SEKISUI

TCFD / TNFD

Task Force on Climate-related Financial Disclosures / *Task Force on Nature-related Financial Disclosures*

Report 2025

TCFD/TNFD Report 2025

Task Force on Climate-related Financial Disclosures
Task Force on Nature-related Financial Disclosures

August 30, 2025
SEKISUI CHEMICAL Co., Ltd.

SEKISUI CHEMICAL Group's Responses to Climate Change and Natural Capital (2025)

～Disclosure of Information Based on TCFD/TNFD Recommendations～

Table of Contents

Table of Contents

Editing Policy

- In the text of "TCFD/TNFD Report 2025", the previous medium term management plan refers to "Drive 2022" from FY2020 to FY2022, and the current medium-term management plan refers to "Drive 2.0" from FY2023 to FY2025.

Resolving the crisis caused by climate change impacts and biodiversity loss is internationally recognized as essential for human wellbeing. SEKISUI CHEMICAL Group agrees with this recognition and recognizes that it is also an important issue for corporate sustainability.

Regarding the disclosure of information on climate change issues, the Group expressed its endorsement of the TCFD in January 2019 and began releasing information based on TCFD recommendations in July 2019. In terms of the release of information on biodiversity issues, the Group participated in the TNFD Forum in July 2023 and started releasing information based on the TNFD Guide in September of the same year. The Group also endorses the formal recommendations published in September 2023 and registered as a TNFD Adopter in January 2024, expressing our intention for future information disclosures.

The Group recognizes that the two issues of climate change and biodiversity are deeply related and influence each other (see Figure 1), but in view of the risks faced as a company and the impact on society, it has been determined that it is better to explain the issues from a different perspective or angle so that relevant stakeholders can understand them, and the report has been divided into parts for each issue.

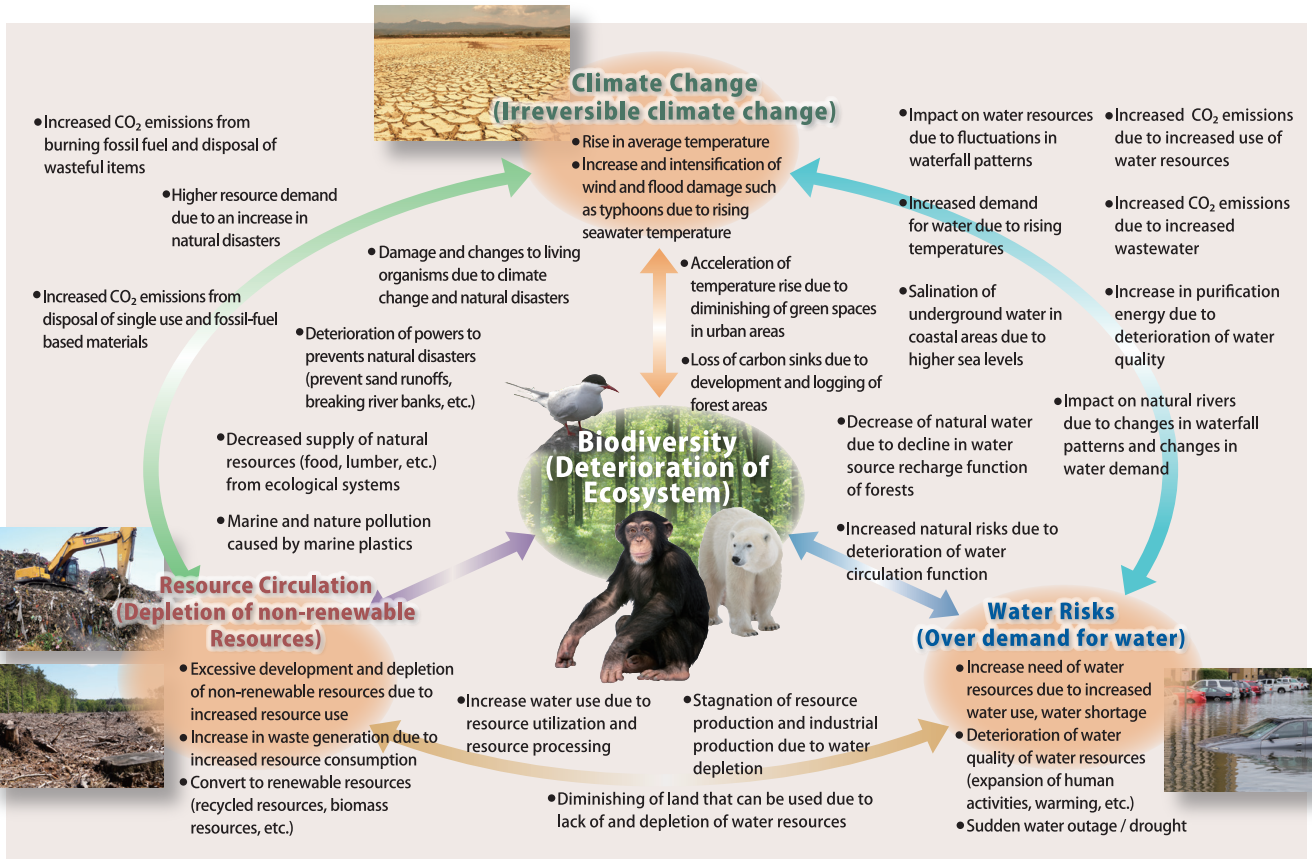


Figure 1: Correlation Among Environmental Issues

[Overview] In the SEKISUI CHEMICAL Group's long-term vision, "Vision 2030", environmental issues, such as climate change and biodiversity, are recognized as key issues, and initiatives are being implemented based on strategies to accelerate the solving of those issues through the Group's businesses.

Positioning of environmental issues

SEKISUI CHEMICAL Group recognizes that environmental issues exist while mutually affecting each other, and is working to solve environmental issues comprehensively. In the medium-term environmental plan (2020-2022), the Group defined the key environmental issues as climate change, water risk, and resource circulation. These key issues are positioned as integrated issues as they correlate with each other and also directly and indirectly influence biodiversity issues.

It is recognized that the efforts to address these environmental issues are not only important to business, but they are also important initiatives that will lead to the realization of an "earth with maintained biodiversity" as set out in the "SEKISUI Environment Sustainability Vision 2050", SEKISUI's long-term environmental vision.

This position remains unchanged in the current medium-term environmental plan (2023-2025). The Group also uses methods such as LIME2 and impact-weighted accounting to visualise the impact of corporate activities on natural capital and their impact on management in order to understand and manage environmental issues thoroughly and quantitatively.

[Long-term Vision]

In 2019, the Group formulated a long-term vision, "Vision 2030", which sets the direction for the entire company (Figure 2). "Vision 2030" is a vision statement that expresses our strong will to innovate in order to "realize sustainable society, we support the basis of LIFE and will continue to create 'Peace of Mind for Generations to Come'". The Group will contribute more than ever to solving social issues by expanding its existing businesses* and taking on challenges in new areas, and by innovating, based on a strategy of innovation and creativity with ESG management at the core of the company's strategy. Through this cycle, the vision of doubling the Group's business (net sales of 2 trillion yen, operating profit margin of 10% or more) in 2030 is targeted.

*Existing businesses:
Four Business Domains of Residential (Housing), Advanced Lifeline (Social Infrastructure), Innovative Mobility (Electronics / Mobility), and Life Science (Health / Medical).

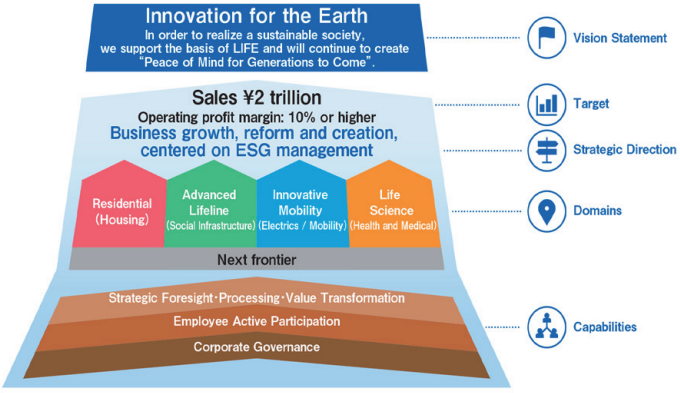


Figure 2: SEKISUI CHEMICAL Group's Long-term Vision "Vision 2030"

[Performance Indicators]

In the long-term vision, two indicators have been established to measure economic values and social values. These indicators are based on the recognition that sustainable management is necessary to continuously expand the degree of contribution to solving issues and earnings. One of these is the "SEKISUI Sustainable Spread", which measures the ability to sustain operations based on the difference between a lower cost of capital and increased efficiency in terms of ROIC. The second is the "SEKISUI

Environmental Sustainability Index"*, which expresses the value of corporate activities on natural capital and social capital as the degree of contribution to solving issues (impact on the earth and society).
The goals of the "SEKISUI Sustainable Spread" are to continuously improve ROIC, which indicate the efficiency of business management over the medium-term, and to lay the groundwork for a management foundation that enhances the long-term sustainability of management.
Regarding the "SEKISUI Environmental Sustainability Index", SEKISUI CHEMICAL Group believes that by continuing to aim for an index value of 100% or more and by doubling our business and continuing further growth will increase the social value of the Group.

*SEKISUI Environmental Sustainability Index:
Quantified amount of impact caused by the use of natural capital by corporate activities of SEKISUI CHEMICAL Group and the contribution to natural capital made by corporate activities. Calculated using the Japanese version of the LIME2 damage calculation impact assessment method. The impact and contribution to social capital is also included in the calculation as of FY2020.

[Medium-Term Management Plan and Important Issues to be Addressed]

SEKISUI CHEMICAL Group has been advancing "Drive 2022", a three-year medium-term management plan covering the period from FY2020 to FY2022, as the first step to achieve its long-term vision. The basic policy has been to "double the business by contributing to solving of social issues, by putting a drive on sustainable ‘growth’, ‘reformation’, and ‘preparation’", with the aim of solidifying the management foundation through full-scale implementation of ESG management and accelerating the preparation for the next stage of growth.
The medium-term management plan "Drive 2.0" that spans the period from FY2023 to FY2025 further focuses on sustainable growth and enhanced preparation in order to demonstrate the feasibility of the Group's long-term vision. The environment is a key issue in this plan, alongside governance, digital transformation (DX), human capital, and innovation.
With regard to environmental issues, the results of the scenario analysis in this TCFD/TNFD report showed that climate change will have a significant impact on management in the short to long term and on other environmental issues, including biodiversity, and both risks and opportunities are recognized for our business. In response, environmental issues have been set as one of the key issues to be addressed in order to achieve the long-term vision, with climate change mitigation and adaptation at the top of the list.

[Long-Term Targets for Environmental Issues]

A medium-term environmental plan has been developed which recognizes the key issues in the environment and considers what needs to be done in the medium term, backcasting from the targets to be achieved by 2050. The direction for 2050, with regards to environmental issues including climate change, is outlined in Figure 3.

SEKISUI CHEMICAL Group's vision for the Earth in 2050 is an "Earth with Maintained Biodiversity" where the goals of all environmental issues, including climate change, resource circulation, and water risks, are accomplished at the same time. Recognizing that corporate activities rely on the natural and social capital of the planet, three activities contribute to the return of the natural and social capital; (1) expand and create markets for "products to enhance sustainability", (2) reduce environmental impacts, and (3) conserve the natural environment. These activities contribute to solving global issues such as climate change,

resource circulation, water risks, and biodiversity (see Figure 3). Moreover, in order to accelerate the Group's contribution to returns on natural and social capital, initiatives will be promoted by not only the Group but also in collaboration with its stakeholders (see Figure 3). This can be explained as "stocks" of natural and social capital, and flows that affect the values of the stocks. Specific examples of initiatives could include the following:

(1) Conservation of natural capital that includes stocks of biodiversity and the physical environment that supports it (air, land, terrestrial water, ocean, land, etc.)
(2) Sustainably utilize ("flow") ecosystem services, that is, utilize the benefits of natural capital.

The group is formulating strategies and promoting initiatives to conserve "stock" and utilize "flow" sustainably.

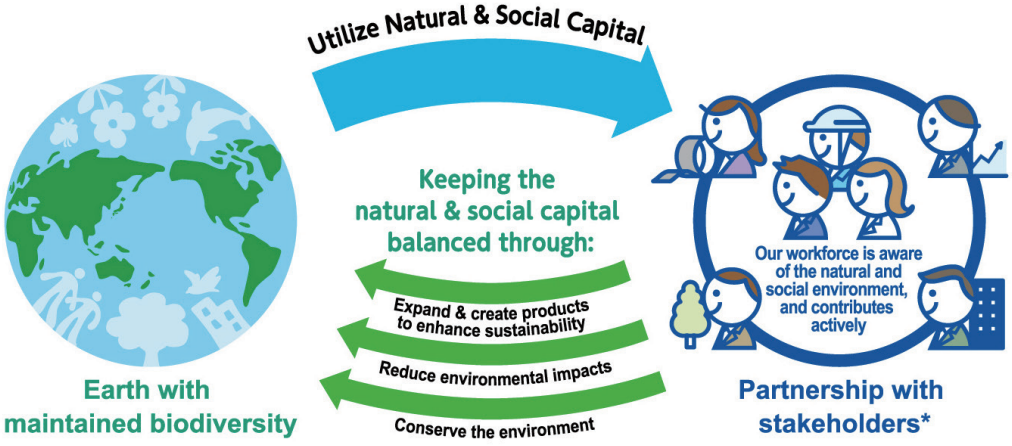


Figure 3: SEKISUI Environment Sustainability Vision 2050

In the medium-term environmental plan that started in FY2023, the focus is on improving the quality of our environmental efforts while simultaneously making changes to achieve solutions to all environmental issues. Reform is being promoted by improving the quality of our efforts by recognizing all environmental challenges, and selecting and implementing solutions with no trade-offs.
To this end, the environmental strategy is being developed with an awareness of the correlation between all environmental issues (see Figure 4).

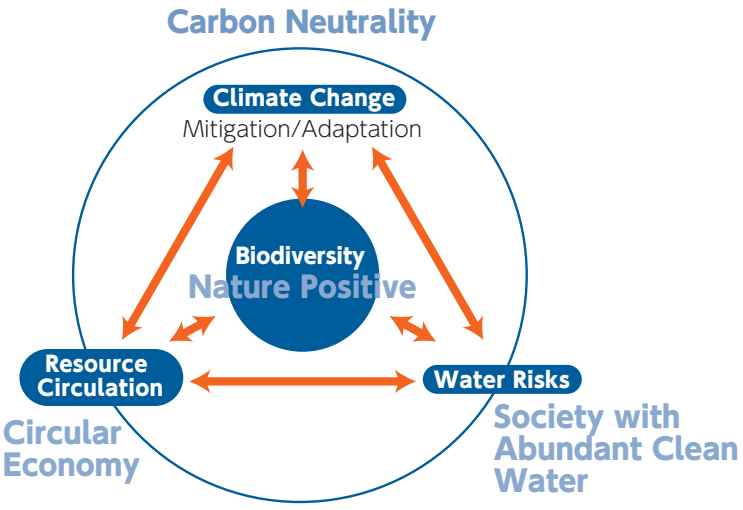


Figure 4: Correlation of Environmental Issues at SEKISUI CHEMICAL Group

TCFD

Task Force on Climate-related Financial Disclosures

SEKISUI CHEMICAL Group, based on the recommendations by the TCFD, has been disclosing its responses to climate change issues since FY2019.
Based on last year's disclosure, the following points have been updated this year:

·The significance of resource recycling initiatives was clarified by building a resource recycling logic model.

Commitment to Actions	In the SEKISUI CHEMICAL Group's long-term vision, "Vision 2030", environmental issues, such as climate change and biodiversity, are recognized as key issues, and initiatives are being implemented based on strategies to accelerate the solving of those issues through the Group's businesses.
Governance	SEKISUI CHEMICAL Group's Board of Directors has made the following final decisions: · Policies and strategies to mitigate the impact on environmental issues, including climate change, and to expand contributions to solving them. · The organization's plan (transition plan) to achieve a sustainable society, including transition to a low-carbon economy. · Understanding the impact of environmental issues, including climate change on management, and policies for addressing those issues. Regarding major matters discussed and decided by the Board of Directors, the Sustainability Committee deliberates on policies and strategies in advance, based on the company-wide situation regarding environmental issues such as climate change, discussed and summarized by the Environmental Subcommittee. In addition, based on the policies, strategies, and transition plans finalized by the Board of Directors, the Environmental Subcommittee discusses specific measures and goal setting, and manages progress.
Risk Management	SEKISUI CHEMICAL Group has built an ERM* system to identify, share, and manage major company-wide risks within the Group, which, together with other risks that are assumed to have a significant impact on management, are evaluated in a unified manner. Among these, specific Group-wide and individual organizational risks and opportunities, including environmental issues such as climate change, are shared and discussed by the Board of Directors, the Sustainability Committee, Group Risk Review Subcommittee, at internal management meetings, and each subcommittee (as described in Section 3-1). The Board of Directors shares the view that environmental issues, such as climate change, are a serious risk and opportunity, and the company has positioned them as requiring medium- to long-term strategies taking into account policies, measures, and transition plans when formulating its management plan, and has developed a medium-term environmental plan (as described in Section 3-2). *ERM: Enterprise Risk Management. This refers to a mechanism and process for Group-wide, integrated risk management and risk management activities.

Strategies

■Scenario analysis

SEKISUI CHEMICAL Group conducted scenario analyses to identify potential risks and opportunities that could arise from climate change, and confirmed that strategies to reduce risks or to convert risks into opportunities are in place for all scenarios assumed. The scenario analyses also reaffirmed the effectiveness of the strategies as a solution to the issues related to climate change.

Based on the 1.5℃ scenario and the 4°C scenario, two axes were set; one axis is whether climate change mitigation progresses or not; and the other axis is decentralization of social systems in rural area or concentration in large cities. Four climate change scenarios were envisaged taking into account the mutual impact of other environmental issues with climate change issues.

Recognizing that environmental issues such as resource circulation, water risk, and biodiversity are related to climate change issues, measures from a broader perspective were reaffirmed. Strategies to re-establish milestones and accelerate efforts to realize a carbon neutral society were reviewed in each scenario, while verifying the validity of these strategies.

Activities based on the three-year medium-term management plan started in 2023. The plan reflects a climate change strategy with transition in mind that will accelerate efforts to achieve a carbon neutral society. The Group will continue to drive corporate activities towards the steady achievement of milestones.

■Validity of the strategies

The following verifications were conducted to confirm that the Group's strategies to address climate change issues were appropriate.

(1) Carbon efficiency (environmental performance) trends

(2) Correlation between carbon efficiency (environmental performance) and economic performance

(3) Calculation of stakeholder comprehensive income using impact-weighted accounting methods (taking into account impacts on resource circulation and biodiversity).

The amount of greenhouse gas emissions emitted by business activities and the amount of greenhouse gas reduction contributed by products that contribute to solving climate change issues are converted into economic value. As a result, it was confirmed that stakeholder comprehensive income, which takes into account the impact of climate change issues on net income, has remained above income for the current year.

Going forward, initiatives using the ESG investment framework in financial planning will be promoted so that environmental value can be expanded while achieving both economic and environmental performance.

Indicators and Targets

Milestones are set by backcasting from the long-term goals of "SEKISUI Environment Sustainability Vision 2050", and efforts until FY2022 had been based on the medium-term environmental plan "Environment Sustainability Plan: Accelerate II". In the current medium-term environmental plan called "SEKISUI Environment Sustainability Plan EXTEND" (2023-2025), the following indicators are set to manage progress on climate change:

(1) Net sales of products to enhance sustainability* (of which, net sales of products that contribute to resource circulation, non-fossil based products, and products using recycled materials)

(2) Greenhouse Gas Emissions (Scope 1, 2, and 3)

(3) Waste resource recycling rate

In FY2024, the target for net sales of products to enhance sustainability was not achieved, with actual sales of 996.8 billion yen compared to the target of 1,000.4 billion yen. Of those, sales of products that contribute to resource circulation expanded to 98.8 billion yen (1.8 times more than FY2020). Of this amount, net sales of products that contribute to resource conversion of raw materials amounted to 35.4 billion yen (11.8 times more than FY2019).

These results indicate that the targets were met under the resource circulation strategy and are accelerating decarbonization efforts.

Greenhouse gas emissions (Scope 1+2) from our business activities met the reduction target. Although there have been changes in the supply chain depending on the year, there has been a downward trend overall since FY2019. There unfortunately has been no reduction in the year-on-year comparison, however.

*Products to Enhance Sustainability System:
Series of products that are certified and registered that contribute significantly to solving environmental and social issues, including climate change issues, based on in-house standards. Products are reviewed by a certification committee composed of in-house members and products that meet the criteria are registered. The committee receives advice and feedback from an external advisory board of external experts to ensure high standards and transparency.

Recent SEKISUI CHEMICAL Group Mitigation and Adaptation Initiatives

■: Internal policies or business development ■: Stakeholder related initiatives (external evaluations, etc.)

Mitigation

Adaptation

2021

■**SBT (Science-Based Targets) certification (first in chemical sector worldwide)**

■At COP24, introduced corporate examples of "our efforts to contribute to greenhouse gases reductions from products through our Global Value Chain"(Official Japanese side event sponsored by Ministry of Economy, Trade and Industry)

■**Expressed support for TCFD**

■[Housing] Received Ministry of Land, Infrastructure and Transport Grand Prize for the 28th Global Environment for "development and popularization of energy self-sufficient housing"

■[Housing] Received the 2019 Minister of the Environment Award for Global Warming Prevention Activity for "development and popularization of energy self-sufficient housing"

■**Set and disclosed a target of zero GHG emissions by FY2050**

■**Joined RE100** RE100 | CLIMATE GROUP | CDP

■**Disclosure in line with TCFD guidelines**

■[Town and community development] Unveiled "Asaka Leadtown", a sustainable town and community development project (Disaster resistance improvement: RCP; Cross-Wave introduction)

■**Included climate change as a management risk in Securities Report**

■**Evolved product evaluation system, from "Environment-Contributing Products" to "Products to Enhance Sustainability"**

■[Town and community development] Began sales for "Higashimatsuyama Leadtown", a sustainable town development project

■Received highest rank from DBJ Environmentally Rated Loan Program operated by the Development Bank of Japan (DBJ)

■Ministry of the Environment's "Climate Change Adaptation Guide for Private Sector" released (participated in the drafting committee)

■[Housing] Received the Excellence Award at the Japan Resilience Awards 2020 for "development and dissemination of energy self-sufficient housing"

■[Housing] Received the Environment Minister's Award at the 29th Global Environment Awards for "Evacuation at Home" housing

■Implemented water risk surveys at business sites to grasp current conditions

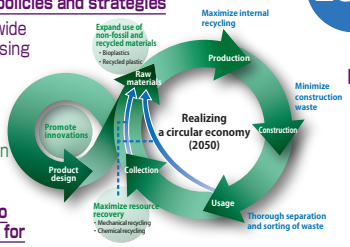
2022

■**Released resource recycling policies and strategies**

■[Housing] Accelerated nation-wide expansion of "Be Heim" purchasing and resale brand

■[Housing] Energy-saving information Service received 2021 Energy Conservation Grand Prize, Energy Conservation Center Chairman's Award

■**[Housing] SEKISUI Heim production plant transitions to use of fully renewable energy for electricity consumption**



■[Housing] Released "New Smart Power Station FR GREEN MODEL" (Energy self-sufficient housing with new large-capacity storage battery "e-Pocket GREEN")

■[Town and community development] Received the 30th Global Environment Grand Prize by the Minister of Land, Infrastructure, Transport for "Sustainable Town Development"

2023

■[Adhesives] Released "SF Green Melt™" series of biomass-based adhesive

■Invested in "Japan Green Investment Corporation for Carbon Neutrality" established by Japan's Ministry of the Environment

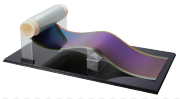
■[Interlayer film] Completed conversion to 100% renewable electricity at film and resin production plants (Netherlands, China, Thailand, USA)

■**Formed business partnership with Volocopter GmbH, which develops and manufactures advanced air mobility solutions**

■[Tape] Released of heat-resistant automotive tape

■**1.5 ℃ target for GHG reduction approved by SBT Initiative**

■[PSC] Began joint development of perovskite solar cells (Tokyo Metropolitan Government, NTT Data, JERA)



■**[BR] Completed 1/10 scale demonstration plant**

■**[BR] Launched new brand "UNISON®"**

■**[BR] Started collaborative efforts by 3 companies (Shiseido, Sumitomo Chemical, SEKISUI Chemical)**

■[Town and community development] "Smart and Resilience Detached Housing Town and Community Development" received FY2022 Good Design award

■[Town and community development] Began large-scale distribution of original vending machines with built-in disaster relief functionality to residential subdivisions, contributing to "Smart and Resilience"

■Received silver award in environmentally sustainable companies division of "ESG Finance Awards Japan"

■[Town and community development] Developed Atsugi-No-Oka Leadtown, a community superior in "Smart and Resilience"

■[High-efficient drainage systems] "Flat Roof High-efficient Drainage System" received FY2022 Good Design Award

■Introduced solutions to social issues through our businesses at the Science Council of Japan Forum "How to secure resilience to overcome national disasters"

■COP27 Japan Pavilion Side Event Role of the private sector in realizing the GGA: How can SEKISUI CHEMICAL contribute to achieving a climate resilient economy and society?

