Paper. This initiative allows the release paper to be separated into the paper fiber and polyethylene layer, enabling the paper fiber portion to be material recycled as cardboard.

\*1 Category B prohibited item in the Waste Paper Recycling Promotion Center's Standard Quality Standards for Waste Paper.

\*2 From the Label Recycling Association website.

Nippon Yusen Kabushiki Kaisha

“Donation to San Miguel Corporation (SMC) River Cleanup Project”

NYK has decided to donate to the river cleanup project initiated by San Miguel Corporation, a major conglomerate in the Philippines, committing a total of \$1.5 million over five years. In urban areas of the Philippines, river and ocean pollution caused by waste disposal, including plastics, has become a significant social issue. Additionally, in rivers where flow has been impeded by accumulated waste, sediment buildup has worsened, increasing the risk of flooding during heavy rains.

In 2021, San Miguel Corporation launched efforts to address these issues by undertaking waste removal and sediment clearance in 13 major rivers around Manila Bay, including the Pasig River. Over four years, approximately 8.5 million cubic meters of waste and



sediment have been removed from about 160 kilometers of river length. NYK's donations have been used to purchase and operate excavators for river restoration activities aimed at reducing marine pollution and flood damage.

### 5-3. Case Examples of Integrated Approaches with Climate Change Measures and Resource Circulation

NGK INSULATORS, LTD.

“Creating positive impacts on nature through business activities”

The NGK Group's mission is ‘Enriching Human Life by Adding New Value to Society’. Based on this, we contribute to reducing society's negative impact on nature through our unique ceramic technologies, which is our core strength. Our extensive activities include numerous products and services that have an integrated effect on environmental impacts such as reducing land use change, mitigating climate change, decreasing resource consumption, and preventing pollution. Furthermore, by strengthening these activities, we aim to realise our mission in a sustainable manner.

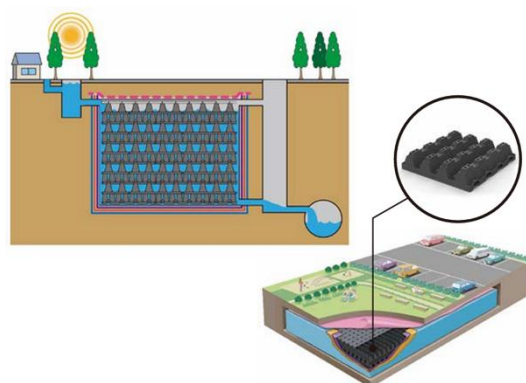
Business content		Main products & services	Change in land use	Climate change	Resource use	Pollution			
			Terrestrial ecosystem use	GHG gas emissions	Non-living resource extraction	Solid waste	Non-GHG atmospheric pollution	Soil pollution	Water pollution
Environment Business Group	Automotive Ceramics Business	Ceramics for purifying auto exhaust	●		●	●	●	●	●
		NOx sensors	●		●	●	●	●	●
	Industrial Process Business	Industrial heating systems, refractory products	●	●	●	●			
		Membrane separating systems		●		●			●
		High-temperature dust collectors	●		●	●	●		
		Low-level radioactive waste treatment units		●		●	●		
Digital Society Business Group	High Performance Ceramics Business	Ceramics for semiconductor manufacturing equipment				●			
	Electronic Devices Business	EnerCera		●	●	●			
	Power Electronics Ceramics Business	AMB substrates		●		●			
	Specialty Metals & Molds Business	Special metals and mold products		●	●	●			
Energy & Industry Business Group	Energy Storage Business	NAS batteries	●	●	●	●			
	Insulator Business	Insulators	●	●	●	●			



SEKISUI CHEMICAL CO., LTD.

“Business that leads to the conservation of natural capital, taking into account the synergies with each environmental issue in an integrated manner”

In the infrastructure business, there is a product called "Crosswave Rainwater Storage Material" that contributes to solving the issue of climate change adaptation by reducing the water risk caused by disasters that are becoming more severe due to climate change. When heavy rainfall exceeds the soil's absorption capacity, damage from flooding above floor level and rivers bursting



their banks can be severe. One way to mitigate this damage is to build reservoirs in each area, but building reservoirs damages the ecosystem and natural capital of the area. As a measure to revive terrestrial ecosystems while retaining the ability to store rainwater, a resin rainwater storage material (with a porosity of over 95%) that can be buried underground has been developed, and its high load-bearing capacity makes it possible to use it on land in grasslands, parks, etc. The main raw material used to make this product is plastic, but recycled materials are used in the manufacturing process, which also takes resource recycling into consideration. An LCA assessment using LIME3 was conducted on the environmental impact of these materials, and the results have been published in the TNFD report.

Seven & i Holdings Co., Ltd.

“Visualizing Risks and Opportunities in Coffee and Rice through Integrated TCFD-TNFD Reporting”

Seven & i Holdings published its integrated TCFD-TNFD report in September 2025, strengthening its analysis of risks and opportunities related to climate change and nature. The report focuses on key raw materials such as coffee and rice, evaluating the impact of climate change and biodiversity loss on the stable supply of raw materials. It also highlights opportunities for sustainable sourcing and collaboration with local communities and diverse stakeholders. By leveraging the TNFD framework, Seven & i Holdings has gained the ability to quantitatively assess its dependency on and impact on nature, enabling more



CLIMATE and NATURE Disclosures  
Integrated report based on  
TCFD/TNFD recommendations

 SEVEN & i HOLDINGS Co., Ltd.

strategic and informed decision-making within the organization and in its engagement with suppliers. Moving forward, Seven & i Holdings aims to further accelerate group-wide initiatives to balance nature conservation with business growth.

#### SUMITOMO CHEMICAL COMPANY, LIMITED

##### “Efficient Use of Water Resources: Recycling Household Wastewater for Industrial Use”

Sumitomo Chemical India Ltd.’s Bhavnagar Plant serves as a crop protection product manufacturing site in India. The plant used to purchase river water from the local municipality to secure water for production. However, in recent years, securing the water required for production has become difficult due to population growth in the surrounding area,



rising demand for agricultural water, and a decline in annual precipitation.

At the Bhavnagar Plant, we purchase a portion of house–hold wastewater to be treated by local municipalities, then treat it and utilize it in production. This method of waste–water treatment is that it utilizes vermiculture technology instead of an activated sludge method to turn pollutants in household wastewater into nutrients.

Through this initiative, we have been able to reduce the amount of river water we purchase from local municipalities by over 70%, providing a solution to the long-term issue of securing stable amounts of the water necessary for production activities as well as allowing us to successfully lower the cost of purchasing water by around half, achieving financial efficacy. It is contributing to water-related issues in the surrounding areas.