2024

■Participated in "Pre-emptive LCA Social Cooperation Research Division" at The University of Tokyo LCA Center for Future Strategy

■[GC] Selected as NEDO Green Innovation (GI) Fund project "Commercialization of high value-added chemical products using CO_2 as a raw material"

■[GC] Formed business partnership for commercialization and joint study of CCUS (Tokai Carbon Co. and Cosmo Energy)

■[PSC] Exhibited perovskite solar cells at the G7 Hiroshima Summit 2023 and the COP 28 Japan Pavilion

■[Housing] Launched the renovation service that aims to achieve ZEH-level insulation performance

■[PSC] Started demonstration, implementation or joint study of perovskite solar cells (exterior walls on the Osaka headquarters, walls on warehouses, and in Slovakia)

■[Housing] SEKISUI and Renoveru began offering ZEH-level renovations of existing condominiums

■<Resource Circulation> Formed capital and business alliance agreement with Circularise B.V., a developer of a traceability system for resource circulation

■[Housing] "SEKISUI Heim Resource Circulation Model" won the Fuji Sankei Group Prize at the 32nd Global Environment Awards

■[Town and community development] Developed Narita Leadtown, a community superior in "Smart and Resilience"

■**Implemented "Drive 2.0" medium-term management plan based on "Vision 2030"**

■**Implemented environmental medium-term management plan, backcasting from environmental long-term vision 2050**

■[Town and community development] Basic agreement concluded on "Iwaki Smart Town Model District Promotion Project"

■Selected as an A-list company in both the "Climate Change" and "Water Security" CDP categories

■[Housing] Launched environmentally-friendly housing packages that exceed ZEH+ (ZEH+ level/high insulation/disaster resilient features)

■[Drainage systems] Released large-capacity, large-size PVC rain gutters "Super Core V-MAX"

■[Drainage systems] The large-capacity, large-size PVC rain gutter "Super Core V-MAX" won the runner-up award at the PVC Award 2023

2025

■[PSC] Began proof-of-concept testing at various places and for various applications (Floating-type, port facilities, vertical installation, agricultural type, sound barrier, bank branch, windmill tower, gymnasium)

■[Sheet] Developed "paint transfer sheets" to contribute to the reduction of CO_2 emissions in the vehicle painting process

■<Resource Circulation> Verified the usefulness of the Recycled Materials Marketplace System with proof-of-concept testing (in collaboration with Hitachi)

■[Interlayer film] Decided to increase production capacity for making film in Thailand (8 billion yen investment)

■[Adhesive tape] Released unpackaged kraft tape for B to B sales

■[Conductive micro particles] Decided to increase production capacity of Micropearl AU® (investment of 2 billion yen)

■[Housing] Upcycled House through purchase and resale was awarded a FY2024 Good Design Award

■[Housing] Began collaboration to reduce CO_2 emissions from transportation through shared transportation (logistics company + 3 housing manufacturers)

■[PSC] Decided to start mass production (investment of 90 billion yen *including subsidies)

■[Housing] Evolved insulation renovation for existing housing to achieve insulation performance equivalent to insulation grade 6, which exceeds the ZEH level

■Successfully converted purchased electricity to 100% renewable energy at 43 sites

■**Revised the environmental management policy**

■**Formulated our climate change mitigation and adaptation policy**

■[Housing] Implemented the "Eco-Friendly Lifestyle" campaign

■Selected as an A-list company in both the "Climate Change" and "Water Security" CDP categories, and A- (A minus) in the "Forest" field

■Received the highest score in the CDP's Supplier Engagement Assessment

■[Town and community development] Launched a car sharing service (in collaboration with Toyota)

■Received highest rank from DBJ Environmentally Rated Loan Program operated by the Development Bank of Japan (DBJ)

■[Waterstop] Released "Sekisui Waterstop Plabarrier", an adjustable anti-flooding product

■[Drainage systems] Expanded lineup of reinforced plastic composite pipes for rainwater drainage and storage

■[Housing] Conducted a survey on "water outage preparedness"

■[Infrastructure] Held first women-only interactive seminar for disaster preparedness and mitigation (with local governments, consultants, and general contractors)

■[Housing] The ZEH ratio of newly built detached houses in FY2024 was 95%

■[Housing] Launched GX-oriented housing compatible model (heat insulation grade 6)

■[Infrastructure] Began submitting LCA data (CFP data)

■[Housing] Launched two "Smart and Resilience" condominium projects

■[Town and community development] Developed Uzumasa Leadtown the Kyoto, a community superior in "Smart and Resilience"

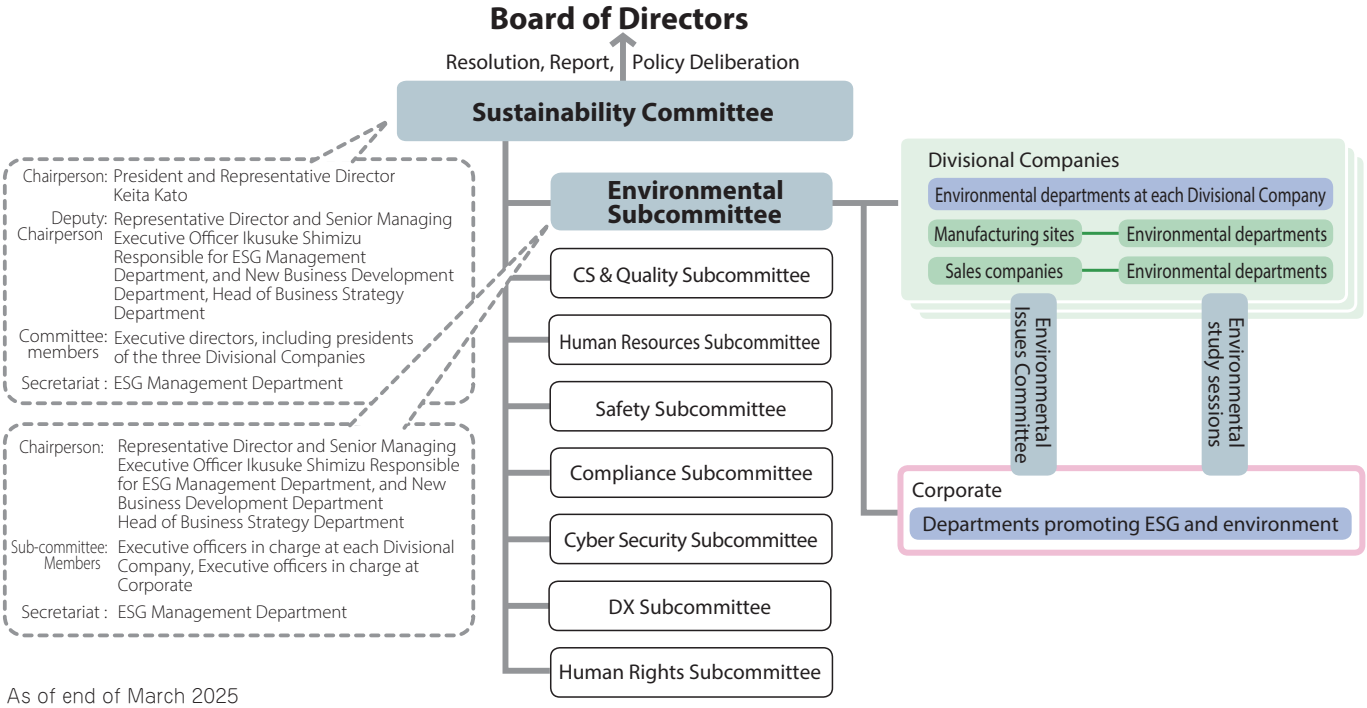
[Overview] SEKISUI CHEMICAL Group's Board of Directors has made the following final decisions:
・Policies and strategies to mitigate the impact on environmental issues, including climate change, and to expand contributions to solving them.
・The organization's plan (transition plan) to achieve a sustainable society, including transition to a low-carbon economy.
・Understanding the impact of environmental issues, including climate change on management, and policies for addressing those issues.
Regarding major matters discussed and decided by the Board of Directors, the Sustainability Committee deliberates on policies and strategies in advance, based on the company-wide situation regarding environmental issues such as climate change, discussed and summarized by the Environmental Subcommittee. In addition, based on the policies, strategies, and transition plans finalized by the Board of Directors, the Environmental Subcommittee discusses specific measures and goal setting, and manages progress.

2-1. Oversight and Execution System for Climate Change and Other Environmental Issues

Under the supervision of the Board of Directors, the magnitude of risks are recognized, appropriate measures are considered, and decisions to implement external environmental issues that may pose management risks such as climate change are made.
Figure 5 shows the supervisory and executive structure that enables the Group to reduce its impact on environmental issues, such as climate change, and to expand its contribution to solving these issues.

Board of Directors:
Receives reports on Group-wide risks, policies, and strategies discussed by the Sustainability Committee, and makes final decisions. Oversees execution of initiatives related to sustainability.

Sustainability Committee:
Examines the risks and opportunities of each materiality, including environmental issues such as climate change, and deliberates on policies, strategies, and key measures to improve the sustainability of society and the Group.
(Twice/year)



As of end of March 2025

Figure 5: Governance Structure on Climate Change Issues

Group Risk Review Subcommittee:
Headquarters officers participate in a side-by-side assessment of the risks and opportunities assessed by each subcommittee to identify serious risks and opportunities for the Group. (Once/year)

Environmental Subcommittee:
Executive officers and directors in charge of Divisional Companies and Headquarters participate in the discussions and manage the progress of strategies and targets set related to environmental issues, such as climate change. (Twice/year)

Environmental Issue Committee:
Set for each key issue, such as renewable energy and resource circulation, and held on a regular basis (once/month).
Managers from the environment departments at Divisional Companies and Headquarters participate to review progress in resolving issues and discuss solutions.

Table 1: Agenda Related to Climate Change of the Board of Directors and Management Meetings

Main agenda up to FY2023		
Initiatives for managing supply chain and application for SBT certification	2017	August Management Meeting, September Environmental Subcommittee Meeting
Commitment to support the TCFD	2018	November Management Meeting
Policy to convert purchased electricity to 100% renewable energy by FY2030	2019	November Management Meeting
Medium-Term Management Plan including ESG investment framework	2020	May Board of Directors Meeting
Policies on GHG reductions and use of renewable energy	2021	February Management Meeting
Policies and strategies on resource circulation	2021	March Management Meeting
Strategies for raising GHG reduction targets by 2030	2022	June Management Meeting; July Board of Directors Meeting
Medium-term Management Plan	2022	July, October, January 2023 Management Meeting
Medium-term Management Plan (ESG management; including environmental issues such as climate change)	2022	September Management Meeting; December Sustainability Committee Meeting; January 2023 Board of Directors Meeting
Stable procurement of renewable energy in the medium- to long-term	2024	January Management Meeting
Agenda for FY2024		
Annual business plan and monitoring progress of ESG management of Divisional Companies	2024	April Board of Directors Meeting
Disclose initiatives in the Annual Securities Report (Risks for businesses, etc.)	2024	June Board of Directors Meeting
Formulate Environmental Management Policy	2024	June Board of Directors Meeting
Facility investments for solving environmental issues	2024	September Management Meeting; October Board of Directors Meeting
Next fiscal year's guidelines on our ESG management, including climate change	2025	January Management Meeting
Annual business plan and monitoring progress of ESG management of Divisional Companies	2025	March Management Meeting

Because progress for each fiscal is monitored regularly twice per year, only recent fiscal years are shown here.

2-2. Monitoring and Incentives on Progress of Action Plans and Target Values for Climate Change and Other Environmental Issues

The Environmental Subcommittee manages the progress of the target values and action plan for achieving a sustainable society. The action plan includes a transition plan for shifting to a low-carbon economy. The subcommittee meets twice a year with the participation of directors in charge in the Divisional Companies and Headquarters and the persons in charge of implementations. The target values and actual values summarized by the Environment Subcommittee are reported to the Sustainability Committee and the Board of Directors. In addition, various measures to achieve the targets are incorporated into the action plans of each Divisional Company, and a system is in place where the Board of Directors monitors progress every April and October.

The Group regards climate change as the most critical issue for the environment, which is an important issue in ESG management.
In the current medium-term management plan (2023-2025), the greenhouse gas reduction rate and waste plastic material recycling rate have been adopted as company-wide KPIs, and are reflected in bonuses for directors, executive officers, and some managers, based on Divisional Company-specific performance evaluations, to promote initiatives to accelerate the achievement of carbon neutrality by 2050.

[Overview] SEKISUI CHEMICAL Group has built an ERM* system to identify, share, and manage major company-wide risks within the Group, which, together with other risks that are assumed to have a significant impact on management, are evaluated in a unified manner. Among these, specific Group-wide and individual organizational risks and opportunities, including environmental issues such as climate change, are shared and discussed by the Board of Directors, the Sustainability Committee, Group Risk Review Subcommittee, at internal management meetings, and each subcommittee (as described in Section 3-1).
The Board of Directors shares the view that environmental issues, such as climate change, are a serious risk and opportunity, and the company has positioned them as requiring medium- to long-term strategies taking into account policies, measures, and transition plans when formulating its management plan, and has developed a medium-term environmental plan (as described in Section 3-2).

*ERM: Enterprise Risk Management. This refers to a mechanism and process for Group-wide, integrated risk management and risk management activities.

3-1. Integrated Risk Management Including Climate Change and Other Environmental Issues

Our Group promotes a risk management system that centrally manages activities to prevent the occurrence of risks (risk management) and activities to respond to risks when they materialize (crisis management), and has established a system that can constantly adapt to changing risks and crisis events according to organizational conditions. (Figure 6)
In the management of risks involving environmental issues, such as climate change, risk information is collected comprehensively by specialized area. Risks and opportunities related to environmental issues, such as climate change, are summarized and evaluated by the Environment Subcommittee and then reported to the Group Risk Review Subcommittee. Risks and opportunities identified as having a serious impact company-wide by this subcommittee are reported to the Sustainability Committee, which is chaired by the President, sub-chaired by the executive director in charge of the ESG Management Department who also serves as the head of the Corporate Business Strategy Department, and composed of executive directors including the presidents of the three Divisional Companies. The committee deliberates on these issues together with company-wide response policies, key measures, and target achievement levels. Policies and main measures in response to the deliberations in the Committee are finalized by the Board of Directors. The identified Group-wide critical risks, opportunities, and their Group-wide countermeasures, as well as major initiatives, are reported to each subcommittee, including the Environment Subcommittee, in which the directors in charge in the Divisional Companies and Headquarters and the persons in charge of implementations participate, and are incorporated into action plans as Group-wide common measures and Divisional Company-specific measures. An ERM system is also being promoted that integrates Group-wide risk management activities with activities of individual organizations by reflecting them in organizational risk management activities by 185 organizations, including domestic and overseas affiliated organizations.

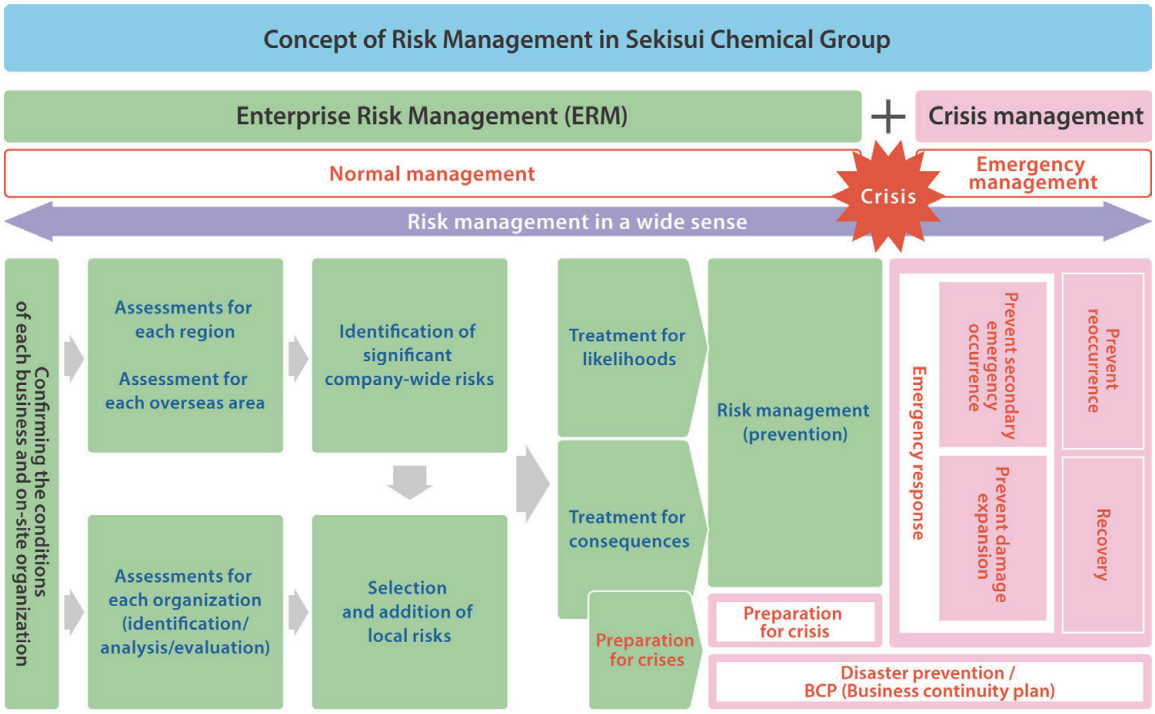


Figure 6: SEKISUI CHEMICAL Group's Risk Management System

3-2. Assessment and Management of Risks and Opportunities Related to Climate Change and Other Environmental Issues

As for climate change and other environmental issues, considerations are given as to what can be done to recognize risks and opportunities, and to reduce the risks and transition them into opportunities. Recognizing that climate change is an important external environmental risk, policies and countermeasures were considered to devise the medium-term environmental plan as a medium- to long-term strategy and the Board of Directors approved the environmental plan as part of the management plan. Based on the indicators and targets set to promote this plan, the PDCA cycle will be used to promote action on climate change issues.

The following is a description of the current status and future of the assessment and management of business risks, including climate change, and the assessment and management of opportunities obtained through action on climate change issues.

<Assessment and Management of Business Risks, Including Climate Change>

In recent years, there has been a need to accelerate responses to mitigate and adapt to climate change issues and to strengthen risk assessments from a longer-term perspective. Accordingly, since FY2019, risk assessments have been conducted through scenario analysis at our Group.

· FY2019-2020: Adopted 2°C and 4°C scenarios
· FY2021: Adopted 1.5°C and 4°C scenarios

With growing demand for initiatives to achieve a carbon neutral society, the Group reconfirmed strategies by reviewing 2030 milestones in 2021. In doing so, the 1.5℃ scenario was reanalysed as a mitigating scenario.

As a result, the risks presented next in Chapter 4 were recognized, and the measures and business strategies needed to achieve a carbon neutral were reaffirmed (Chapter 4, Table 3).

The contents of the current medium-term management plan (2023-2025) reflect these measures and business strategies.

<Assessment and Management of Opportunities Obtained from Addressing Climate Change Issues>

The Products to Enhance Sustainability Certification Committee* and the External Advisory Board* are used to examine the opportunities offered by tackling climate change issues. Discussions with internal committee members and external experts on what contributions to problem solving can be made with the products and services of the Group, has provided insight into strategies that transform risks into opportunities. As shown in the following chapter (Table 3), these business opportunities are shared with the relevant organizations through executive officers or persons in charge of the organization responsible for business planning and technological development at each Divisional Company as necessary, and are utilized in formulating business strategies.

In FY2021, strategies regarding resource circulation were devised, which is one of the important initiatives for the decarbonization strategy, and released (Chapter 4, Figure 14). As shown in the resource circulation strategy, it is important to create products that contribute to resource circulation and expand the market, especially to accelerate efforts to convert plastic, which is the main raw material in the products, into non-petroleum-derived or recycled raw materials.

For this reason, the contribution of existing products to resource circulation issues were reconfirmed, and in-house criteria for "Products to Enhance Sustainability" have been established so that future product designs can be further considered.

In addition to net sales of registered products, the company-wide KPI for the "Products to Enhance Sustainability" system is net sales of "premium quota" products, which are set to strategically grow products that are both profitable and contribute to solving social issues, and to promote the expansion of both aspects.

The system assesses whether opportunities are being obtained through progress management of products to enhance sustainability.

*Certification committee:
A committee to certify products that make a significant contribution to solving environmental and social issues, based on in-house standards. Certifying members are executive officers and other members in charge of key businesses or technologies.

*External Advisory Board:
A meeting chaired by the director in charge of the ESG Management Promotion Department, where five external experts and the above certification committee members exchange opinions regarding the registration of products to enhance sustainability.

[Overview]
■Scenario analysis
SEKISUI CHEMICAL Group conducted scenario analyses to identify potential risks and opportunities that could arise from climate change, and confirmed that strategies to reduce risks or to convert risks into opportunities are in place for all scenarios assumed. The scenario analyses also reaffirmed the effectiveness of the strategies as a solution to the issues related to climate change.
Based on the 1.5℃ scenario and the 4°C scenario, two axes were set; one axis is whether climate change mitigation progresses or not; and the other axis is decentralization of social systems in rural area or concentration in large cities. Four climate change scenarios were envisaged taking into account the mutual impact of other environmental issues with climate change issues.
Recognizing that environmental issues such as resource circulation, water risk, and biodiversity are related to climate change issues, measures from a broader perspective were reaffirmed.
Strategies to re-establish milestones and accelerate efforts to realize a carbon neutral society were reviewed in each scenario, while verifying the validity of these strategies.
Activities based on the three-year medium-term management plan started in 2023. The plan reflects a climate change strategy with transition in mind that will accelerate efforts to achieve a carbon neutral society. The Group will continue to drive corporate activities towards the steady achievement of milestones.

■Validity of the strategies
The following verifications were conducted to confirm that the Group's strategies to address climate change issues were appropriate.
(1) Carbon efficiency (environmental performance) trends
(2) Correlation between carbon efficiency (environmental performance) and economic performance
(3) Calculation of stakeholder comprehensive income using impact-weighted accounting methods (taking into account impacts on resource circulation and biodiversity)

The amount of greenhouse gas emissions emitted by business activities and the amount of greenhouse gas reduction contributed by products that contribute to solving climate change issues are converted into economic value. As a result, it was confirmed that stakeholder comprehensive income, which takes into account the impact of climate change issues on net income, has remained above income for the current year.
Going forward, initiatives using the ESG investment framework in financial planning will be promoted so that environmental value can be expanded while achieving both economic and environmental performance.

4-1. Recognition of Risks and Opportunities

<Impact Analysis of Climate Change Risks>
Various international organizations have formulated multiple climate change scenarios that are predicted to occur over the next 100 years. Climate change scenario setting was based on the UN's IPCC* Fifth and Sixth Assessment Reports, with the view that they are suitable for identifying the risks that climate change poses to the Group and its operations, and for verifying strategies to prepare for long-term risks.

*IPCC: Intergovernmental Panel on Climate Change

Table 2: Climate Change Scenarios

		Societies that have made progress in mitigating climate change	Societies that have failed in mitigating climate change
Reference scenarios	Transition scenarios	IEA NZE2050 IRENA	–
	Physical climate scenarios	RCP1.9 SSP1	RCP8.5 SSP5
Temperature rise		Less than 1.5℃	4℃ or higher
Heat waves and torrential rains		Less extreme weather events	Frequent extreme weather events
Socio-economic trends		Growth and equality with a focus on sustainability	Rapid and unlimited growth in economic output and energy consumption
Energy transformation		Reduction of GHG emissions by 70% from energy transformation by 2050	–
Economic events		Increased carbon prices; Increased fuel prices	–
Risks	Regulatory risks	Large	Small
	Physical risks	Small	Large

Based on the climate change scenarios set, impacts of climate change risks were analysed and strategies were considered to prepare for long-term risks for each business domain. Scenarios are analysed based on the primary assessments conducted by exchanging opinions with relevant company departments, external experts, and think tanks. In the analysis, transition and physical risks were identified based on the two climate change scenarios, considering the size of net sales, operating income, profit margins, and growth potential of the business domains (residential, advanced lifeline, innovative mobility, life science, and energy as the next frontier) that will strategically be grown toward 2030.

Based on the 1.5°C scenario and the 4°C scenario, two axes were set; one axis is whether climate change mitigation progresses or not; and the other axis is decentralization of social systems in rural area or concentration in large cities. Four climate change scenarios were envisaged taking into account the mutual impact of other environmental issues with climate change issues.

Climate change and other environmental issues such as resource circulation, water risks, and biodiversity (aspects of nature) are interrelated and have causal relationships with each other. Also, it is believed that there needs to be consideration and solutions to each of these issues that do not involve trade-offs. Therefore, the response measures were reconfirmed as it was necessary to analyse the relevance with each environmental issue.

Based on the 1.5℃ scenario, the anticipated impact of risks in each business domain were analysed and the results of the correlation analysis between environmental issues is shown in Table 3.

Negative impacts that have significant financial impacts to the Group are considered as risks, and positive impacts are seen as opportunities. In the 1.5°C scenario, social changes including the impact on other environmental issues are expected to become more significant than the 2°C scenario.Taking this into consideration, each scenario is reset and analysed.

The results reaffirm the effectiveness of solutions to the resource circulation challenge as a solution to the climate change crisis. It was also confirmed that solutions that also take into account the impact on biodiversity are more likely to convert risks into opportunities, and that it is essential to promote innovation, such as the development of new materials and technologies.

Table 3: Results of Impact Analysis of Climate Change Risks

Green: New revisions in line with updating to the 1.5 °C scenario **Bold: Innovation-related items**

Type		Climate change risks	Financial impacts	Business risks	Business opportunities	Response / Actions by SEKISUI	Correlation analysis of environmental issues: Climate Change	Resource Recycling	Water Risks	Biodiversity
Transition	Policy regulations	Carbon tax increase	Large	<Medium- to long-term> ·Increase in energy procurement costs ·Decrease in sales due to adding costs to product prices	<Medium- to long-term> ·Acquire business opportunities by differentiating through early response ·Stabilization of energy costs by introducing renewable energy	·Develop plans to promote converting purchased power to renewable energy, using ESG investment framework ·Improve effectiveness through public commitments such as SBT certification	Mitigation Mitigation	– –	– –	– –
		Regulations for energy savings/ low carbon	Large	<Short-term> ·Increase in capital investment to strengthen energy conservation and renewable energy initiatives <Medium- to long-term> ·Increase in introduction costs for renewable energy certificates, etc.	<Short-term> ·Increased sales from energy conservation/storage/ creation businesses ·Increased sales from CO2-regulation compliant products	·Establish ESG investment framework (40 billion yen/3years) **·Develop new energy creation technologies (e.g., perovskite solar cells)** ·Review green procurement standards as appropriate ·Standardize housing with ZEH specifications	Mitigation Mitigation Mitigation Mitigation	– – All –	– – Business –	– – All –
		Policies	Large	<Short-term> ·Increase in renewable energy procurement and waste treatment costs <Medium- to long-term> ·Lose market share from loss of differentiation due to mandating of low-carbon products such as ZEH ·Reduction of business opportunities due to stricter laws and regulations related to resource recycling	<Short-term> ·Increased need for technologies to reduce CO2 during waste incineration <Medium- to long-term> ·Increase in sales of new homes due to expansion of ZEH market from mandatory ZEH specs ·Expanding opportunities for horizontally recycled products such as in-house and industry-wide collection	**·Develop technology for creating ethanol from garbage (e.g., BR)** ·Expand products that enhance sustainability **·Consideration of expanding horizontal recycling of in-house plastic products (e.g., KYDEX buyback system, etc.)** **·Development of services to improve the recycling value of housing products (e.g., Be-Heim)**	Mitigation Both Mitigation Mitigation	Disposal All Disposal Disposal	– Products – –	Living organisms All – –
		Litigations	Medium	<Medium- to long-term> ·Lawsuits against companies using fossil fuels	<Medium- to long-term> ·Increase in business opportunities due to consumer trust earned from commitments to society	·Disclose environmental vision and 2050 GHG emissions reduction targets ·Improve scores in various external benchmarking systems	Mitigation Both	All All	– All	– All
	Technologies	Replacement to low carbon products	Large	<Short-term> ·Increase in re-certification costs due to change of low- carbon materials <Medium- to long-term> ·Changeover to lower carbon materials and processes	<Short- to medium-term> ·Increase in business opportunities for products that enhance sustainability that contribute to low carbonization <Long-term> ·Business expansion through prioritized procurement of resource recycling friendly designed products	·Use of LCA in planning, development and marketing (CFP, environmental impact other than climate change) ·Use of "learn from nature" technologies and continuation of researcher subsidies ·Promotion of renewable energy in factories ·Reduction of factory waste and acceleration of resource recycling **·Product development using bio-derived materials** **·Product development using recycled materials and increasing their use**	Mitigation Both Mitigation Mitigation Mitigation Mitigation	All All Manufacturing Manufacturing Raw materials Raw materials	– Products – – – –	All All – – Plants –
		Development of decarbonization technology	Large	<Medium- to long-term> ·Opportunity loss due to delay in introduction of decarbonization technologies	<Medium- to long-term> ·Expand business opportunities by decarbonizing products ·Creation of new business utilizing decarbonization technologies	**·Development of CCU technologies in collaboration with different industries (e.g., collaboration with ArcelorMittal, S.A.)**	Mitigation	Disposal	–	–
	Markets	Change in consumer behavior	Medium	<Long-term> ·Decrease in sale of new cars ·Opportunity loss due to inability to resource recycling and use decarbonization incentives	<Medium-term> ·Acquisition of incentives through resource recycling and visualization of decarbonized value <Long-term> ·Increase in profitability from shift to higher-performance products ·Expansion of market for ICT-related products	·Efforts to improve resource recycling value through industry collaboration (e.g., CLOMA (for marine plastic issues)) **·Development of highly heat resistant and durable, and other high performance products** **·Development of lightweight solar cells, heat dissipating products**	Mitigation Mitigation Mitigation	Use Use Use	– – –	Living organisms – –
		Market uncertainty	Medium	<Long-term> ·Investments to stabilize power supply for dispersed renewable energies	<Long-term> ·Increase in sales of products to support a more dispersed society	·Sales of houses that realize energy self-sufficiency **·Development of resource recycling technologies (e.g., BR, mat'l waste recycle)**	Mitigation Mitigation	– Disposal	– –	– –
	Reputation	Changes in consumer preferences	Medium	<Short- to medium-term> ·Sales decline due to inability to keep up with sustainable lifestyle preferences <Long-term> ·Decrease in sales due to increased preference for "sharing" over "owning"	<Short- to medium-term> ·Improve corporate brand and expand sales with products that support sustainable living <Long-term> ·Creation of new businesses to meet consumer preferences	·Promotion of sustainable town development business (e.g., ABINC certification of Asaka Lead Town) ·Begin services using housing big data	Both Both	All All	Products Products	All All
		Industry criticism	Large	<Medium- to long-term> ·Investor valuation decline for companies that do not decarbonize <Long-term> ·Decline in evaluation of companies that do not understand the biodiversity impact of decarbonization solutions	<Short- to medium-term> ·Secure stable financing by demonstrating compatibility with resource recycling <Long-term> ·Consideration of nature-positive decarbonization solutions and high evaluation for product development	·Use of renewable energy by purchasing electricity after FIT ·Promotion of reform and use of in-house system for planning and R&D (product environmental impact assessment) ·Promotion of efforts to reduce the impact of nature and information disclosure (e.g., use of Land Use Score Card®)	Mitigation Both Both	– – –	– – –	– All All
Physical	Acute	Frequent typhoons	Large	<Short-term> ·Increase in damage such as plant shutdowns and sales decrease ·Increase in costs to control flooding and overflows ·Decrease in sales due to supply chain disruption <Medium- to long-term> ·Increase in insurance premiums	<Short-term> ·Increase in needs for resilient infrastructure ·Increase in sales of products in areas with a high level of water-related risks ·Increase in needs for equipment/ facilities for disaster preparedness ·Increase in needs for the resilient town development projects	·Understand water risks and implement countermeasures **·Development of highly durable infrastructure** ·Accelerate infrastructure renewal in developed nations (e.g., SPR Method) ·Expand infrastructural business in developing nations **·Development of disaster response products (e.g., drinking water storage systems)** ·In-house fusion mechanism for adaptive product development, task force projects	Adaptation Adaptation Adaptation Adaptation Adaptation Adaptation	– – – – – –	Business Products Products Products Products Products	– – – – – –
		Heavy rains/ droughts	Large							
	Chronic	Changes in rainfall patterns	Medium	<Short-term> ·Increase in costs for restructuring supply chain <Medium- to long-term> ·Increase in heat stroke/other illnesses related to warming ·Increase in air conditioning/cooling costs	<Short-term> ·Increase in sales of heat insulating/heat shielding products <Medium- to long-term> ·Increase in needs for pharmaceutical products/diagnostic drugs that contribute to treatments	·Explain procurement guides to raw material suppliers ·Globally disperse production bases ·Reinforcement of OEM structure in accordance with increase in illnesses	Adaptation Adaptation Adaptation	– – –	Business Business Business	– – –
		Rise in sea level	Medium							
		Rise in average temperature	Medium							

<Table notations> Term: Short-term: Less than 3 years; medium-term: Between 3 and 6 years; long-term: 6 years or more
Scale of financial impacts: Small: Less than 0.1%; medium: Between 0.1% and 1%; large: 1% or more impact (on financial indicators)

<Correlation analysis of environmental issues> Climate change issues: Mitigation Adaptation All
Resource recycling issues: Raw materials Manufacturing Use Disposal All
Water risk issues: Business (Activity) Product All
Biodiversity issues: Organisms Plants All

The "Financial Impacts" in the table were evaluated in three categories: large, medium, and small, in light of the magnitude of the impact on related financial indicators.
The time frame for risks and opportunities to materialize is classified into three levels: short-term (less than 3 years), medium-term (more than 3 and less than 6 years), and long-term (6 years or more). Additionally, changes in risk analysis and responses due to the use of the 1.5°C scenario are shown in green (Table 3).

4-2. Scenario Analysis (Risks and Opportunities)

<Methodologies and Results of Scenario Analysis>

In the scenario analysis, several driving forces were extracted that were predicted to affect the future of each business domain (residential, advanced lifeline, innovative mobility, life science, and energy as the next frontier) and future scenarios with attention to driving forces that were assumed to have a large impact on the Group when future uncertainties were taken into account.
For example, in innovative mobility, a society in which vehicles with zero CO_2 emissions (ZEV: Zero Emission Vehicle) are the mainstream and another society dominated by conventional internal combustion vehicles as one of the driving forces, were considered. An axis was then set to study a scenario in which climate change has been mitigated, and another one in which climate change has advanced. In the area of advanced lifeline, it was assumed that the evolution of a recycling-oriented society can be a driving force, so one axis was set as whether the society will be a "recycling use" society or an "emission and disposal" society, and another axis as a scenario in which climate change has been mitigated and another in which climate change has advanced.
Then, scenario analysis results around driving forces that were determined to be highly common in the Group's business fields were integrated. The results are shown in Figure 7. The axis with high commonality is the driving force to determine whether social systems such as town design and energy will become "centralized" (urban concentration and centralized management) or "decentralized" (local production and local consumption). Additionally, as for climate change scenarios, a scenario with advanced mitigation of climate change and a scenario with advanced climate change as another scenario axis were set, assuming four scenarios related to the future of the Group's businesses in the four quadrants.

1.5℃ scenario

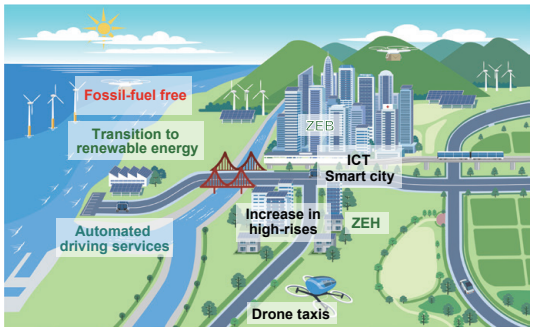
Tightened carbon tax / exhaust gas regulations,
accelerated resource circulation, reduced water risk, mitigated impacts on aspects of nature

Scenarios involving various measures taken to control climate change

Phasing out fossil fuels

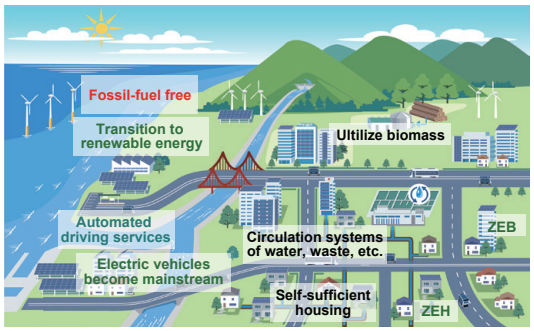
(A) Decarbonized smart society

- Compact+networked
- High-rise housing
- ICT /transport services



(B) Sustainable circular society

- Local production and consumption of energy, biomass plastics
- Water circulation, including wastewater
- Mobility services, decrease in private cars
- Low-rise suburban housing developments



Electric vehicles

Scenarios involving increased urban concentration

Urban concentration

Concentrated power generation

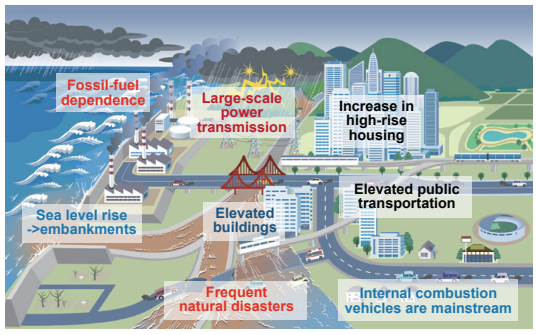
Dispersed power generation

Decentralized communities

Scenarios involving rural decentralization

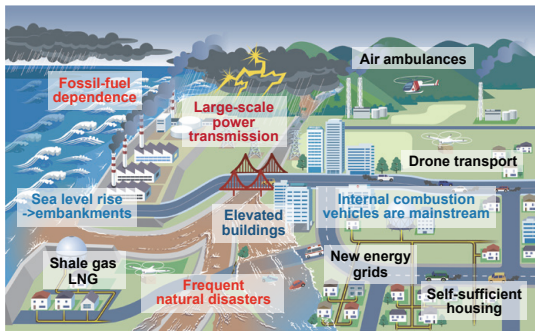
(D) Mass consumption society

- Competition with developing nations for fossil fuels
- Increase in land prices/high-rise housing
- Sharing services in urban areas
- Disaster-resistant urbanization



(C) Local production and local consumption society

- Dispersed energy grids
- Economic development of emerging nations
- Strong demand for detached housing
- Development of drone technology



Internal combustion vehicles

Depending on fossil fuels

Scenarios involving preparation for higher temperatures and frequent disasters due to climate change

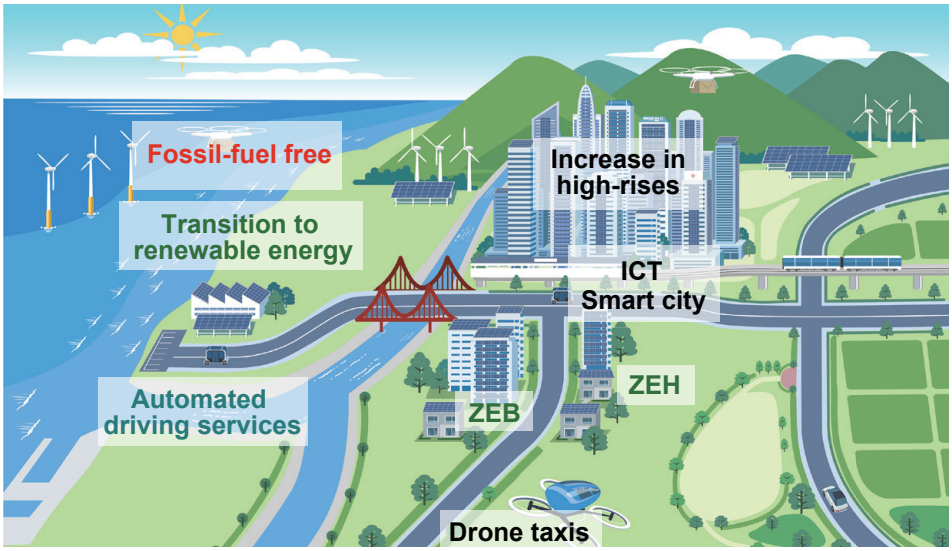
4℃ scenario

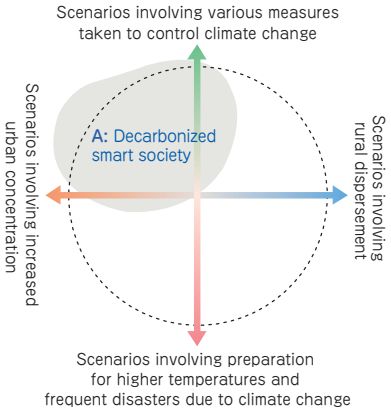
Frequent natural disasters, delayed resource circulation system,
increased water risks, increased negative impact on nature

Figure 7: Four Scenario Societies

Societies based on each of the four scenarios have been illustrated and show in Figure 7. The next page is a summary of the results of the analysis of possible risks and opportunities for the Group in these possible societies and the Group's strategy to adapt if the society depicted in each scenario is realized.

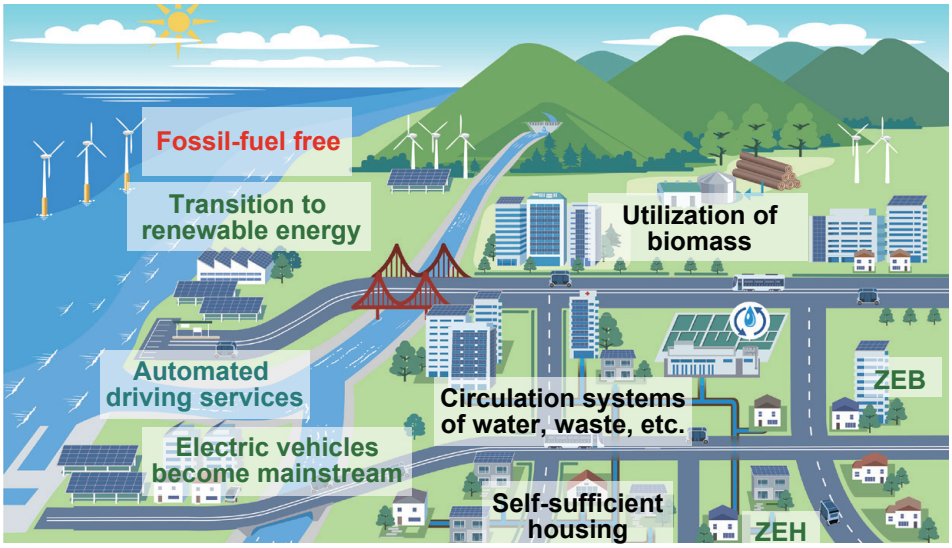
Scenario (A)
Decarbonized smart society scenario (1.5℃ & urban concentration scenario)

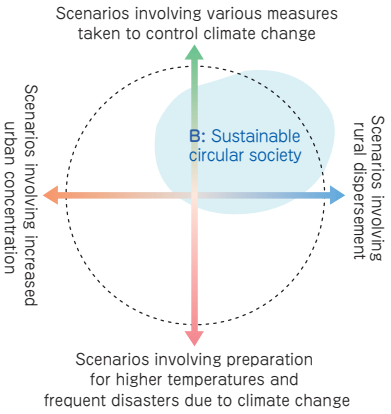




Opportunities	· Increased demand for smart infrastructure, remote control systems, etc. → Advanced technology utilization and expand services for infrastructure · Increased demand for power generation/storage products → Higher performance of electronic/energy related products · Expanding needs for decarbonized products and technologies → Advance development of decarbonization technologies and expand product sales
Risks	· Decreased car sales due to transition to mobility services → Decreased sales of housing and mobility related products · Accelerate conversion to renewable energy → Energy procurement costs increase due to increased demand for renewable energy · Decreased demand for low-rise housing → Decreased sales of housing related products
Response by SEKISUI	[Production activities] Convert electricity and fuel use to renewable energy (installation of solar panels, use electricity certificates, convert fuel, etc.) [Housing] Standardize ZEH specifications [Energy] Accelerate development and social implementation of perovskite solar cells and expand storage battery business [IT] Material development to promote improvement of ICT (heat dissipating materials, materials for LED and OLED) [Resource recycling] Development of services to improve the recycling value of housing products ("Be-Heim"), consideration the expansion of recycling systems for plastic products

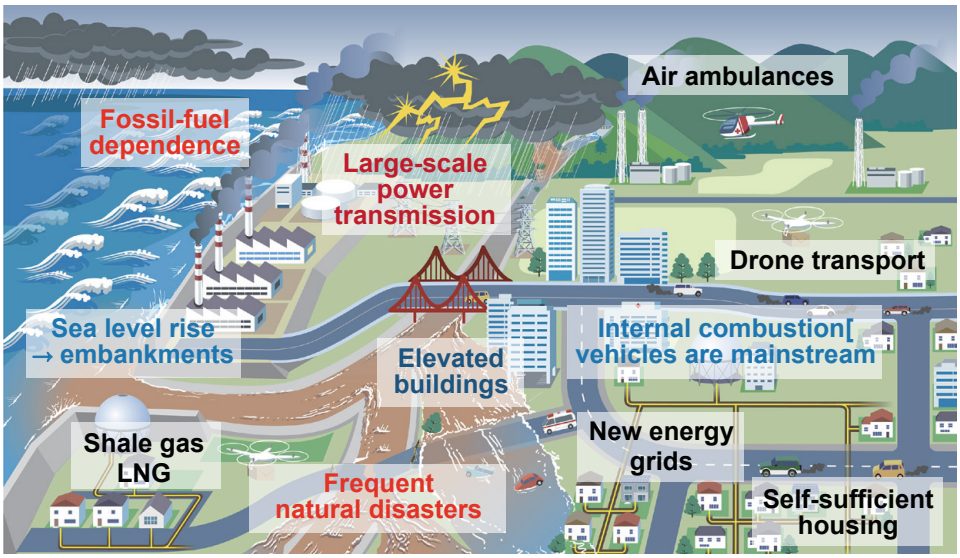
Scenario (B)
Sustainable circular society scenario (1.5℃ & decentralized communities scenario)

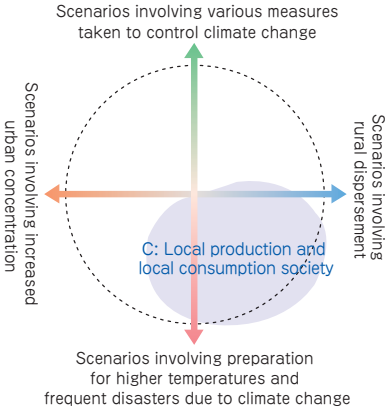




Opportunities	· Localized power generation → Increased demand for power generation, storage and related technologies · Expanded circulation of resources such as electric power, water, carbon, etc. → Increased demand for circulation infrastructure · Increased demand for housing with ZEH specs · Expanding needs for decarbonized products and technologies → Advance development of decarbonization technologies and expand product sales
Risks	· Decreased car sales due to transition to mobility services → Decreased sales of housing and mobility related products · Accelerate conversion to renewable energy (decentralized) → Energy procurement costs increase due to increased demand for renewable energy · Decreased reputation among customers and investors due to failure to decarbonize → Decreased capital procurement capability
Response by SEKISUI	[Production activities] Convert electricity and fuel use to renewable energy (installation of solar panels, use electricity certificates, convert fuel, etc.) [Housing] Standardization of ZEH specs, expansion and promotion of sustainable town development business [Energy] Promote the spread of energy self-sufficient housing (solar panels, storage batteries), contribute to local energy production and consumption through TEMS, and accelerate the development and social implementation of perovskite solar cells [Vehicles] Provide highly functional materials that provide additional performance to vehicles and aircraft (S-LEC wedge-shaped HUD interlayers, KYDEX sheets, CFRTP) [Carbon Capture Utilization and Storage] Development of CCUS technology (using chemical looping reaction) and its social implementation in collaboration with other companies [Resource recycling] Full scale social implementation of BR technology, development of CCU technologies in collaboration with other companies

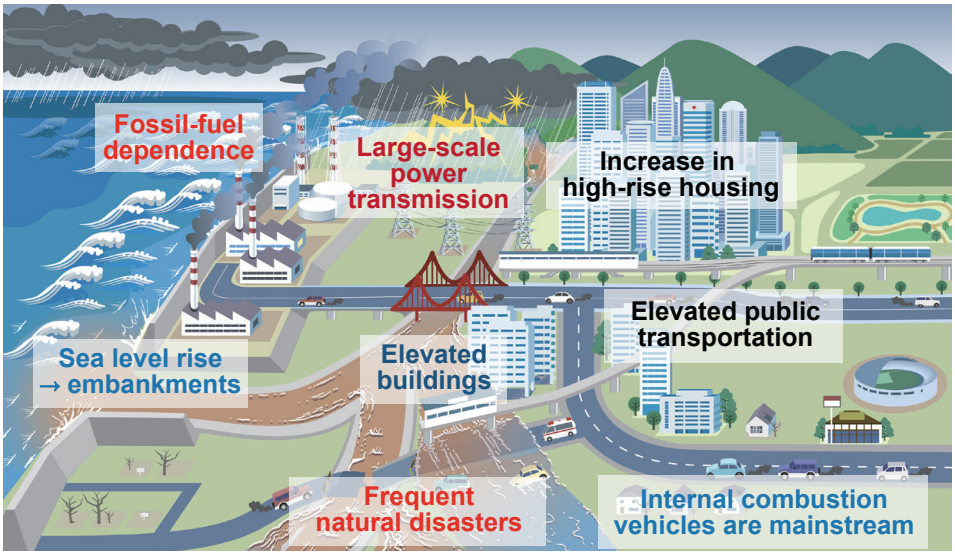
Scenario (C)
Local production and local consumption society scenario (4℃ & decentralized communities scenario)

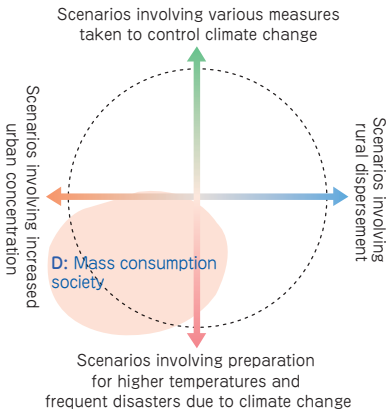




Opportunities	· Promoting resilient infrastructure and autonomous driving infrastructures → Increased sales of highly durable infrastructure materials and construction services · Creation of market of new energy grids → Needs for control systems and energy infrastructure technologies
Risks	· Increased raw material and energy costs due to disaster-resilient supply chain, logistics, and energy security measures · Increased factory relocation costs in locations vulnerable to natural disasters · Increased manufacturing costs and raw material costs caused by deterioration of ecosystem services due to disasters · Increased human cost due to increase in diseases caused by global warming · Extensive damages due to fragmentation of infrastructure in the area
Response by SEKISUI	· At the managers level of operating companies/business sites, understand risks in each region and site, formulate BCPs, and consider risk reduction measures · Reinforce sustainable raw material procurement system [Housing] Develop town development business (expand disaster resilience services) [Energy] Explore HEMS and TEMS technology for building smart grids that can also serve as a disaster countermeasure [Infrastructure] · Expand businesses that contribute to more resilient water infrastructure (Renewal: SPR method, New construction: Collaboration with a Vietnamese company) · Expand rehabilitation technology to improve durability of transportation infrastructure ("Utsuku Sheet", "InfraGuard") [Life science] Reinforcement of OEM structure for pharmaceutical products

Scenario (D)
Mass consumption society scenario (4℃ & urban concentration scenario)





Opportunities	· Promoting resilient infrastructure and autonomous driving infrastructures → Increased sales of highly durable infrastructure materials and construction services · Increased needs for energy-related products for large-scale power generation → Increased sales of products related to stabilizing systems and improving efficiency of power generation
Risks	· Increased raw material and energy costs due to disaster-resilient supply chain, logistics, and energy security measures · Increased factory relocation costs in locations vulnerable to natural disasters · Increased human cost due to increase in diseases caused by global warming [Housing] Decreased demand for low-rise housing → Decreased sales of housing-related products · Increase in manufacturing costs and raw material costs caused by deterioration of ecosystem services due to disasters
Response by SEKISUI	· At the managers level of operating companies/business sites, understand risks in each region and site, formulate BCPs, and consider risk reduction measures · Reinforce sustainable raw material procurement system [Infrastructure] · Expand businesses that contribute to more resilient water infrastructure (Renewal: SPR method, New construction: Collaboration with a Vietnamese company) · Expand technologies to improve durability of transportation infrastructure ("FFU", "Utsuku Sheet", "InfraGuard") · Contribute to more stable power transmission by burying power cables underground ("CC-Box") [Life science] Reinforcement of OEM structure for pharmaceutical products

<Summary of Scenario Analysis>
The Group's housing and infrastructure-related products are all designed with resilience and are highly durable and resistant to disasters. In the 4°C scenarios (C) and (D) assumed in the scenario analysis described in Section 4-2, materials or renovation methods that provide a high level of durability or disaster-resitant capabilities can contribute to the solution of issues and expand businesses. In the 1.5°C scenarios (A) and (B) where mitigation of climate change is pursued, demand for renewable energy will increase even more, regulations will be tightened, and changes in consumer preferences will become more apparent. In addition, it is expected that resource circulation efforts will be accelerated and economic values will become apparent. It is believed that solving issues and capture business opportunities can be contributed to through ever more ambitious efforts to curb GHG emissions, solar-equipped houses to boost the shift to renewable energy, new energy-creating technologies, and the development of materials to make vehicles and aircraft more energy-efficient.
In such societies, it was naturally thought that water risks and impacts on biodiversity (aspects of nature) would also be mitigated.
In addition to climate change, there are uncertain factors in technological development in various industries. In both cases, preparation is confirmed and also ready to transform and risks into opportunities, whether in the development and enhancement of products for the risks assumed in the case of increased urban concentration, or in the technologies required in the case of increased population decentralization.

4-3. Validation of Climate Change Strategies

The following items were confirmed as valid in a verification of the Group's climate change issue strategies.
(1) Carbon efficiency (environmental performance) trends
(2) Correlation between carbon efficiency (environmental performance) and economic performance
(3) Calculation of stakeholder comprehensive income using impact-weighted accounting methods (taking into account impacts on resource circulation and biodiversity)

<(1) Carbon Efficiency (Environmental Performance) Trends>
In order to verify how efforts that address climate change are affecting management, two indicators of carbon efficiency management (environmental performance) have been monitored: "(i) Net sales per GHG emissions", and "(ii) Earnings (EBITDA) per GHG emissions".
Figure 8(a) shows the carbon efficiency in business activities, and Figure 8(b) shows the carbon efficiency across the supply chain. As in the previous medium-term management plan, for the current medium-term management plan (2023-2025), an increasing trend for both (i) and (ii) can be seen, even when looking at business activities and the supply chain as a whole.
(ii) Earnings per unit of GHG emissions (EBITDA) from business activities confirms that the conversion to renewable energy is progressing at both domestic and overseas business sites and that this is having an ongoing positive impact on management.

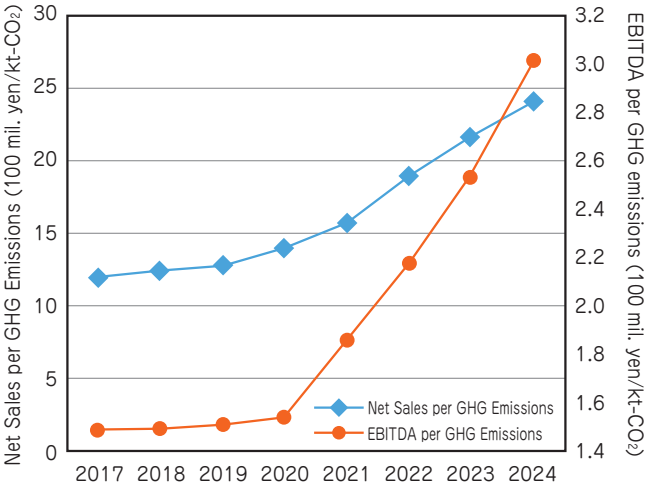


Figure 8 (a): Carbon Efficiency in Business Activities

*Business activities: Scope 1+2

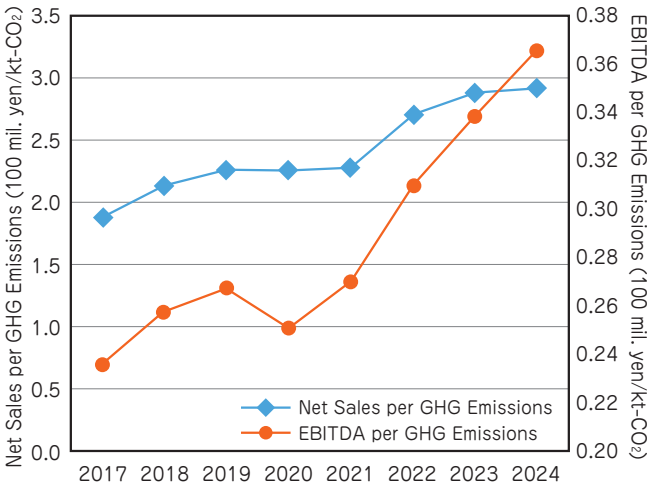


Figure 8 (b): Carbon Efficiency Across the Supply Chain

[Reference] Calculation methods of the two indicators
Net sales/GHG emissions
(net sales per carbon = 100 mil. yen/kilotons-CO_2)
EBITDA/GHG emissions
(earnings per carbon = 100 mil. yen/kilotons-CO_2)
[Reference] EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization

<(2) Correlation Between Carbon Efficiency (Environmental Performance) and Economic Performance>

The impact of initiatives on management to address issues related to climate change was further examined by confirming the correlation between "(i) net sales per unit of GHG emissions", an indicator of management's carbon efficiency (environmental performance), and "(ii) earnings per net sales (EBITDA)", an indicator of management's economic performance.

The actual values of the two indicators in business activities from FY2017 to FY2024 are plotted in Figure 9, along with the target based on the FY2030 long-term vision. In FY2024, ESG management was used as a strategy to improve "net sales per unit of carbon" while maintaining stable earnings.

The results of this verification indicate that the strategies being pursued based on the long-term vision through to FY2030 are correct. Therefore, the current medium-term management plan (2023-2025) aims to continue to work toward our long-term vision, aiming for company growth that is both economically and environmentally sound.

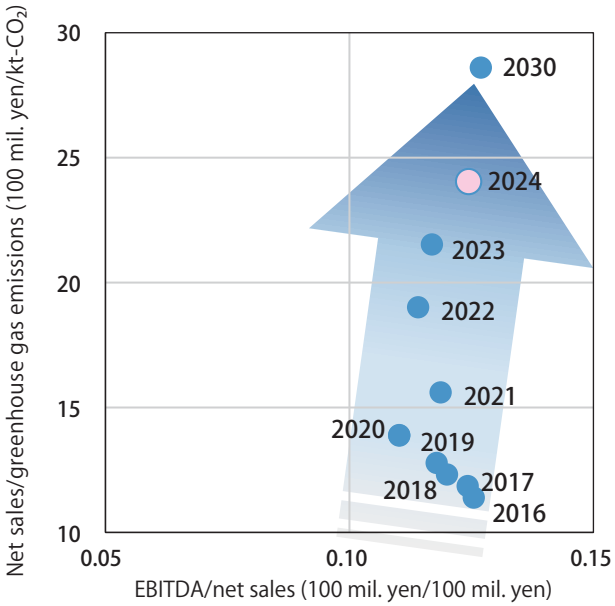


Figure 9. Correlation between Carbon Efficiency (Environmental Performance) and Economic Efficiency of Business Activities

<(3) Stakeholder Comprehensive Income Using Impact-Weighted Accounting Methodology>

Climate change is affecting the entire earth. Initiatives to address climate change are thought to affect not only the Group's shareholders, but also multiple stakeholders such as customers, business partners, employees, and local communities. Therefore, in order to verify the validity of the strategies, it is necessary to consider the impacts on stakeholders from a bird's-eye-view and comprehensive perspective, and the multi-stakeholder comprehensive income was calculated using impact-weighted accounting method.

Impact-weighted accounting refers to the concept of integrating accounting and impacts by converting the impacts of corporate activities on stakeholders as a whole into monetary values and adding or subtracting them from profits, thereby ascertaining the corporate value for stakeholders as a whole. In this validation, comprehensive earnings were calculated using the following calculation method. LIME2 concept was adopted when converting economic losses on environmental aspects into economic values.

For human investment in natural capital, stakeholder comprehensive income was calculated from value of employment created based on two approaches.

Table 4: Approach to Human Investment Related to Natural Capital

Approach 1	Value of employment created for employees tackling climate change issues
Approach 2	Value of employment created for personnel driving climate change efforts

[Calculation Method]Stakeholder Comprehensive Income = (Profit for the period + Value of employment created based on Approach 1 or Approach 2 + Economic values of contribution to the reduction of greenhouse gas emissions from products + Economic values of effects on environmental aspects other than climate change issues from products) - (Economic losses from greenhouse gas emissions from business activities including up and downstream in the global value chain + Economic losses from environmental aspects other than climate change issues from business activities including up and downstream in the global value chain)

Figure 10 (a) shows the ratio of stakeholder comprehensive income to net income calculated using impact-weighted accounting.

For human investment in natural capital, stakeholder comprehensive income differs due to differences in the value of employment created based on the two approaches. It is 3.0 when Approach 1 from Table 4 is applied and 1.8 when Approach 2 is applied.

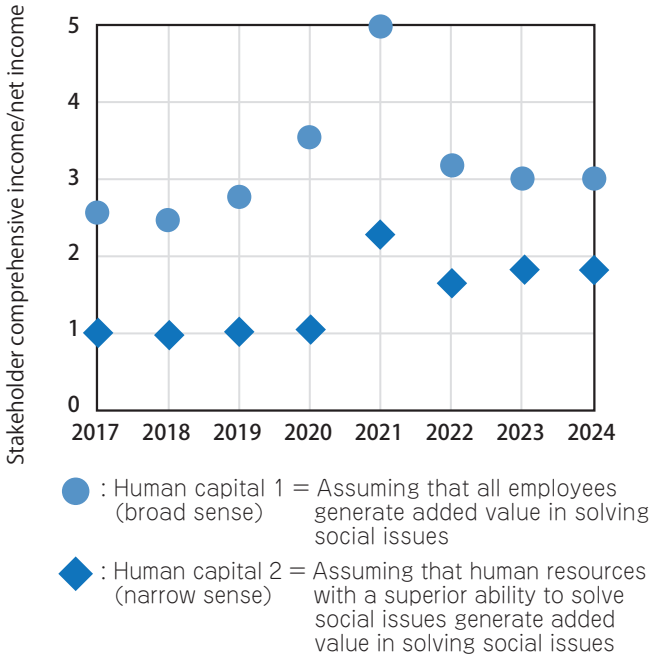


Figure 10 (a): Stakeholder Comprehensive Income Against Net Income

Regardless of the approach, it was confirmed that stakeholder comprehensive income continued to be generated above net income. Furthermore, Figure 10 (b) shows the positive and negative impacts at each stage of the product's life cycle. (Figure 10 (b) reflects the respective investments in broadly defined human capital 1 based on Approach 1 and narrowly defined human capital 2 based on Approach 2.) Applying the impact-weighted analysis to each process of the product life cycle made it possible to identify in which process positive impacts for multi-stakeholders, and negative impacts on external environments occur in addition to value shown by financial indicators.

<Summary of Validation>

Based on the above analysis, it was reaffirmed that the initiatives and planned measures that are currently being implemented are expanding the positive impact, reducing the negative impact, and contributing to the enhancement of corporate value.

In order to solve issues related to climate change in the future, strategies will be developed and measures implemented for each process in the product's life cycle so that the positive impacts can be further expanded and the negative impacts can also be further reduced.

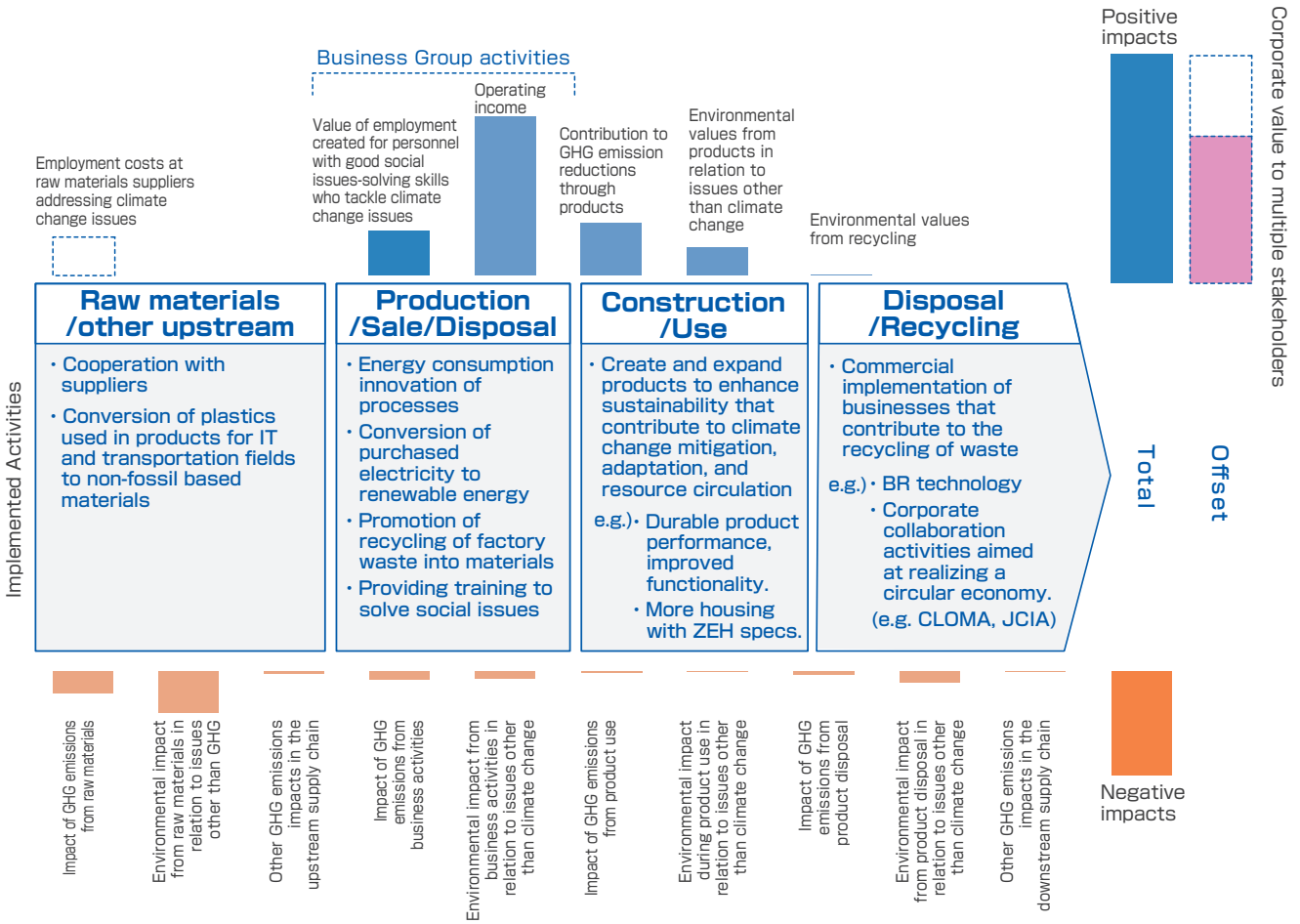


Figure 10 (b): Details of Positive and Negative Impacts on Corporate Value Over the Life Cycle of Products Using Impact-weighted Accounting Methods

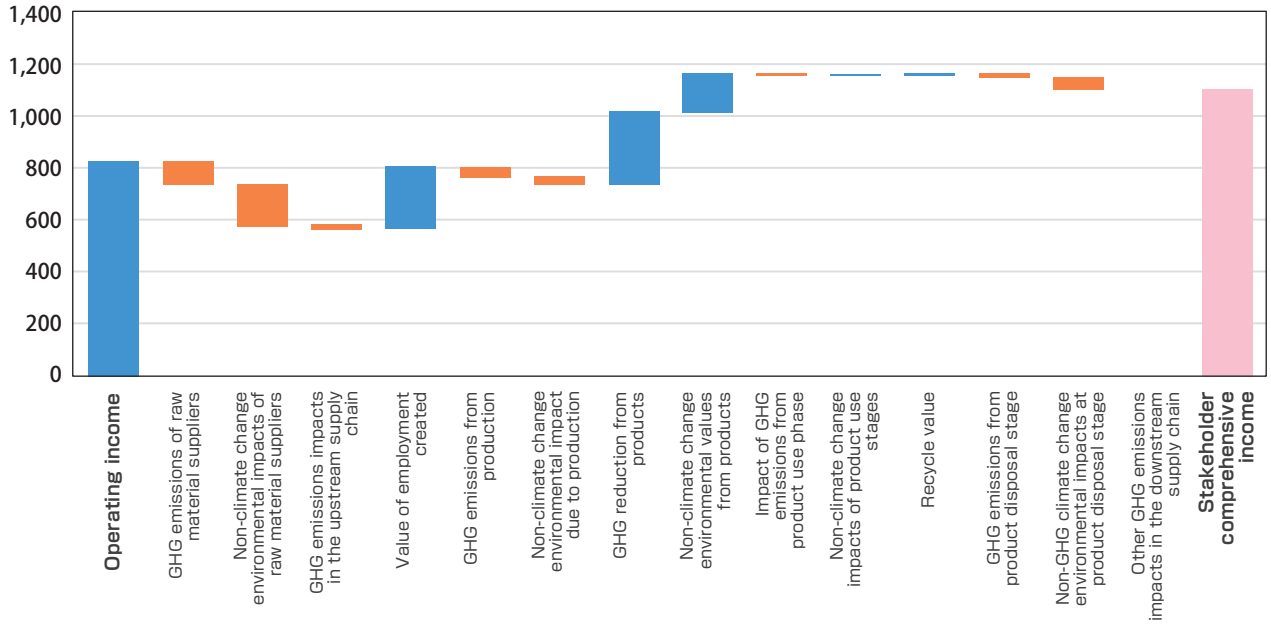


Figure 10 (c): Composition and Distribution of Stakeholder Comprehensive Income

[Reference] Approach to Human Investment in Impact-Weighted Accounting Using Human Resource Indicators of Ability to Contribute to Solving Social Issues

[Human Resource Indicators of Ability to Contribute to Solving Social Issues and How to Calculate Impact Using These Indicators]

In the current medium-term plan, the SEKISUI CHEMICAL Group is backing employee growth through experience in their current jobs. The Group also provides educational opportunities for nurturing the ability to recognize social issues and to take action and solve them. As for training, in addition to the knowledge aspect, the aim is to change employee consciousness by having them proactively engage in activities with the resolution of social issues (that is, SDGs) in mind. Moreover, change is also being encouraged from the behavioral aspect through activities to improve our ability to contribute to solving social issues (that is, SDG contribution activities) (Figure 11).

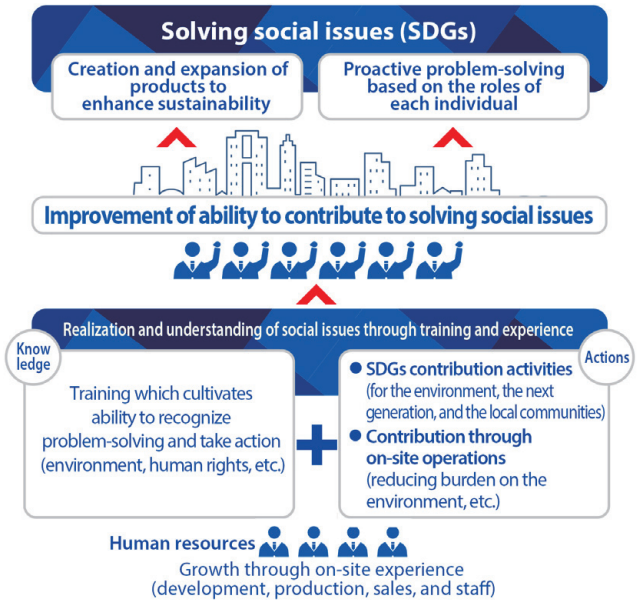


Figure 11: Illustration of Training that Develops the Ability to Contribute to the Solving of Social Issues

To encourage the growth of employees, the SEKISUI CHEMICAL Group created human resource indicators in 2017 to serve as a guide for individual progress and to encourage self-improvement by ascertaining the current status of employees' knowledge and actions required to solve social issues, including environmental issues, and is using the indicators while reviewing them for each mid-term plan.

In the current medium-term plan, the Group believes that it is important to improve the level of knowledge and actions to develop the ability to contribute to solving social issues. Thus, eight items (four knowledge items and four behavioral items) required for personnel to contribute to solving social issues have been set as human resource indicators to verify personnel's ability to contribute to solving social issues (Figure 12).

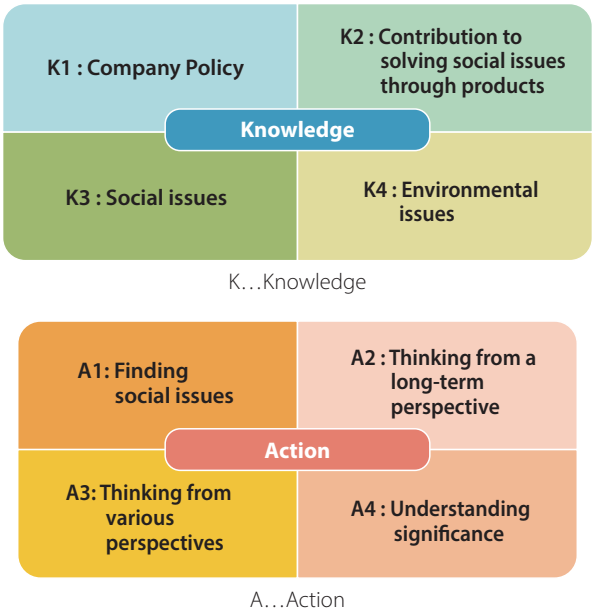


Figure 12: Knowledge and Action Required for Personnel to Contribute to Solving Social Issues

Once a year, a questionnaire called the "Survey on ability to contribute to solving social issues" is sent to our employees in Japan to measure their ability to contribute to solving social issues necessary to "realize sustainable society, we support the basis of LIFE and will continue to create 'Peace of Mind for Generations to Come' " (Vision 2030) and grasp each employee's knowledge and ability to take action.

The questionnaire is filled out with employees self-checking to determine the extent of their knowledge on social issues, or whether they are taking actions that will lead to solving issues. By regularly conducting this questionnaire, the extent to which our self-awareness of our contribution to solving social issues has improved is measured. It is believed that as self-awareness improves, each individual will be more aware of their contribution to solving social issues in their work.
Employees are essential assets to a company that solves social issues and provides benefits to society. It is believed that it is important in the short- and medium- to long-term to make investments in line with employee growth, so we have positioned cost of job creation as a human investment in natural capital in our impact-weighted accounting framework (Approach 1 in Table 4).
In particular, it is important it to be driven by employees who have strong issue-solving skills in to accelerate solving social issues.
The results of the questionnaire on the ability to contribute to solving social issues are classified into five levels from A to E, and it is believed that it is even more important to invest in personnel with the ability to contribute in the top two levels, A and B, and training is conducted to increase the number of such personnel (Approach 2 in Table 4).
Personnel corresponding to the percentage of A and B are shown below (Table 5).

The impact of human investment in personnel that drive the solving of social issues is calculated as the cost to create employment for all employees times the percentage (%) of personnel that drive the solving of social issues.

Table 5: Percentage of Personnel Driving Solutions to Social Issues

(%)

	2017	2018	2019	2020	2021	2022	2023	2024
Percentage of employees with Levels A and B in the survey on ability to contribute to solving social issues	2.8	7.2	6.7	6.7	10.1	7.2	20.4	19.4

※2017-2019：Composed and implemented the assessment details as an environmental human resources check.
2020：Same status as FY2019 as it was not implemented.
2021-2022：Composed and implemented the assessment details as a survey on ability to contribute to solving social issues.
2023-2025：Updated and implemented the assessment details as a survey on ability to contribute to solving social issues.

Employees will continue to be provided with training programs to improve the eight qualities necessary for personnel to contribute to the solving of social issues, and by using the Survey on Ability to Contribute to Solving Social Issues, the growth of each employee's knowledge and action capabilities will be checked while promoting training and activities to strengthen weak points and improve strong points, thereby increasing the benefits of solving social issues and accelerating the creation of profits.

[Correlation with Corporate Value]

It is believed that increasing the number of personnel who drive the solving of social issues in our Group will create a virtuous cycle as shown in the figure on the right, and contribute to the long-term improvement of corporate value. And in STEP 4 to 6, as return on invested capital (ROIC) increases and the shift to sustainable businesses and products progresses, society will admire the high profitability of the company and recognize that it is a sustainable company.
As a result, we will become a company that "grows by solving social issues" as envisioned in our long-term vision.

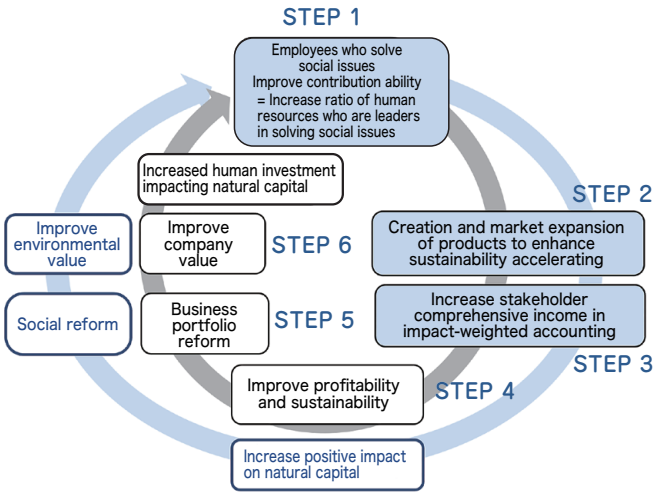


Figure 13: Virtuous Cycle in Improving Employees' Capability to Contribute to Solving Social Issues

STEP	Indicators	What can be confirmed by indicators
STEP 1 Improve the ability of employees to solve social issues	Ratio of human resources* who are leaders in solving social issues *Leaders with a deep knowledge of social issues and strong problem-solving abilities	Status of the sustainable business plan
STEP 2 Creation and market expansion of products to enhance sustainability accelerating	Net Sales of Products to Enhance Sustainability and Premium Quota Income	Creating products that contribute significantly to solving social issues results in high added value, improved profit rate, and a growing market
STEP 3 Increase stakeholder comprehensive income in impact-weighted accounting	Comprehensive Income in Impact-weighted Accounting	Provide economic, environmental, and social value to and expand comprehensive income for stakeholders (benefits)

4-4. Impacts of Risks and Opportunities Related to Climate Change on the Organization's Businesses, Strategies, and Financial Planning

<Impacts of Climate Change on Businesses and Strategies>

The risks posed by climate change can also be opportunities. The SEKISUI CHEMICAL Group formulates strategies and plans to address medium- to long-term climate change risks in order to reduce and convert these risks into opportunities for products and services, supply or value chains, R&D investments, and operations.

In addition, efforts based on these strategies will lead to the improvement of corporate value and comprehensive earnings are explained in Section 4-3.

<Impacts of Resource Recycling Initiatives on Strategies>

[Resource Circulation Policy and Strategy]

Promoting resource circulation efforts will accelerate decarbonization efforts. In FY2020, SEKISUI CHEMICAL Group established a policy on resource circulation along with long-term targets, and formulated a resource circulation strategy with a roadmap (Figure 14). In 2050, our Group is aiming to achieve a circular economy that delivers both resource recycling and economic efficiency.

Group Policy
(1) Promote innovations that contribute to resource circulation
(2) Expand the use of non-fossil fuel-based materials and recycled materials in our business activities
(3) Maximize resource recovery during the entire product life cycle

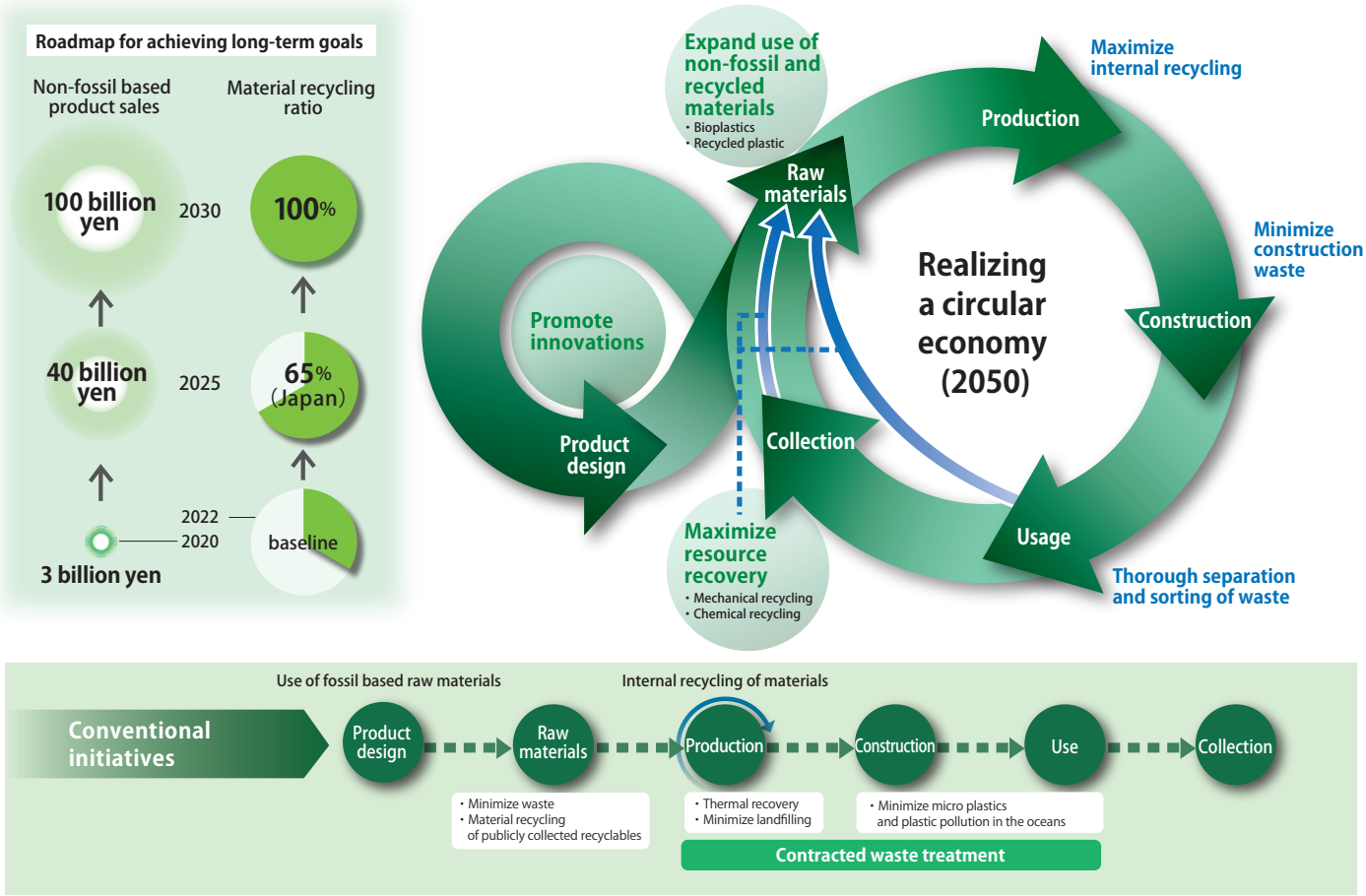


Figure 14: Outline of Resource Circulation Strategy

[The Impact and Outcome of Resource Recycling on Climate Change and Other Environmental Issues]

Instead of simply being satisfied with the areas of waste and recycling in the domain of resource recycling, the Group positions it as a strategic, overarching driver for complex issues such as dealing with climate change, achieving a carbon neutral society, and conserving biodiversity. In particular, efforts in switching raw materials to renewable resources and expanding the range of circular products not only mitigates transitional risks accompanied by climate change, they are also important elements that present opportunities for new growth as a company.

Based on this approach, a logic model has been created which systematically organizes the indicators (management indicators) for evaluating and managing the output needed to create Group initiatives and results (outcome) for environmental issues including resource recycling (Figure 15). This model systematically organizes the economic and environmental impact of resource recycling efforts on corporate activities as an outcome (results). At the same time, the Group verified indicators for assessing output. Doing so helped visualize the synergistic effect that resource recycling has on promotion of decarbonization and reduction of water and nature risks, further enhancing strategic consistency.

The logic model revealed, for example, that "net sales of products that contribute to resource recycling" is a key strategic indicator for decarbonization or improved resource efficiency, and that the "waste plastic recycling rate" is a composite indicator that has a ripple effect reducing costs by reducing raw materials. Going forward, the Group may consider other indicators for promoting resource recycling, such as "recycled material conversion rates" and renewable resource usage rates, etc., to bolster management indicators coupled with strategies.

The management indicators that were reconfirmed in the logic model quantitatively manage natural capital and help visualize the positive impact between natural capital and financial capital (positive relation), and one could say that they are a core element in supporting sustainable Group growth and corporate value.

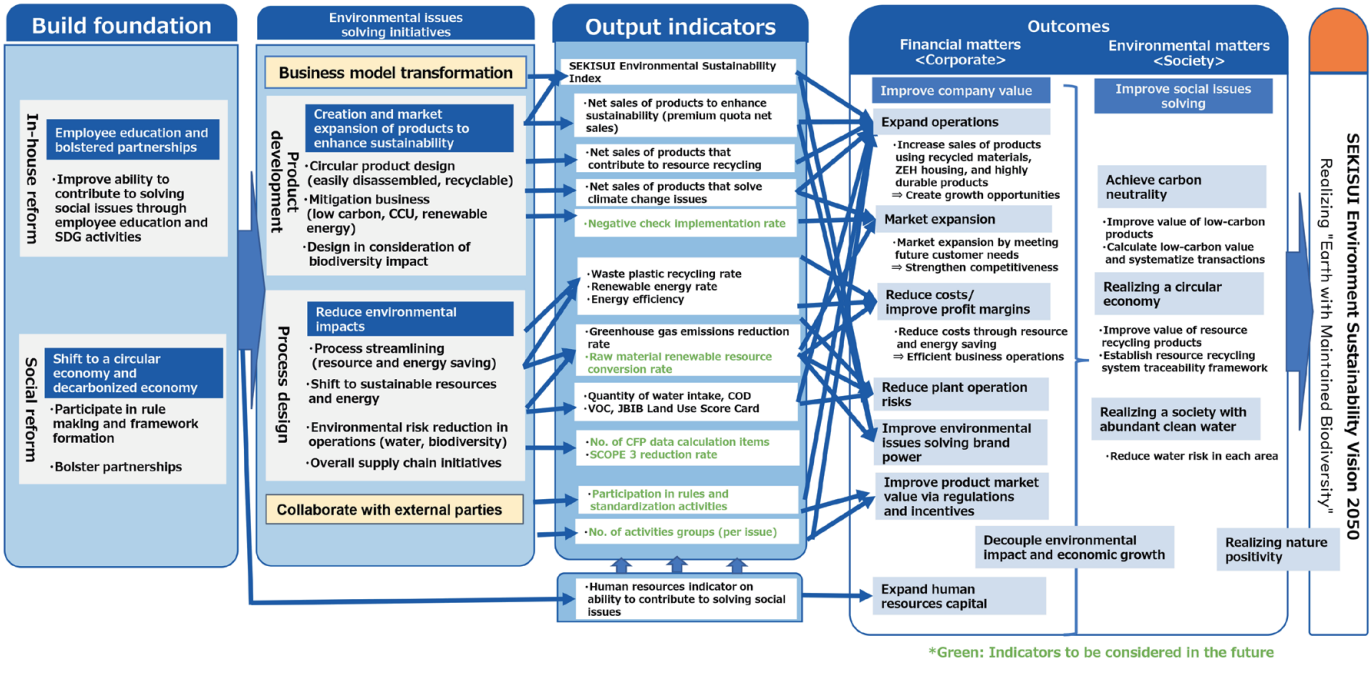


Figure 15: Environmental Issue Logic Model Including Resource Recycling

[Resource Recycling Progress Indicators]
In keeping with the logic model described above, the Group checks results according to the following indicators to assess the progress of efforts (Table 6).

Going forward, the Group will accurately identify the results of initiatives and consider establishing new indicators and targets so that progress can be appropriately reported in dialogue with stakeholders.

Table 6: Roadmap for Achieving Long-term Resource Circulation Targets

		2020-2022	By 2025	By 2030
Business strategy	Net sales of products to enhance sustainability that contribute to resource circulation (Base year: 2020)	1.1 times	1.7 times	2 times or more
Raw material resource conversion	Net sales of products not derived from fossil fuels and using recycled materials	3 billion yen	40 billion yen	100 billion yen
Recycling of waste	Rates for recycling waste plastic into new materials	Analyse current conditions and set baselines	65% (Japan)	100%

[Examples of Products and Services]

<Case Study 1> Housing Adapted to Climate Change

Assumed Risk

Over the last several years, the effects of climate change have affected not only regulatory risks but also physical risks. Housing that contributes to mitigation risks will bring economic benefits to customers and inhibit control global warming to society. On the other hand, demand will naturally decline for houses with low disaster resistance and services with insufficient consideration.

Converting to Opportunities

Houses provided by the Group "SEKISUI Heim" are highly reliable disaster resistant product that contributes to the adaptation to climate change. Prefabricated modular houses, which are more efficient to produce at plants, are also likely less susceptible to disasters triggered by climate change. Also, they can be provided quickly as temporary housing when residents have evacuated during disasters. Presumably, such housing is more adaptable to climate change in terms of production and construction methods. Highly reliable "SEKISUI Heim" not only reduces physical and psychological burdens during evacuation, but even after using the house as a shelter, it is possible to move it to another location and reuse it by performing necessary maintenance. These houses can also contribute to rebuilding lives and recycling resources.
"SEKISUI Heim" has high thermal insulation and airtightness. Furthermore, by installing air conditioning systems such as "Kaiteki Airy", it is possible to provide housing that enables comfortable living with little energy even when global warming is progressing due to the effects of climate change.

Such ventilation systems also have the effect of controlling infectious diseases by preventing the spread of viruses indoors.

The ratio of newly built detached houses that met Net Zero Energy House (ZEH) standards in FY2024 was 95%. By installing storage batteries that can store electricity generated by solar panels in houses, that electricity can be used in the event of natural disasters that occur frequently due to climate change. The Group has proposed the following storage battery development and designs to ensure utility during disasters.
(1) Increasing storage battery capacity while at the same time decreasing the size of the battery.
(2) To prevent the batteries from being damaged by flooding, storms, and such like, it is proposed that they be installed indoors or on the second floor.
As a result, the number of storage batteries installed is increasing every year. In addition, the "V to H" system, which connects solar houses with EVs, enables customers to travel to safe locations and transport goods even in the event of power outages due to disasters. Equipment and services will continue to be provided with this kind of reduced disaster adaptation to climate change in mind.

<Case Study 2> Disaster Resilient Urban Development

Assumed Risk

To adapt to water-related disasters caused by the effects of climate change, it is necessary not only to improve the adaptability of housing, but also to make entire towns and communities resilient to disasters.

Converting to Opportunities

In 2018, SEKISUI CHEMICAL launched the "Safe & Sound Project", a community development project to think about the meaning of resilient communities and how to solve issues. This took into consideration community development projects based on the fusion of the Group's technologies. The first town development project that served as the model is "Asaka Leadtown", which was developed in Asaka City, Saitama Prefecture, and was opened to the public and started selling housing lots in 2019.
Examples of products provided by the Group, such as resin concrete pipes (RCP) and rainwater storage system "Cross-Wave", have been installed to temporarily store storm water during torrential rains and typhoons, and to control flooding of rivers and houses. In addition, as a means of reducing damages caused by water disasters in communities and supporting reconstruction, installation of equipment, such as an emergency temporary toilet system in parks and schools that serve as evacuation sites in various regions, are proposed.
Furthermore, while promoting development of towns and communities that lead to improvement of the value of the towns while conducting their original town management, nine projects with a total project cost of about 50 billion yen have been started over the period from the previous mid-term business plan (2020 to 2022) to the current mid-term business plan (2023 to 2025). Of this amount, sales of 20 billion yen are planned for FY2025.

<Case Study 3> Promoting Resilient Infrastructure in Developed Countries

Assumed Risk

As risks such as water disasters caused by climate change increase, there is a need to make water supply and sewer systems and other infrastructure more resilient. In particular, water risk is an issue that affect some regions more than others. In developed countries, many infrastructures are outdated and have been constructed over 50 years ago, and there is a need for construction methods that can renovate infrastructure in a short construction period while reducing the burden on energy or resources.

Converting to Opportunities

With the aim of expanding the use of trenchless technologies, such as the "SPR method", semi-automated construction methods and technologies that can accommodate a wide range of pipe shapes and sizes are being developed.

[Examples Related to the Supply Chain or Value Chain]

<Case Study 1> Raw Material Suppliers

Assumed Risk

As regulations to mitigate the impacts of climate change are tightened, suppliers will also need to review their manufacturing processes and energy use. If responses to suppliers are delayed, their manufacturing costs may increase significantly, and there are concerns that the unit prices of those raw materials purchased will increase.

Converting to Opportunities

Since FY2018, in order to stabilize the supply of raw materials and mitigate climate change on a global scale, the Group has set greenhouse gas emission reduction targets and encouraging raw material suppliers to promote activities to reduce emissions through the Group's Procurement Guidelines. These guidelines have been reviewed and are being enhanced to encourage suppliers to ensure continued sustainable procurement.

In addition, a purchasing system to procure raw materials from multiple suppliers has been adopted in order to prepare for risks that raw material manufacturing plants may shut operations due to disasters caused by climate change. Moreover, relocation of production sites are also being considered in areas where physical risks, such as natural disasters, are expected to be severe, to areas with less disaster risks.

By quickly implementing these measures, SEKISUI CHEMICAL Group is striving to become a preferred company to meet the needs of customers that seek a low-carbon footprint throughout their products life cycles.

<Case Study 2> Improving Infrastructure in Emerging Countries

Assumed Risk

In developing nations, where the infrastructure is weak and cannot keep up with urban growth, frequent water-related disasters triggered by climate change can cause major damage. To build a product supply system that meets the needs of customers in emerging countries, the Group operates production plants directly or sources raw materials from other companies in the surrounding area.

Converting to Opportunities

In order to strengthen the water infrastructure foundation in emerging countries, marketing of "Cross-Wave", a rainwater storage system developed by SEKISUI, was expanded to emerging countries such as China, India, and other countries in Southeast Asia. In FY2019, a cooperative framework with the local water resources bureau in Indonesia was established to promote the products. As a result, the products were selected for a large-scale residential development project and contributed to the green infrastructure business in Indonesia. Furthermore, in order to quickly build a resilient water supply and sewage infrastructure, the Group is accelerating the business of providing water infrastructure products such as "Eslon Pipes" (PVC pipes) and fittings in partnership with a Vietnamese company.

[Investment in Research and Development]
All development projects at our Group are selected according to long-term strategies that take into account environmental and social issues such as climate change and contribute to solving these issues. These projects are explored based on appropriate business plans.

<Case Study 1> Perovskite Solar Cell (PSC)

Assumed Risk

As the demand for solar cells increases, conventional types of solar cells may face difficulties responding to issues such as depletion of scarce resources, demands to reduce energy use, and restrictions on installation locations that take into account ecosystems and building strength. With growing demand for renewable energy, failure to thoroughly deal with these issues could lead to related businesses shrinking.

Converting to Opportunities

Research and development of perovskite solar cells has begun by utilizing the Group's film extrusion technology. These solar cells are lightweight and highly efficient, offer greater freedom in installation location, and are able create more energy than conventional technologies.

<Case Study 2> Bio-Refinery (BR) Ethanol Technology

Assumed Risk

Conversion of raw materials to non-fossil based resources and recycling of waste into useful materials are being promoted from the viewpoint of mitigating climate change in terms of both carbon circulation and resource circulation. Failure to contribute to technological development and businesses that contribute to resource circulation across the supply chain can lead to missed opportunities to enter the market in the future.

Converting to Opportunities

A 1/10-scale demonstration plant has been constructed in Kuji City, Iwate Prefecture, for the social implementation of BR ethanol technology, which produces ethanol from trash.
This technology has potential not only to contribute to resource circulation, but also for the effective use of carbon dioxide capture and utilization (CCU), which contributes to climate change mitigation.
SEKISUI is also collaborating with other companies to develop technologies for manufacturing plastics from the ethanol that is produced.

<Impacts of Climate Change on Financial Planning>

As described in Section 4-2, scenario analysis is used to analyse risks and opportunities, and based on that, business activities have been carried out in accordance with a medium-term management plan that reflects strategies for reducing risks and seizing opportunities. Also, the Group promotes the "Products to Enhance Sustainability" system, an in-house initiative for creating and promoting products that contribute significantly to solving environmental issues, including climate change. The Group aims to expand net sales of products to enhance sustainability to over 1 trillion yen to help solve environmental issues including climate change in FY2025. Turning risks into opportunities and accelerating Group growth helps in formulating a long-term plan to double our business in 2030.

Strategies to reduce climate change related risks and turn risks into opportunities have proven to be appropriate, through conducting carbon efficiency analysis and value analysis using impact-weighted accounting. Also, the need of strategies that turn current environmental values into positive impacts was suggested in future financial planning.

[Overview]
Milestones are set by backcasting from the long-term goals of "SEKISUI Environment Sustainability Vision 2050", and efforts until FY2022 had been based on the medium-term environmental plan "Environment Sustainability Plan: Accelerate II". In the current medium-term environmental plan called "SEKISUI Environment Sustainability Plan EXTEND" (2023-2025), the following indicators are set to manage progress on climate change:
(1)Net sales of products to enhance sustainability* (of which, net sales of products that contribute to resource circulation, non-fossil based products, and products using recycled materials)
(2)Greenhouse Gas Emissions (Scope 1, 2, and 3)
(3)Waste resource recycling rate
In FY2024, the target for net sales of products to enhance sustainability was not achieved, with actual sales of 996.8 billion yen compared to the target of 1,000.4 billion yen. Of those, sales of products that contribute to resource circulation expanded to 98.8 billion yen (1.8 times more than FY2020). Of this amount, net sales of products that contribute to resource conversion of raw materials amounted to 35.4 billion yen (11.8 times more than FY2019). These results indicate that the targets were met under the resource circulation strategy and are accelerating decarbonization efforts.
Greenhouse gas emissions (Scope 1+2) from our business activities met the reduction target. Although there have been changes in the supply chain depending on the year, there has been a downward trend overall since FY2019. There unfortunately has been no reduction in the year-on-year comparison, however.

*Products to Enhance Sustainability System:
Series of products that are certified and registered that contribute significantly to solving environmental and social issues, including climate change issues, based on in-house standards. Products are reviewed by a certification committee composed of in-house members and products that meet the criteria are registered. The committee receives advice and feedback from an external advisory board of external experts to ensure high standards and transparency.

5-1. Indicators for Assessing Risks and Opportunities Related to Climate Change

- Net sales of products to enhance sustainability (of which, net sales of products that contribute to resource circulation, non-fossil based products, and products using recycled materials)
- Greenhouse gas emissions (Scope 1, 2, and 3)

To solve environmental and social issues, various indicators and goals are set in the SEKISUI CHEMICAL Group medium-term environmental plan "Environment Sustainability Plan: EXTEND" (FY2023-FY2025), which is formulated based on the Group-wide medium-term management plan, progress is managed, and measures to improve effectiveness are promoted. Additionally, for risks and opportunities identified through impact analysis (see Section 4-1), the progress of efforts is regularly monitored to reduce risks and capture opportunities using indicators.
Two indicators were set to reduce the risks assumed in the 4°C scenario. These indicators are used to monitor progress of efforts to solve climate change issues.
One is for expanding products that contribute significantly to solving climate change issues through products and businesses. The net sales

of products to enhance sustainability, an internal certification system for the Group's products, is used as this index.
The other is for reducing greenhouse gas emissions. An index to assess both greenhouse gas emissions from our business activities (Scope 1+2) and greenhouse gas emissions in the supply chain (Scope 3) as an indicator to reduce risks have been set.
The degree of achievement of these indicators is reflected in environmental performance evaluation points, and is reflected in the bonuses and executive compensation of employees in managerial positions and above.

5-2. Net Sales of Products to Enhance Sustainability

[Creation and Market Expansion of Products to Enhance Sustainability: Targets and Results]

Indicators		Baseline (BL)	Results		Targets		
			FY2023	FY2024	FY2024	FY2025	FY2030
Net Sales of Products to Enhance Sustainability		—	950.2 billion yen	996.8 billion yen	1,000.4 billion yen	Over 1 trillion yen	—
	Net sales of products that contribute to resource recycling	55.3 billion yen (2020)	99 billion yen (1.8 times BL)	98.8 billion yen (1.8 times BL)	1.65 times (91.2 billion yen)	1.7 times (94 billion yen)	More than doubled (110.6 billion yen)
	Net sales of products made with non-fossil fuel derived and recycled raw materials	3 billion yen (2019)	34.7 billion yen	35.4 billion yen	39 billion yen	40 billion yen	100 billion yen

<Targets>
Targets in the above table have been set for products to enhance sustainability and strategy progress is being judged based on their results.
Among the products that enhance sustainability, initiatives are being expanded and monitored to increase the amount of contribution to the reduction of greenhouse gas emissions from products that contribute to climate change issues. Furthermore, tackling the resource circulation challenge and achieving a circular economy, as outlined in the resource circulation strategy and roadmap in Section 4-4 is seen as leading to the realization of a carbon neutral society. It is also believed that initiatives and means to realize decarbonization and resource circulation are meaningless unless they reduce the negative impacts on nature, including biodiversity. Therefore, in addition to working to expand low-carbon products that contribute to resource circulation, products and their manufacturing processes impact on nature are also monitored so that impacts can be shifted to a more positive direction (calculated based on the LIME2 concept).

<Achievements>
In FY2024, there were 9 registrations of products to enhance sustainability, bringing the total number of registered products to 213 as of March 31, 2025. Net sales were 996.8 billion yen, failing to achieve the target of 1,000.4 billion yen. The ratio to net sales rose 1.2 percentage points from 75.6% in FY2023 (Figure 16).

Although the sales target was not met, the percentage of company-wide products has increased, suggesting that the product portfolio transformation is making progress.

CO_2 reduction containers were registered in FY2024. These containers use 98% recycled materials, and raw materials from both Sekisui and competitor products are used in the post-consumer material recycling process.

To meet social demands to achieve a circular economy, the Group is registering more products such as these that contribute to solving resource recycling issues, contributing to overall net sales of products to enhance sustainability.
Because these are also technologies that link to low-carbon and decarbonization efforts, which help solve resource recycling issues, presumably, technologies which contribute to achieving a carbon neutral society are growing.

Beginning in FY2023, the Group is also evaluating the impact on environmental issues other than those that the products applied for primarily solve.

While the aforementioned products contribute significantly to solving issues in terms of resource circulation, their recycling methods and production processes are checked to see whether they have an increased negative impact on water use and biodiversity, and if there is a concern about the impact, there is a need to consider improvements.
For climate change issues, reductions in CO_2 emissions through CFP calculations, etc., are checked in addition to confirming that negative impacts are minimized through consideration of water and biodiversity in manufacturing.

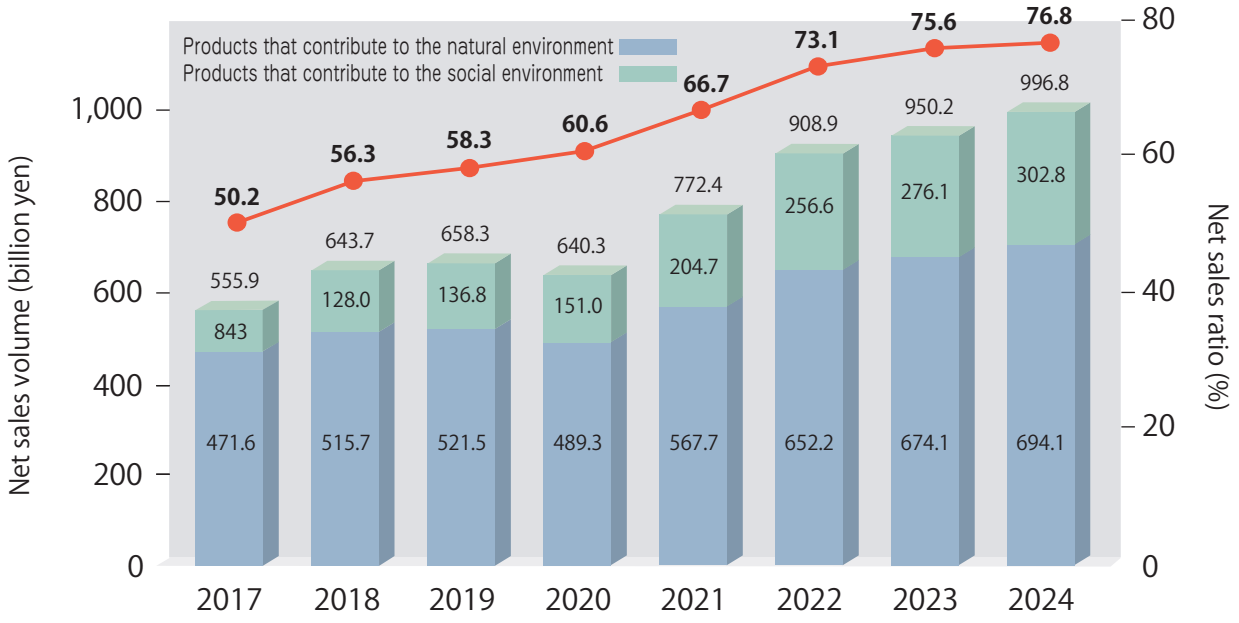


Figure 16: Trends in Net Sales of Products to Enhance Sustainability

[Reference 1]

Contributions to reducing greenhouse gas emissions in business operations and products by products to enhance sustainability: 7,410 kilotons-CO_2 (FY2024)

The following table shows the contribution to reductions in greenhouse gas emissions over the product life cycle when compared to conventional or other comparative products. Compared to the emission amount of 6,880 kilotons-CO_2/year in FY2023, an increase in contribution to the reduction of 530 kilotons-CO_2/year was observed in FY2024. "S-LEC", an interlayer film for laminated glass used in vehicle windshields, improves car air-conditioning efficiency by providing heat insulation and sound insulation, and reduces greenhouse gas emissions during driving by contributing to weight reduction.

Table 7: Disclosure of Contributions to Reducing Greenhouse Gas Emissions* from Products (FY2024)

Business Domain	Remarks	CO_2 reduction ($ktCO_2$)
Housing	Solving energy issues from the perspectives of energy creation, energy saving, and energy storage by installing solar panels, HEMS, and storage batteries	1,349
Infrastru-cture	Trenchless methods, which renew old pipes, not only reduces resources and waste, but also minimizes traffic disturbances during construction, improving fuel efficiency by reducing time stuck in traffic.	418
Vehicles and Trans-portation	Laminated glass interlayer film used for vehicle windshields. High-performance film with heat and sound insulation contribute to fuel efficiency reduction by reducing the weight of vehicles and improving the efficiency of car air conditioners.	4,755
Electronic Materials	Intermediate materials that contribute to the performance of LEDs, which are energy-saving light sources.	688
Others	–	200
TOTAL		7,410

*Contribution to GHG emission reductions through products: LCA Software MiLCA (Japan Environmental Management Association for Industry) and LCI Database IDEA (Japan Institute of Advanced Industrial Technology and Technology and Japan Environmental Management Association for Industry) are used to calculate the amount of greenhouse gas emission reductions in the life cycle of products that account for 54.5% of the total sales of products to enhance sustainability.

Foam materials, which are intermediate material rarely visible, are also developed in accordance with their properties, contributing to the reduction of CO_2 emissions during use. "THERMOBREAK", a heat insulation material for pipe ducts marketed in the ASEAN region, exerts an energy-saving effect due to its high thermal insulation. "Function Foam Tape" that has impact-absorbing properties, contributes to the performance of energy-saving LCDs (Table 7).

In the future, greenhouse gas emissions in manufacturing, including Scope 3, will be further reduced, while enhancing functions and adding new functions to products, and developing new products. In addition, markets that contribute to the reduction of greenhouse gas emissions will be driven, and the amount of contribution to reduction through our Group's products will be increased (Fig 17).

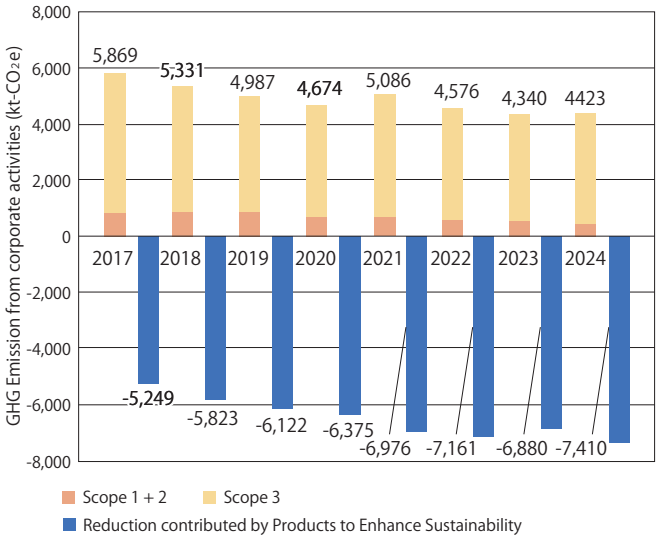


Figure 17: Greenhouse Gas Emissions from Corporate Activities and Reduction Contributions from Products

5-3. Greenhouse Gas Emissions (Scope 1, 2, and 3)

[Scope 1 and 2 Reduction Targets and Results]

Indicators	Baseline (BL)	Results		Targets				Means of achieving targets
		2023	2024	2024	2025*	2030	2050	
Purchased electricity renewable energy ratio	—	49.5%	61.0%	60%	70%	100%	Total power usage including cogeneration 100%	Promotion of renewable energy for purchased electricity and installation of self-consumption power generation systems
GHG emission reduction rate (Scope1+2)	2019	-32.8%	-37.9%	-30%	-33%	-50%	-100%	Adopt renewable energy for conventional purchased electricity, and also accelerate the shift to low-carbon fuels, electrification, and production innovation to reduce fuel-derived GHGs

*2025 is the original plan value in the current medium-term management plan.
For details on calculating GHG emissions in the supply chain, see the performance data on climate change action in the sustainability report.

<Scope 1 and 2 Targets>

The roadmap for reducing greenhouse gas emissions by 2050 for Scopes 1 + 2 is shown in Figure 18.
In 2018, SEKISUI CHEMICAL became the first in the chemical sector to obtain SBT certification and set a target of a GHG emissions reduction rate of 26% by 2030 compared to FY2013. The Group has also promoted energy consumption innovations, such as promoting the replacement of old equipment, and energy procurement innovations, such as the conversion of purchased electricity to renewable energy and the introduction of self-consumption solar power generation equipment.

Also, as climate change mitigation becomes an even more pressing social issue, the technically challenging tasks of reducing fuel-based GHG emissions by electrifying fuel-using facilities, converting to low-carbon fuels, and innovating production processes are ahead of schedule, and it has been decided to raise the GHG emissions reduction rate in 2030 to 50% compared to FY2019. This target was re-certified by the SBT as a 1.5°C target in March 2023.

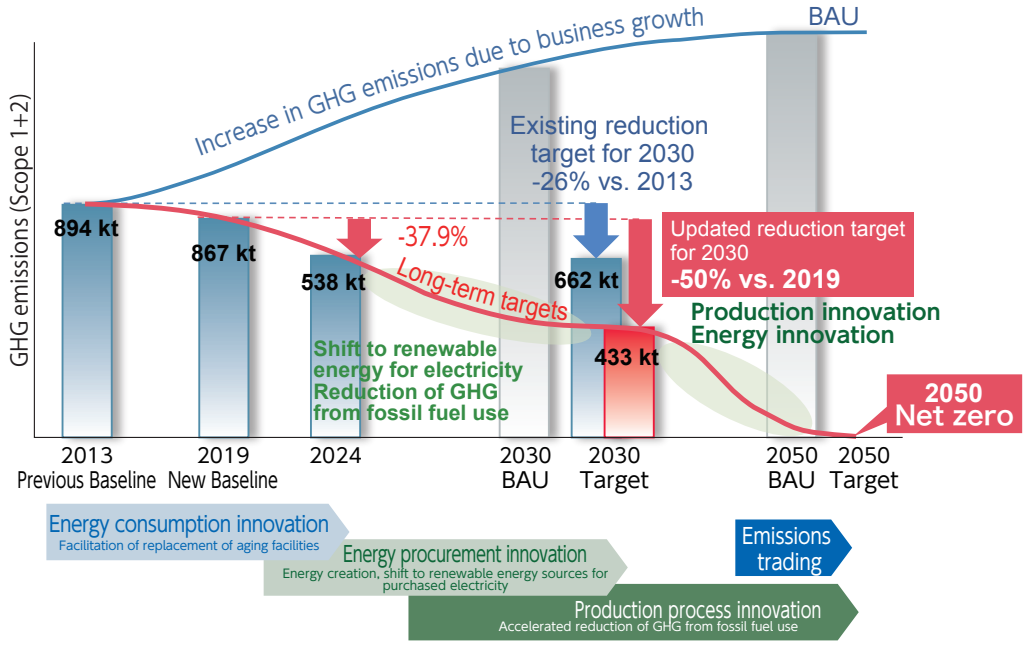


Figure 18: Roadmap for Greenhouse Gas Reduction

<Scope 1 and 2 Achievements>

The Group's overall share of purchased electricity from renewable sources reached 61.0% in FY2024, exceeding the target of 60%. Compared to FY2019, the GHG emission reduction rate was reduced 37.9%.

In order to reduce greenhouse gas emissions from the Group's business activities, the conversion of purchased electricity to renewable energy by installing solar power generation systems within its own business sites are actively promoted, and consuming the generated electricity within the business sites, or switching electricity purchased from power companies to renewable energy sources. In FY2024, three business sites installed solar power generation systems for self consumption, reaching a total of 26 production sites and institutes in Japan and abroad, bringing the total power generation capacity to 14,442 MW. Furthermore, regarding electricity to be purchased from power companies, 43 production sites and institutes in Japan and overseas have completed the conversion to 100% renewable energy. In FY2024, the ratio of renewable energy ratio of purchased electricity was 61.0%, including in-house solar power generation.

In addition, the current medium term environmental plan (2023-2025) has changed the details of the "Measures to Promote Environment-Contributing Investments" established in the previous medium term plan to contribute to climate change mitigation.

This change promotes investments that are effective in reducing greenhouse gas emissions, such as purchasing renewable energy and converting facilities to reduce fuel-derived greenhouse gases, as well as installing equipment that creates energy from renewable sources. This is one of the internal carbon pricing systems, and it is a mechanism to provide financial support from Headquarters to the investing department at a conversion rate of 30,000 yen per 1t-CO_2 of GHG emissions reduced. As a result of this initiative, the amount of CO_2 emissions reduced is increasing year by year as the equipment and facilities are completed, contributing continuously to the reduction of greenhouse gas emissions in manufacturing.

The switch to renewable energy is being facilitated by providing a certain amount of support for the cost of converting purchased electricity to renewable energy.

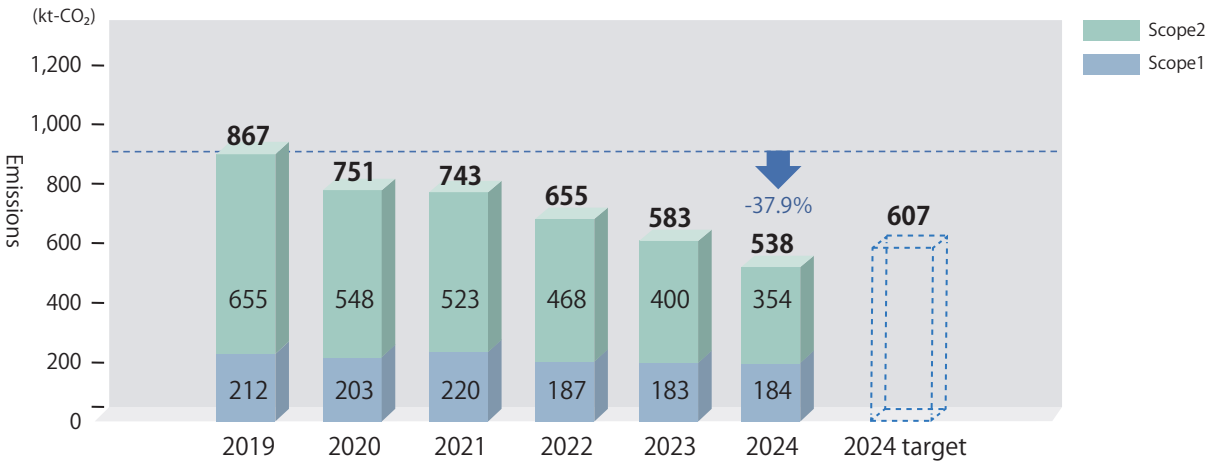


Figure 19: Greenhouse Gas Emissions in Scope 1+2

[Scope 3 Reduction Targets and Results]

Indicators	Baseline (BL)	Results		Targets				Means of achieving targets
		2023	2024	2024	2025	2030	2050	
Greenhouse gas emissions in the supply chain (Scope 3)	2019	-8.8%	-5.7%	—	—	-30%	—	Add resource recycling measures (conversion to non-fossil raw materials, increased use of recycled materials, and recycling of waste) to promote reductions in Categories 1, 5, and 12, and reduce Category 11 by increasing the sales ratio of ZEH-specification housing

<Scope 3 Targets>

When obtaining SBT re-certification in 2022, the Group established the resource recycling strategy after reviewing Scope 3 GHG emission reduction targets. The following key implementation items were considered in the strategy.

1. Shifting from resin raw materials to non-fossil fuel derived materials and increasing the use of recycled materials
   → Contribute to reductions in Category 1 (purchased products and services), which accounts for over 50% of Scope 3
2. Promote waste plastic recycling
   → Contribute to reductions in Category 5 (waste from business) and Category 12 (disposal of sold products)

On the other hand, Category 11 (use of sold products) is the cause of GHG emissions from energy used in "SEKISUI Heim" housing sold by the Group Housing Division. Because expanding the availability of ZEH housing among houses sold will link to reductions, a business strategy that expands the ratio of ZEH houses directly contributes to Category 11 reductions.

<Scope 3 Achievements>

Regarding the reduction of greenhouse gas emissions in the supply chain (Scope 3), the results for FY2024 were as follows (Table 8).

Table 8: Greenhouse Gas Emissions in the Supply Chain (Scope 3)

Category	Increase/decrease (vs. 2019)
Category 1 (purchased products and services)	11.0% decrease
Category 5 (waste from business)	6.9% increase
Category 11 (use of sold products)	68.5% decrease
Category 12 (disposal of sold products)	10.4% increase
Scope 3 overall	5.7% decrease

Decreased by 5.7% overall for Scope 3 (vs. 2019). For Category 1 (purchased products and services), which accounts for the majority of the total, there was an 11% decrease (vs. 2019). Activities centred on working with suppliers and converting raw materials to bio-derived materials and recycled materials will continue in the future, and initiatives and measures for further acceleration are being considered.

Recycling of waste plastic at plants is being promoted in the current environmental medium-term plan. Group companies are considering selecting recyclers that enable material recycling thanks to better sorting as well as technologies that can handle difficult to recycle materials such as composites. In the process of consideration, there are multiple businesses engaged in resource recycling projects.

At the current stage, progress is being made in the improving plastic material recycling rate, however, this has not resulted in reductions in Category 5 (waste from business).

The same applies for Category 12 (disposal of sold products).

While rolling out the results of these activities both domestically and overseas, the Group faces the challenge of building a new cyclical system in collaboration with various stakeholders and implementing it in society. Implementing recycling technologies in society also links to consideration of new cyclical frameworks such as collection of materials from the market, which could contribute to Category 12 reductions.

Category 11 (use of sold products) showed a significant reduction of 68% (vs. 2019). This is due to the fact that the ratio of Net Zero Energy House (ZEH) sold has increased to 95% (excluding Hokkaido).

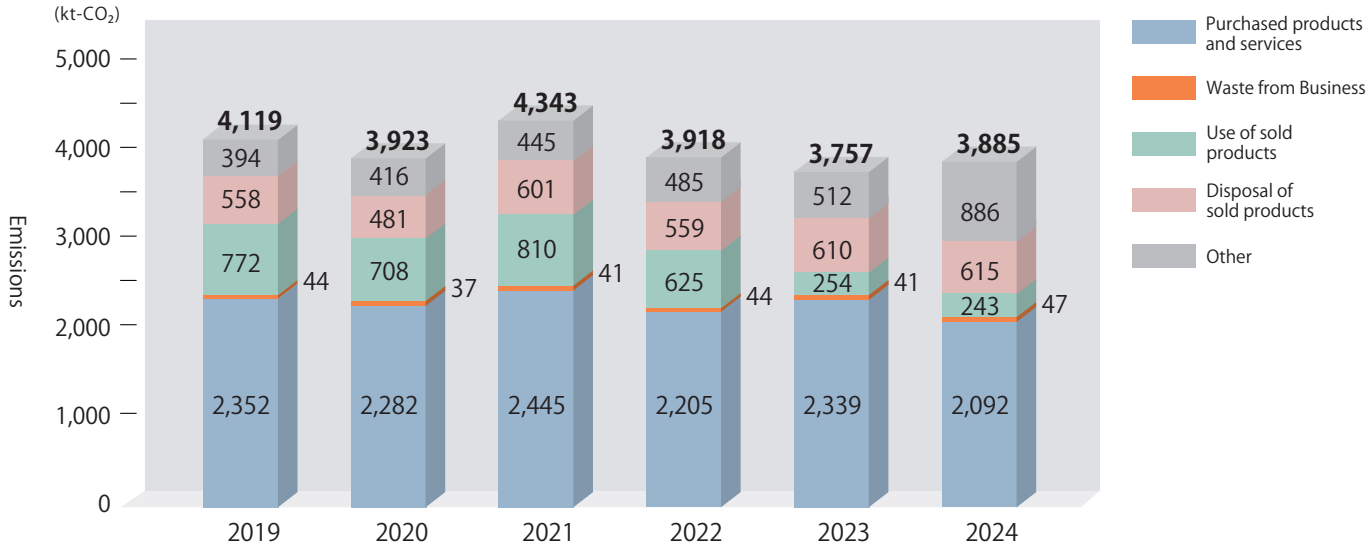


Figure 20: Greenhouse Gas Emissions from the Supply Chain

5-4. Material Recycling Rate of Waste Plastic

[Waste Plastic Material Recycling Targets and Achievements]

Indicators		Results		Targets			
		FY2023	FY2024	FY2024	FY2025	FY2030	FY2050
Material recycling rate of waste	Domestic	60.7%	66.9%	63%	65%	100%	100%
	Overseas	Baseline setting	70.1%	BL+3%	69%	100%	100%

BL=Baseline

<Targets>

Increasing the material recycling rate of waste plastic, one of the management indicators for solving resource circulation issues, will lead to a reduction in GHG emissions derived from the Group's waste treatment in Category 5 of Scope 3.

Additionally, the conversion of waste that would otherwise have to be disposed of in landfill or incinerated into a useful recycled resource will reduce negative impacts on biodiversity and resource depletion issues, have high environmental value, and generate benefits for society.

Based on this approach, the following rating scale has been established with the aim of improving the material recycling rate through high-quality solutions, and initiatives such as sorting and shredding and the introduction of technologies to achieve the material recycling rate of 65%, the target set in the current medium-term plan, are being promoted.

<Achievements>

In FY2024, the Group reached 66.9% compared to the domestic target of 63%, exceeding the goal and showing that initiatives are accelerating further.

From FY2025, efforts will be strengthened at overseas sites under a target of 69%.

Introduction of quality assessment to improve the material recycling rate

[Recycling goal]	[Rating Scale]
·Minimize resource consumption ·Minimize greenhouse gas emissions in the reuse process ·Expand recycling of waste products through innovation	(1) Circularity (2) Reduce CO_2 emissions by using waste plastics (3) Environmental contribution (e.g., processing of difficult-to-recycle materials)

(1) In terms of circularity, the Group assesses the desired circularity as there are various methods of material recycling (for example, horizontal recycling of plastics, cascade recycling, use as other functional materials, etc.).
(2) For the reduction of CO_2 emissions, the Group assessed the positive impact of material recycling on climate change and confirmed that it is a recycling method that has no negative impacts.
(3) In terms of environmental contribution, the social significance and the degree of environmental contribution of processing difficult-to-recycle materials* is assessed.
*Difficult-to-recycle materials:
Materials that are currently difficult to process and can only be thermally recycled or disposed of in landfill.

Expanding quality material recycling initiatives domestically and abroad should help improve the material recycling rate. Activities are being promoted on the understanding that this in turn will contribute to Scope 3 emission reductions and improve sustainability as a company.

SEKISUI CHEMICAL Group has been releasing its initiatives on climate change issues in the TCFD Report since FY2019. Recognizing that climate change issues require long-term initiatives, the reports have analysed the risks to which companies are exposed and the risks companies pose to the external environment. Strategies are to be developed and initiatives pursued to mitigate both risks and convert them into opportunities.

As the accuracy of scientific predictions improves, the importance of raising goals related to climate change issues, accelerating the achievement of targets and the associated transition towards decarbonized management is becoming more important in order to achieve a carbon neutral society. In FY2022, the Group also considered innovations and measures to accelerate the pace of decarbonization, taking into account the results of various initiatives to curb greenhouse gas emissions and the evaluation of the scenario analysis disclosed in this report, thus revising the milestone from a target of 2°C to 1.5°C.

Since FY2012, SEKISUI CHEMICAL Group has recognized the impact of its corporate activities on nature and social capital in its long-term environmental vision. When different social issues, including environmental issues, are solved, "an earth with maintained biodiversity" can be realized. The progress of efforts have been confirmed and evaluated as the SEKISUI Environmental Sustainability Index. In this integrated assessment, a rate of return of 100% or more relative to natural and social capital is achieved and maintained.

In FY2020, a long-term goal for 2050, the "SEKISUI Environment Sustainability Vision 2050" was formulated, which included targets for resource circulation and water risks in addition to climate change, and launched initiatives to achieve that goal. With regards to resource circulation, a resource circulation policy was formulated in FY2021, and a roadmap based on it to promote innovation was drawn up. At the same time, measures are being developed to accelerate the conversion of raw materials to non-fossil based materials and recycling of disposed wastes back into materials. In other words, it was recognized that even the issue of resource circulation would affect the natural and social capital used, and vice versa. Based on this recognition, specific milestones are being set and undertake initiatives after examining risks and their impacts.

Additionally, the Group revised its Environmental Management Policy in FY2024 to reflect internal and external changes (new environmental issues, thinking in terms of global standards, Group long-term environmental vision, etc.) in our policy. In addition, the Group formulated new environmental issues (climate change mitigation/adaptation, water resources, and biodiversity policies) in the Environmental Management Policy as a top-level policy, and together with the existing resource circulation policy, the Group's internal and external approach was reiterated and clarified.
Going forward, the Group will accelerate efforts that involve the supply chain in line with these policies.

Environmental Management Policy
https://www.sekisuichemical.com/sustainability_report/basic_policies/#anc-P02

In the future, the risks and impacts of different environmental issues will be analysed, strategies to reduce risks will be formulated, and information on the results of these efforts will be released. It is recognized that promoting such information disclosure not only demonstrates the sustainability of the Group, but is also an important issue in obtaining like-minded partners to solve issues, or to take a leading position in transforming the society.

SEKISUI CHEMICAL Group will continue to promote sustainable initiatives that are integrated with our business activities, with the aim of realizing a sustainable society and the sustainable growth of our Group.

TNFD

Task Force on Nature-related Financial Disclosures

This TNFD report is disclosed and reported based on the official guide of recommendations published in September 2023 to illustrate SEKISUI CHEMICAL Group's responses to biodiversity issues as follows:

1. How the Group ascertains its impacts on biodiversity and the impacts that the Group receives from biodiversity, and what strategies it is pursuing to move both impacts in a positive direction.
2. How the Group seeks to reduce its negative impact on biodiversity and improve the sustainability of the Group and society.

The SEKISUI CHEMICAL Group positions biodiversity as a key management issue alongside climate change, quantitatively identifying our reliance and impact on natural capital while promoting strategies to achieve nature positivity.

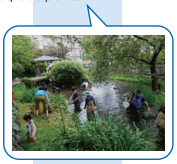
This report analyses the impact our business activities have on biodiversity and the benefits (reliance) on nature capital, identifying the underlying risks and opportunities. Specifically, we use scientific tools such as ENCORE, the BII (Biodiversity Intactness Index), Aqueduct, and others to conduct a multifaceted assessment of each business domain, product life cycle, and production site.

The results revealed that land and water resource use in the upstream supply chain and the environmental impact at manufacturing sites has a major impact on biodiversity. Based on this analysis, the Group has established seven strategic pillars for enhanced initiatives to reduce risk and create opportunities.

In the future, we aim to make continuous improvements through the PDCA cycle as well as minimize the negative impact and maximize the positive impact with more in-depth LEAP analysis. We will also work with inside and outside stakeholders in efforts to protect natural capital and create value.

SEKISUI CHEMICAL Group Initiatives Related to Biodiversity

Black: Internal policies Green: Stakeholder Related Infinitives (External Evaluations, etc.)

Environmental Medium-Term Plan	Positioning of biodiversity	General	Impact driver				
			Climate Change	Resource Use	Land/Freshwater/ Ocean Use	Pollution	Invasive Alien Species
1998 or before	Efforts from the perspective of environmental preservation and nature conservation	・Began SEKISUI Chemical Nature Study Course		・Began zero emission activities (zero landfill) ・Built a product collection and recycling system in collaboration with the Japan PVC Pipe and Fittings Association		Ongoing Introduced a product environmental impact assessment system ・Began environmental reviews from the perspective of compliance with environment laws ・Strengthened chemical substance management through responsible care activities ・Introduced EMS	
Environmental Medium-Term Plan STEP-21 1999-2002		・Began nature conservation activities at business sites and voluntary activities Ongoing Began "Innovation inspired by Nature Research Support Program"	Ongoing Added the LCA assessment to product environmental impact statements		・Introduced biotopes to business sites	Ongoing Reduced emissions and movement of chemical substances with voluntary targets ・Began implementation of Green Procurement Operation Guidelines (for newly traded chemical substances)	
Environmental Medium-Term Plan STEP-2005 2003-2005	Achieving growth while balancing environmental friendliness and economic efficiency	・Medium-Term Environmental Vision Committed to be an "Environmentally Creative Company (Prominence in Environment)" ・Formulated the new Medium-Term Environmental Vision, "Environmental Top Runner Plan" ・Added a section on biodiversity to the "Environmental Management Policy"	・Introduction of measures to promote capital investment to reduce CO_2 emissions ・Began "Energy-saving Investment" Incentive Program Part II		・Began biodiversity assessment of business sites Ongoing Began biodiversity surveys using the "JBIB Land Use Score Card®" at all production sites and institutes in Japan ・Began regular water risk surveys at all production sites and institutes (Aqueduct)	・Wastewater assessment using WET (2013)	・Conduct on-site biological surveys, create a manual and conduct activities to exterminate invasive alien species (2 locations) Ongoing Activities to exterminate invasive plants at business sites
Environment Top Runner Plan Part 1 2006-2008		・Promote nature conservation activities at overseas business sites ・Formulated biodiversity guidelines ・Encourage nature conservation activities in collaboration with local communities at all Japan and overseas sites					
Environment Top Runner Plan SHINKA! 2009-2013		・Long-Term Environmental Vision Formulated "SEKISUI Environment Sustainability Vision 2030" ・Began developing "SEKISUI Chemical Forest" (7 blocks) ・Implemented "SEKISUI Environment Week":Promoted activities at all global business sites, encouraging all employees to participate (until 2019) ・Calculate SEKISUI Environmental Sustainability Index (rate of return to natural capital) using LIME2					
SEKISUI Environmental Sustainability Plan Take-Off 2014-2016	Working to achieve the vision	・Long-Term Environmental Vision Formulated "SEKISUI Environment Sustainability Vision 2050"	・Established the environmental contribution investment framework (12 billion yen/3 years) ・Obtained "SBT Initiative" certification (a world-first in the chemical industry) ・Commitment to support the TCFD	SCIENCE BASED TARGETS DRIVING AMBITIOUS CORPORATE CLIMATE ACTION	・Ritto Plant began activities to conserve biodiversity at Lake Biwa (hereinafter, "Ritto Plant activities") ・Received the Executive Committee's Special Award and the "Environment and Company" Special Award at the 3rd Good Life Awards organized by the Ministry of the Environment ・Received Grand Prize in the "Corporate/Organization Leader Category" of the Japan Nature Conservation Prize 2015 ・Received the Minister of Agriculture, Forestry and Fisheries Award at the 6th Contest for Activities on Biodiversity		Example: Shikoku SEKISUI began activities to exterminate invasive aquatic plants 
SEKISUI Environmental Sustainability Plan Accelerate 2017-2019			Ongoing Issued the TCFD report		・Continued risk reduction activities for locations with high water risk		
SEKISUI Environmental Sustainability Plan Accelerate II 2020-2022		Ongoing Began activities to contribute to the SDGs ・Materialization of products by leveraging biomimicry - Radio wave reflection film learned from the brilliance of morpho butterfly wings - Adhesive tape learned from mussel secretions ・Use LIME2 to calculate rates of return for biodiversity and primary plant growth ・LEAP Analysis	Ongoing Joined RE100	・Formulated resource circulation policies and strategies ・Examined recycling technologies for in-plant waste with the aim of achieving a material recycling rate of 100% RE100 "CLIMATE GROUP" CDP	・Conducted the 2nd water risk surveys: Also identified water risks to the supply chain and operations ・"Asaka Lead Town" obtained ABINC-ADVANCE certification ・SEKISUI Medical Iwate Plant was certified as an "Other effective area-based conservation measures (OECM)" by the Ministry of the Environment. Registered as OECM oecm 30by30		
SEKISUI Environmental Sustainability Plan EXTEND 2023-2025		Ongoing Issued the TNFD report ・Register as a TNFD Adopter ・Performed BII ENCORE assessment ・Revised the environmental management policy ・Formulated our biodiversity policy ・Participated in the "Bridge Research Group" to examine nature positivity indicators (examine the use of LIME3)	・Updated SBT certification to the 1.5°C target ・Re-obtained SBT Initiative certification (1.5°C) ・Formulated our climate change mitigation and adaptation policy	・Focus on resource conversion of raw materials ・Examined the establishment of a material recycling system for the purpose of social implementation	・Formulated the water resources policy		・Conduct on-site biological surveys, create a manual and conduct activities to exterminate invasive alien species (implemented at a total of 36 locations)
		Ongoing Began environmental risk surveys and environmental due diligence for suppliers					

2-1. Oversight and Enforcement System for Biodiversity Issues

[Overview] SEKISUI CHEMICAL Group recognises that natural capital issues, including biodiversity, are as important as climate change in terms of ESG management. With regard to external environmental issues that may pose a risk to management, the same systems and mechanisms are implemented as for handling other important issues (see TCFD Report, "2. Governance").

Biodiversity initiatives need to be implemented specific to each area. In the future, it will be necessary to accelerate the integration of internal and external technology platforms, and to develop a system that enables work to be performed with experts and local authorities to study and implement solutions.

3-1. Analysis of Risks and Opportunities Related to Biodiversity

[Overview] SEKISUI CHEMICAL Group recognizes its impact and dependence on natural capital, including biodiversity, and analyses the risks to the Group or society. The same system of risk management for other environmental issues is then used to prevent or reduce the identified risks (see TCFD Report "3. Risk Management").

<Assessing and Managing Management Risks that Include Biodiversity>

The Group carries out risk assessments using scenario analysis with climate change as one of the key axes. As social change towards climate change mitigation and adaptation will have a significant impact on biodiversity and other environmental issues, the impact on environmental issues other than climate change has been assessed and risks re-analysed since FY2021 (see TCFD Report Table 3).

<Assessing and Managing the Opportunities Obtained from Addressing Biodiversity Issues>

As with climate change and other environmental issues, the opportunities offered by addressing biodiversity issues are also studied by the Products to Enhance Sustainability Certification Committee and the External Advisory Board. Discussions with internal committee members and external experts on what contributions can be made with the products and services of the Group have provided insight into strategies that transform risks into opportunities.

[Overview]

■ Key Issues and Initiative Directions in Response to Major Impacts on Natural Capital

The SEKISUI CHEMICAL Group has conducted a multifaceted assessment on its relationship with natural capital (reliance and impact) in terms of business domains, life cycles, the geopolitical risks at production and development sites, and medium-term risks, revealing that the most significant risks on biodiversity are the use of land and water resources upstream in the supply chain and the environmental impact at manufacturing sites.

(i) Overview of Analysis Results and Identifying Priority Issues

The Group used LEAP analysis and a combination of the following tools for the evaluation.

- ENCORE assessment: Tool that visualizes the dependence on and impact of nature capital for industrial sectors
- Aqueduct Water Risk Atlas assessment: Water risk mapping by drainage basin unit
- Biodiversity Intactness Index (BII): Identifies the soundness of the ecosystem at and around each branch
- Business activities life cycle assessment (LCA): Visualization of the environmental impact from raw material procurement to disposal

Based on the above assessments, the following two items have been prioritized as issues that relate to nature capital.

- Use of land and water resources upstream in the value chain (raw materials, transportation, construction, etc.)
- Environmental impact of water use, water drainage, and waste emissions, etc., involved in production plant operations

(ii) Consideration in View of Scenario Analysis

The Group used scenario analysis to study the direction of strategies in the four social areas. In consideration of the uncertainty of natural capital in the medium term, the Group studied scenarios in four quadrants, namely, changes to social structure (urban concentration or decentralization in rural areas), mitigation of climate change and the accompanying direction of energy conversion (reliance on non-fossil fuels or fossil fuels) (See the scenario analysis page in the TCFD Report).

■ Identifying Regions with Major Impact on Business (LEAP Analysis)

Using LEAP analysis for the results of the previous item made it possible to identify the four most significant areas of impact in business.

Southeast Asia	(1) Because the housing business is highly reliant on wood resources, the risk of forest destruction in this area is a cause for concern.
	(2) Because the water infrastructure is weak and because there are Group and supplier sites, water risks during disasters are cause for concern.

Domestic town and community development business areas	Because land usage methods are often altered in town development projects in Japan, the risk of damage to biodiversity is a concern.
Marine areas	The risk of damage to biodiversity from the outflow of plastic garbage in the ocean is a cause for concern.

Regarding areas identified as particularly high risk, based on the LEAP analysis method, the Group considered countermeasures based on risk analysis and confirmed the status of their progress in current business.

■ Strategies Developed from Analysis Results
The assessments showed the relationship to natural capital (reliance and impact), and by analysing the affects on impact drivers, the Group was able to reduce each impact and establish a biodiversity grand design in view of nature positivity by 2050.
The following seven items serve as the main initiatives.
<Realize returns on natural capital from corporate activities>
(i) Review of manufacturing processes (ii) Review of nature-positive product design
(iii) Expansion of contribution through products to enhance sustainability
<Support the return to natural capital by society>
(iv) Strengthening efforts in raw material procurement (v) Support for social change
<Activities to accelerate the two returns>
(vi) Human resources development (vii) Stakeholders collaboration

4-1. Key Issues and Initiative Directions in Response to Major Impacts on Natural Capital

The SEKISUI CHEMICAL Group has conducted a multifaceted assessment on its relationship with natural capital (reliance and impact) in terms of business domains, life cycles, the geopolitical risks at production and development sites, and medium-term risks, revealing that the most significant risks on biodiversity are the use of land and water resources upstream in the supply chain and the environmental impact at manufacturing sites.

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The Group used a combination of the following tools for the evaluation.

1) ENCORE assessment: Tool that visualizes the dependence on and impact of nature capital for industrial sectors
2) Aqueduct Water Risk Atlas assessment: Water risk mapping by drainage basin unit
3) Biodiversity Intactness Index (BII): Identifies the soundness of the ecosystem at and around each branch
4) Business activities life cycle assessment (LCA): Visualization of the environmental impact from raw material procurement to disposal

From the above assessments, the following two items have been prioritized as issues that relate to nature capital.

- Use of land and water resources upstream in the value chain (raw materials, transportation, construction, etc.)
- Environmental impact of water use, water drainage, and waste emissions, etc., involved in production plant operations

i-1) ENCORE assessment

Using the ENCORE tool, the dependence of and impact on natural capital by business domain at the Group was assessed.
The Group's businesses are positioned in the Residential, Advanced Lifeline, Innovative Mobility, and Life Sciences sectors, and, as the next frontier, the Energy sector. The product life cycle (from raw material procurement to production, transportation, and construction) in each business and the global value chain of the business were taken into consideration (Table 1).
In addition, the dependence on and impact of natural capital in the Group's value chain based on industry segments has been mapped (Figure 1).
The results showed the following trends in the impact and reliance on natural capital.

[Overall Reliance and Impact Trends]

In a business domain such as our Group's, the impact is greater than the dependence when looking at the impact and dependence on natural capital.

[Impact on natural capital]

- The impact of terrestrial ecosystem use in terms of resource use is significant in the business domain (residential and advanced lifeline) related to the construction industry which uses land.
- Materials development and manufacturing in the chemical industry are relevant to all business domains for both in-house and supply chain activities. The impact on the use of terrestrial ecosystems and the use of water resources used during manufacturing is particularly significant due to the affect on the land where the manufacturing sites are located.
- There is a trend of greater impact related to greenhouse gas emissions, emissions to the atmosphere and water bodies, and waste.

[Impact on natural capital]

- The impact of terrestrial ecosystem use in terms of resource use is significant in the business domain (residential and advanced lifeline) related to the construction industry which uses land.

[Dependence on natural capital]

- The construction and chemical industries are also highly dependent on water resources for materials development and manufacturing.

Table 1: Impact and Dependence on General Natural Capital in the Industry Segments Corresponding to the Group's Business Domains (Assessed Using ENCORE)

Business Domain					Industrial Segment in ENCORE			Assessment Aspects in ENCORE	Impact on Natural Capital						Dependence on Natural Capital			
															Supply Services		Coordination Services	
									Use of Terrestrial Ecosystems	Use of Freshwater & Marine Ecosystems	Water Resource Use	GHG Emissions	Effluent	Waste Disposal	Water Resource Use	Other Resources	Impact Mitigation	Climate Control
								Biodiversity Impact Aspect	Resource Use		Land/Freshwater/Ocean Use	Climate Change	Pollution		Land/Freshwater/Ocean Use	Resource Use	Pollution	Climate Change
	R				U	Construction		Raw material use (consumable materials)	Very high	High	High	High	High	High	Medium	Low	Medium	High
	R				S	Construction		Construction	Very high	Very high	Very high	High	High	Medium	Medium	-	-	-
	R				U	Construction		Raw material use (main materials)	Very high	High	High	High	Medium	High	Very high	-	Low	-
	R				S	Construction		Real estate use	Very high	-	-	High	Medium	High	High	-	Low	Very Low
	R	A			S	Construction		Lifeline use	Very high	-	Very high	-	Low		Very Low	-	-	Very high
		A			D	Construction		Telecommunications development & construction	High	-	-	-	Low	Medium	-	-	-	Very high
	R	A			D	Chemical & construction		Construction/materials development & manufacturing	Very High	High	Very High	High	High	High	Very High	Very Low	Low	High
		A			D	Chemical & construction		Lifeline/development & construction	Very High	High	Very High	High	High	High	Very High	Very High	Medium	Very High
	R	A	I	L	S	Chemical		Materials development & manufacturing	High	-	Very High	High	High	High	Low	Very Low	Low	Medium
			I		D	Chemical		Vehicle/general consumables	-	-	-	-			Medium	Very Low	Medium	Medium
			I		D	Chemical		Vehicle/industrial	Very High	High	High	High	High	High	Medium	Low	Medium	High
			I		D	Chemical		IT	-	-	High	High	High	Medium	Medium	-	Low	-
				L	S	Health		Service provision	-	-	-	-	-	-	-	-	-	-
				L	D	Health		Product sales	-	-	High	-	High	Medium	-	-	Very Low	-
				L	D	Health		Materials development & manufacturing	High	-	Very High	High	High	High	Low	Very Low	Low	Very Low

R:Residential	S:Sekisui Business Activities
A:Advanced Lifeline	U:Upstream value chain
I:Innovative Mobility	D:Downstream value chain
L:Life Science	

Six-level assessment:	0	1	2	3	4	5	6
Construction	-	Very Low	Low	Medium	Medium high	High	Very high
Chemical	-	Very Low	Low	Medium	Medium High	High	Very High
Health	-	Very Low	Low	Medium	Medium High	High	Very High

This map further reveals the following:
(1) The company's business activities impact natural capital over a wide range of areas due to the wide variety of its business domains. Of those, the impact of life sciences on natural capital is insignificant, while the impact of construction-related business on natural capital is significant.
(2) Downstream in the value chain, many items are attributed to the product's field of use, but the business domain and the stage of use of the product by the customer are also diverse, so the impact on natural capital is as diverse as the company's own business activities as described in (1).
(3) Impacts on natural capital upstream in the value chain tend to be greater than the impacts of our business activities.
(4) The greater dependence on natural capital generally tends to be attributed to land use.

These points will be kept in mind in future company activities and ways to advance returns to natural capital will continue to be considered. For example, businesses that provide chemical solutions can help reduce reliance on natural capital by cutting back on energy and the amount of resources used in manufacturing. Also, reducing the amount of emissions into the air and water can lessen the impact on natural capital.

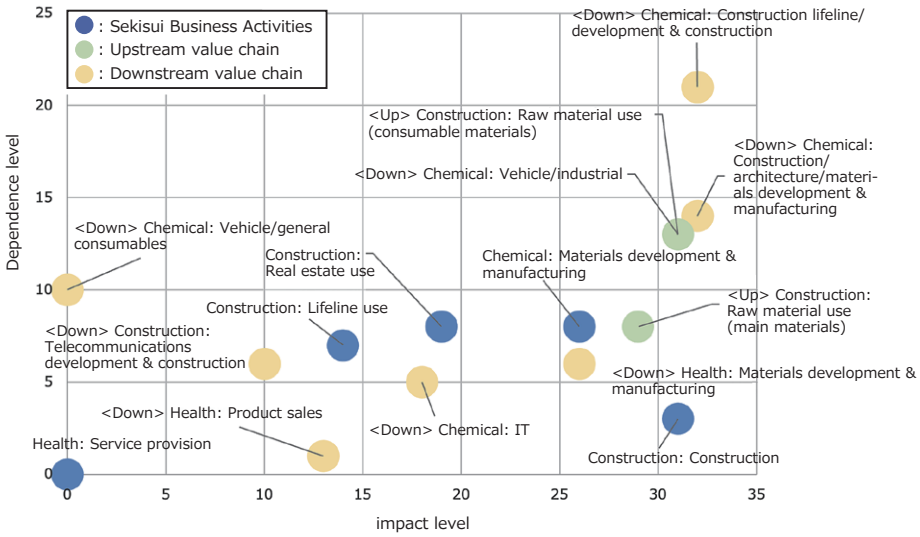


Figure 1: Dependence and Level of Impact on Natural Capital in the Value Chain

i-2) Aqueduct Water Risk Atlas assessment:
With regard to water resources, on which the Group's business activities depend and have an impact, a roadmap toward our goal of "Realizing of societies filled with clean water" by 2050 has been created (Figure 2). In FY2020, a business impact assessment of water risks for all of the Group's domestic and overseas production sites (including institutes) was conducted.

This is the second time this assessment has been conducted, following a water risk survey conducted in 2013. Through periodic assessments, production sites with significant water risks and impacts on the water environment, and regional water risks have been identified, and we have been working to address each issue.

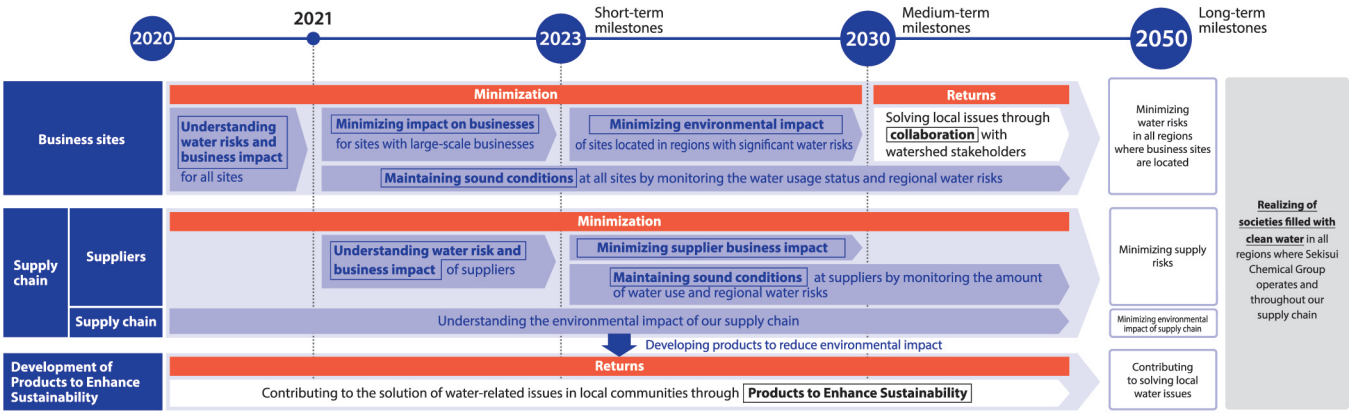


Figure 2: Roadmap to Solve Issues Related to Water Resources

Aqueduct Water Risk Atlas 3.0, a water risk evaluation tool developed by international NGO the World Resources Institute (WRI), was used to identify regional water risks.
Furthermore, the evaluation results were corrected based on information on water usage obtained through surveys conducted at each production location.
As a result of these assessments, the number of sites with significant business impact risk due to the drainage basin environment and the number of sites with significant environmental impact risk due to Group activities was ascertained (Table 2).
From among the results, five global sites that require priority risk reduction actions were selected. For these five sites, water risk reduction initiatives have been proposed in the current medium-term management plan.

Conversely, for sites that are not high on the priority list but could be high risk in the medium- to long-term from the perspective of the drainage basin environment, targets will be set for each site based on water use, drainage circumstances, and drainage basin characteristics, and initiatives to reduce risks in the future will be considered.
Because water risks are impacted by climate change, environmental conditions of drainage basins and the status of production sites will change over the medium- to long-term. To deal with such changes, risk assessments related to water resources will be reviewed in each medium-term management plan while promoting activities to enhance the sustainability of manufacturing.

Table 2: Number of Sites with Significant Business and Environmental Impacts

Production sites with high risk of impacts:
Risk assessment from 7 angles
(Unit: Sites)

Danger of production cuts and shutdowns due to drought	2
Delay of planned production due to regulations	5
Sales pressure due to water charges	5
Sales pressure due to water charges resulting from change of water source from groundwater	0
Sales pressure due to water intake treatment costs	3
Sales pressure due to wastewater treatment and groundwater costs	4
Impact on employees and production due to site flooding	50

Production sites with high risk of environmental impacts:
Risk assessment from 9 angles
(Unit: Sites)

Balance between supply and demand of local water	26
Balance between supply and demand of local groundwater	4
Contribute to water recycling at wastewater treatment plants	17
Impact of consuming local water	5
Impact of drawing water from the region	22
Compliance with pumping rates that do not impact the surrounding environment	2
Ascertain groundwater burden and state	8
Comply with wastewater standards	2
Ascertain drainage quality	3

i-3) Biodiversity Intactness Index (BII*)

In the product life cycle management at manufacturers, land use of production sites is an important factor. Thus, to ascertain the management risks related to natural capital, the impact that production sites have on natural capital was identified.

The use of land at production sites and emissions from the sites to the external environment may have a certain impact on biodiversity, even if they are in compliance with laws and regulations. Ascertaining the extent of the impact allows us to obtain indicators necessary for preserving biodiversity and lessening the impact. Also, preservation efforts make it possible to benefit from a healthy ecosystem, such as purification functions and disaster suppression functions. From this perspective, the Biodiversity Integrity Index (BII) was adopted as a method to assess the impact of production sites on the natural environment. We assessed the BII at all Group global production sites and at the surrounding area including the sites. Based on the results, we plotted the BII ratio using site BII as the horizontal axis and site and area BII as the vertical axis, creating a figure (Figure 3) which was used to study the direction of future conservation activities.

Also, Table 3 shows the biodiversity situation at each site, the gap from surrounding areas, and a comparison between sites, providing information on the direction of future policies at each site.

*Biodiversity Intactness Index (BII): This method was proposed by R. J. Scholes at the Council for Scientific and Industrial Research (CSIR) in 2005. Global data was published by Tim Newbold et al. at the University College London in 2016. It is calculated based on the extent to which the original biodiversity of an area has decreased in the present day, and enables an assessment of how much the biodiversity of an area has increased or decreased. It was proposed as a practical indicator to assess how much the original population of organisms in an area has declined from its original state due to various environmental factors. The BII data used as the source for this report is based on the division of the entire world into "equally spaced meshes of 0.008 latitude and longitude (about 0.6 to 1.1 km)" and the calculation of the BII values for each mesh.

[Meaning of each index]

- Site BII*: Indicates the current biodiversity status of the site.
- BII of the mesh (lot) containing the site: It will be possible to monitor the current status of the area and the extent to which the ecosystem is changing due to production activities and land modification as a manufacturer.
- BII around the area including the site: Average BII for an area of about 20 km square (20 x 20 mesh) around the production site.
- Ratio of BII of the site to BII of the surrounding area (i.e., BII of the base/BII of the surrounding area): Indicates the gap between the abundance of the biodiversity of the site and the abundance of the surrounding biodiversity. If it exceeds one, it can be said that the BII at the site is more abundant than the surrounding BII. Conversely, if it is below one, the BII of the site is considered to be poorer than the surrounding BII.

*BII: Biodiversity Intactness Index

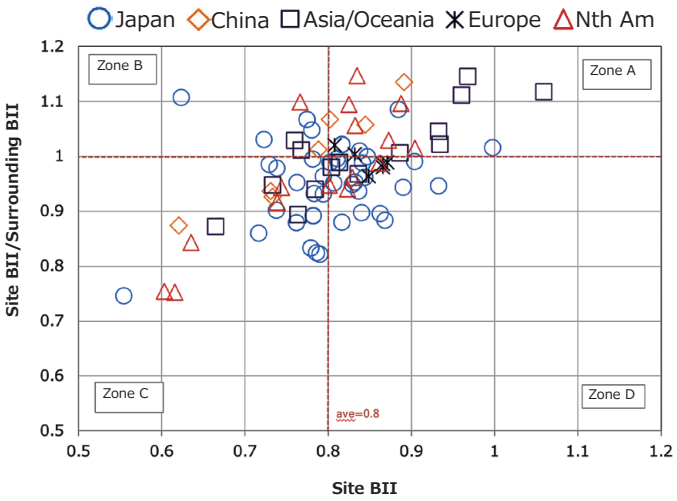


Figure 3: Assessment of Impact on the Natural Environment at Production Sites Using the Biodiversity Intactness Index (BII)

Table 3: Gaps Between the Site and its Surroundings

Zone	Gap between site and surrounding area	Comparison between sites	Direction of future activities based on assessment results
A	Rich in biodiversity compared to the surrounding area	Biodiversity richer than site average	Conserve the current environment so that a wealth of biodiversity is maintained. (e.g. Survey the site ecosystem and implement conservation accordingly)
B	Rich in biodiversity compared to the surrounding area	Biodiversity poorer than site average	Improve the environment of the surrounding area while conserving the site environment. (e.g. Implement conservation initiatives with the community)
C	Poor in biodiversity compared to the surrounding area	Biodiversity poorer than site average	Improve the environment in and around the site (e.g. Introduce to the local community activities to increase on-site tree planting through plant tours and roll-out in other regions)
D	Poor in biodiversity compared to the surrounding area	Biodiversity richer than site average	Improve the environment in the site (e.g. increase planting to create a variety of vegetation)

For example, the Iwate Plant of SEKISUI MEDICAL CO., LTD. is located in Zone A. This item is certified as one that coexists with nature to meet 30by30 targets, and management activities are currently being implemented for active preservation efforts registered in the OECM (Other Effective Conservation Measure: areas that contribute to the preservation of biodiversity outside protected areas) international database. Zones C and D, where the BII of the site/BII of the surrounding area is less than one and the environment is considered to be poor in biodiversity compared to the surrounding environment, contain many Japanese business sites.

Figure 4: Iwate Plant of SEKISUI MEDICAL CO., LTD.

However, in Japan, biodiversity conservation activities have been conducted since 2013 in accordance with the natural environment of each business site using the "JBIB Land Use Score Card®" and the results of these activities is believed to have a positive impact on the environment around the business sites in the future.

In the Asia and China area, where several business sites are located in Zone C, which is less biodiverse than the surrounding areas and has a lower rating compared to the average of all sites, it is important to continue the activities based on the "JBIB Land Use Score Card®" that are being promoted in Japan and to promote more proactive environmental conservation activities at the sites.

i-4) Business activities life cycle assessment (LCA)

There are opportunities to be created and risks to be reduced by assessing and managing our business risks related to natural capital and tackling the issues.

To utilize these assessment results in product life cycle management, which is an important part of our business activities as a manufacturer, dependence of and impact on natural capital has been identified as shown below.

(1) Dependence: Natural capital (resources and energy) to be used for each product life cycle process is identified as INPUT.

(2) Impact: Identify OUTPUT (e.g., emissions to the external environment) to natural capital for each product life cycle process.

(3) Assess what kind of reliance (INPUT) and impact (OUTPUT) there is on natural capital in each process of the product life cycle, then determine which biodiversity impact driver* is relevant.

The results are summarized in Figure 5. This figure enabled the ascertainment of which processes and initiatives are effective in reducing our impact on and dependence of biodiversity, and turning management risks related to natural capital into opportunities.

For example, we confirmed that in the life cycle management of products in Group business activities, efforts to reduce reliance on wood resources (which are plant-derived raw materials) in raw material procurement not only reduce risk for the Group, but also link to lessened impact on biodiversity arising from the use of resources. Additionally, we discovered that reducing emissions (greenhouse gases, waste, wastewater, etc.) during the manufacturing process leads to reduced impact on biodiversity caused by climate change and pollution.

Based on this approach, we organized the inventory data and calculated the environmental impact arising from business activities. Using this, the Group quantitatively identifies the load in each process and engages in management to lessen our reliance on natural capital and related risks. (Equivalent to the SEKISUI Environmental Sustainability Index denominator.)

*Impact drivers:

Factors that directly or indirectly impact biodiversity or natural capital. Our Group defines "climate change", "resource use", "land/freshwater/ocean use", "pollution", and "invasive alien species" according to the TNFD framework.

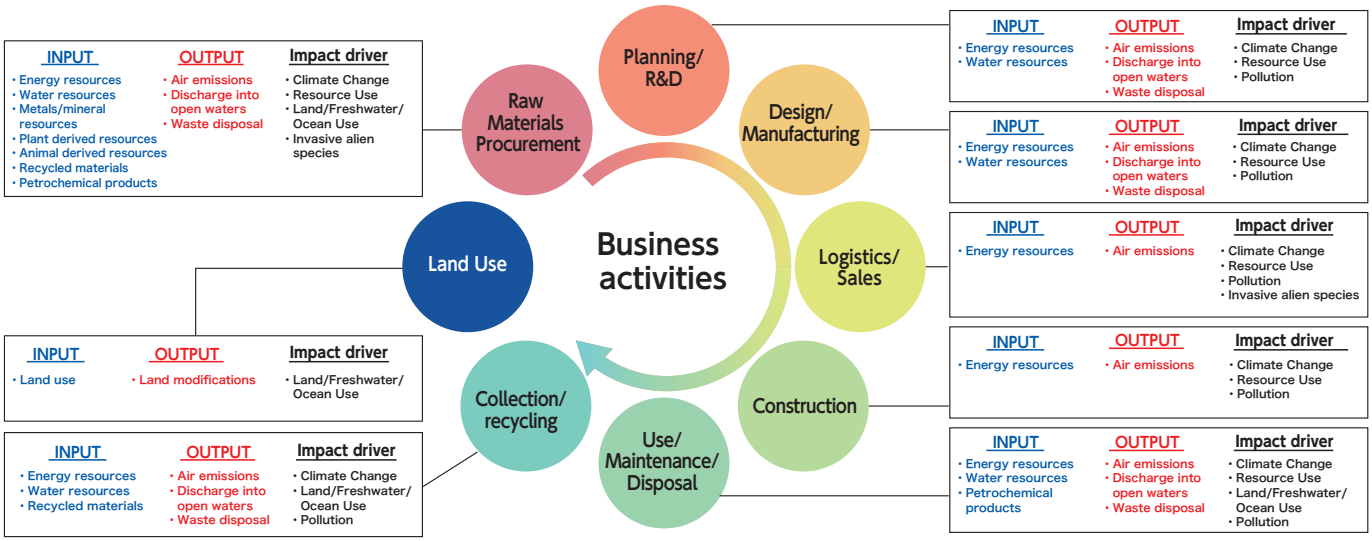


Figure 5: Dependence and Impact of Group Business Activities on Impact Drivers

<(ii) Consideration in View of Scenario Analysis>

To analyse the medium- to long-term risks, the SEKISUI CHEMICAL Group studied the strategic direction of four images of society.

Our group has developed a four-quadrant scenario framework that takes into account medium- to long-term uncertainties related to natural capital, with the two axes defined as changes in social structure, such as “urban concentration vs. regional decentralization”, and the degree of progress in addressing climate change (mitigation or adaptation). (See the scenario analysis in TCFD Report section 4-2).

By setting up an axis for climate change as one scenario, which is now being scientifically predicted, it was considered how biodiversity would change due to climate change and what impact that would have on natural capital, and reflected this in our social scenarios.

A temperature rise exceeding 4°C is likely to increase negative impacts on natural capital, including biodiversity. On the other hand, if temperature increase is kept below 1.5°C, positive impacts on natural capital should increase.

The impact on biodiversity in each social scenario is shown in the table (Table 4).

1.5℃ scenario

Tightened carbon tax / exhaust gas regulations,
accelerated resource circulation, reduced water risk, mitigated impacts on aspects of nature

Scenarios involving various measures taken to control climate change

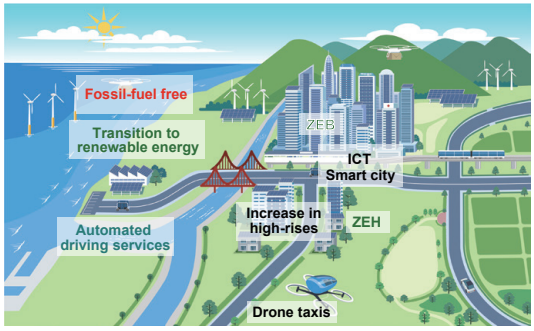
(A) Decarbonized smart society

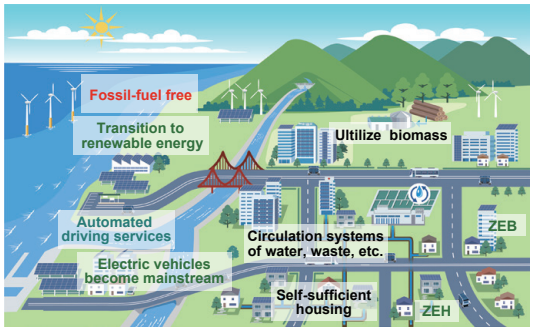
- Large-scale "smart farming"
- Expand "land sparing"
- Ecosystem services provided by companies and municipalities in urban areas
- Development of large-scale green infrastructure, Eco-DRR

(B) Sustainable circular society

- Improved agricultural efficiency
- Expand "land sharing"
- Individual access to ecosystem services
- Development of small-scale green infrastructure, Eco-DRR

Phasing out fossil fuels





Electric vehicles

Scenarios involving increased urban concentration

Urban concentration — Concentrated power generation

Dispersed power generation — Decentralized communities

Scenarios involving rural decentralization

Stagnating use of natural capital by humans

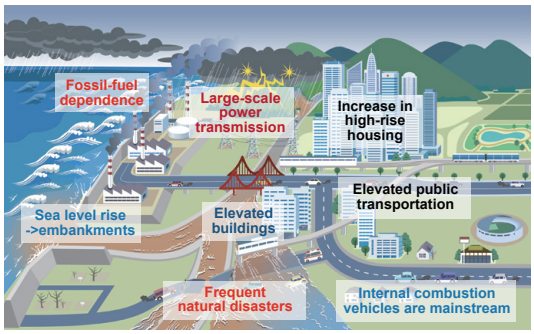
Appropriate use of natural capital by humans

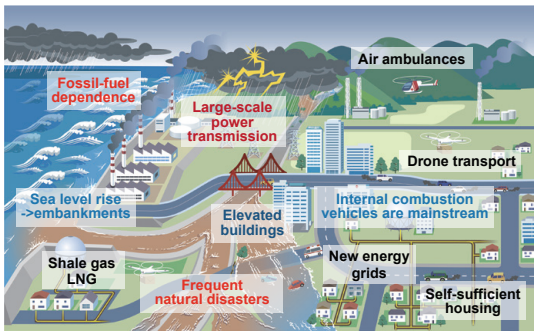
(D) Mass consumption society

- Centralized agricultural management system
- Biodiversity restoration by companies and municipalities (urban areas, use of man-made capital)

(C) Local production and local consumption society

- Management techniques for small-scale farming
- Biodiversity restoration by companies and municipalities (regional, mazimun use of natural capital)





Internal combustion vehicles

Depending on fossil fuels

Scenarios involving preparation for higher temperatures and frequent disasters due to climate change

4℃ scenario

Frequent natural disasters, delayed resource circulation system,
increased water risks, increased negative impacts on nature

Figure 6: Changes Related to Biodiversity Expected in Four Visualized Scenario of Societies

Table 4: Impact on Biodiversity in Each Social Scenario

Scenario		Situational changes that impact biodiversity in this social scenario	Impact on biodiversity
(A) Decarbonized smart society (Urban concentration + fossil-fuel free)	○ Somewhat positive society	• Less dependence on burning fossil fuels due to introduction of renewable energy (solar power, wind power, etc.)	• Suppressing GHG emissions and global warming helps maintain the ecology.
	• There is the possibility of fragmenting the ecosystem	• Improve resource usage efficiency by introducing ICT and smart agriculture	• Various ecosystems are being maintained in rural areas.
		• Promote energy saving with ZEH, ZEB, etc.	• Increased land development pressure due to population concentration in urban areas and the risk of shrinking nature and green spaces around the city
(B) Sustainable circular society (Decentralization in rural areas + fossil-fuel free)	◎ Extremely positive	• Mitigate climate change with non-fossil fuels	• Suppressing GHG emissions and global warming helps maintain the ecology.
	An ideal society where biodiversity is preserved and regional revitalization is possible (An advanced society where people coexist with the ecosystem)	• Distribute social functions required for rural areas, such as the energy and water infrastructure	• Enables minimization of the scale of necessary social infrastructure and sustainable use and preservation of natural capital such as farmland, forests, and village forests.
		• Links to diverse land use	• Using diverse types of land maintains more diverse ecosystems
		• Nature positive measures (Eco-DRR, green infrastructure, etc.)	• Links to recovery and maintenance of ecosystem services
(C) Local production and local consumption society (Decentralization in rural areas + Fossil-fuel dependence)	△ Slightly negative A society with the potential to correct along with nature, but also has some risk	• Distribute social functions required for rural areas, such as the energy and water infrastructure	• Enables minimization of the scale of necessary social infrastructure and sustainable use and preservation of natural capital such as farmland, forests, and village forests.
		Use natural materials and local production and local consumption	Enables reassessment of the value of genetic resources in relation to biodiversity and preservation of traditional knowledge.
		• Continued reliance on fossil fuels increases the risk of global warming impacts	• Although points of contact with nature have been maintained in the short term, worsening global warming and water risks put the ecosystem at risk, resulting in progressing species distribution changes.
(D) Mass consumption society (Urban concentration + Fossil-fuel free)	× Significant negative impact A society with extremely poor biodiversity due to a double punch to the climate and nature (a society that prioritizes the short-term economy)	Progression of population concentration in urban areas and mass consumption accelerates the use of resources and energy	Links to development and destruction of the natural environment.
		• Continued reliance on fossil fuels increases the risk of global warming impacts	• Although points of contact with nature have been maintained in the short term, worsening global warming and water risks put the ecosystem at risk, resulting in progressing species distribution changes.
		Increased disaster risks (floods, extreme heat, forest fires, etc.)	Major damage to the ecosystem

○ A Society that has a somewhat positive impact on biodiversity
△ A society that has a slightly negative impact on biodiversity
◎ A society that has an extremely positive impact on biodiversity
× A society that has a major negative impact on biodiversity

4-2. Identifying Regions with Major Impact on Business (LEAP Analysis*)

Using LEAP analysis for the results of the previous item (4-1) made it possible to identify the four most significant areas of impact in business. Regarding areas identified as particularly high risk, based on the LEAP analysis method, the Group considered countermeasures based on risk analysis and confirmed the status of their progress in current business.

Southeast Asia	(1) Because the housing business is highly reliant on wood resources, the risk of forest destruction in this area is a cause for concern.
	(2) Because the water infrastructure is weak and because there are Group and supplier sites, water risks during disasters are cause for concern.
Domestic town and community development business areas	Because land usage methods are often altered in town development projects in Japan, the risk of damage to biodiversity is a concern.
Marine areas	The risk of damage to biodiversity from the outflow of plastic garbage in the ocean is a cause for concern.

In "A: ASSESS", the impact was analysed from the viewpoints of the affect on the ecosystem and Group business activities, or in other words, an assessment was conducted on the "double materiality" approach.
Using LEAP analysis, the Group formulated and confirmed the effects of measures after identifying the impact of several businesses and initiatives on the ecosystem and the Group.
By continuing to use such analyses and considering measures in the future, the Group aims to reduce negative impacts and increase positive impacts with the goal of achieving nature positivity.

*LEAP analysis: A process proposed by the Task Force on Nature-related Financial Disclosures (TNFD) to systematically assess nature-related risks and opportunities on a scientific basis. The acronym LEAP stands for Locate, Evaluate, Assess, and Prepare.

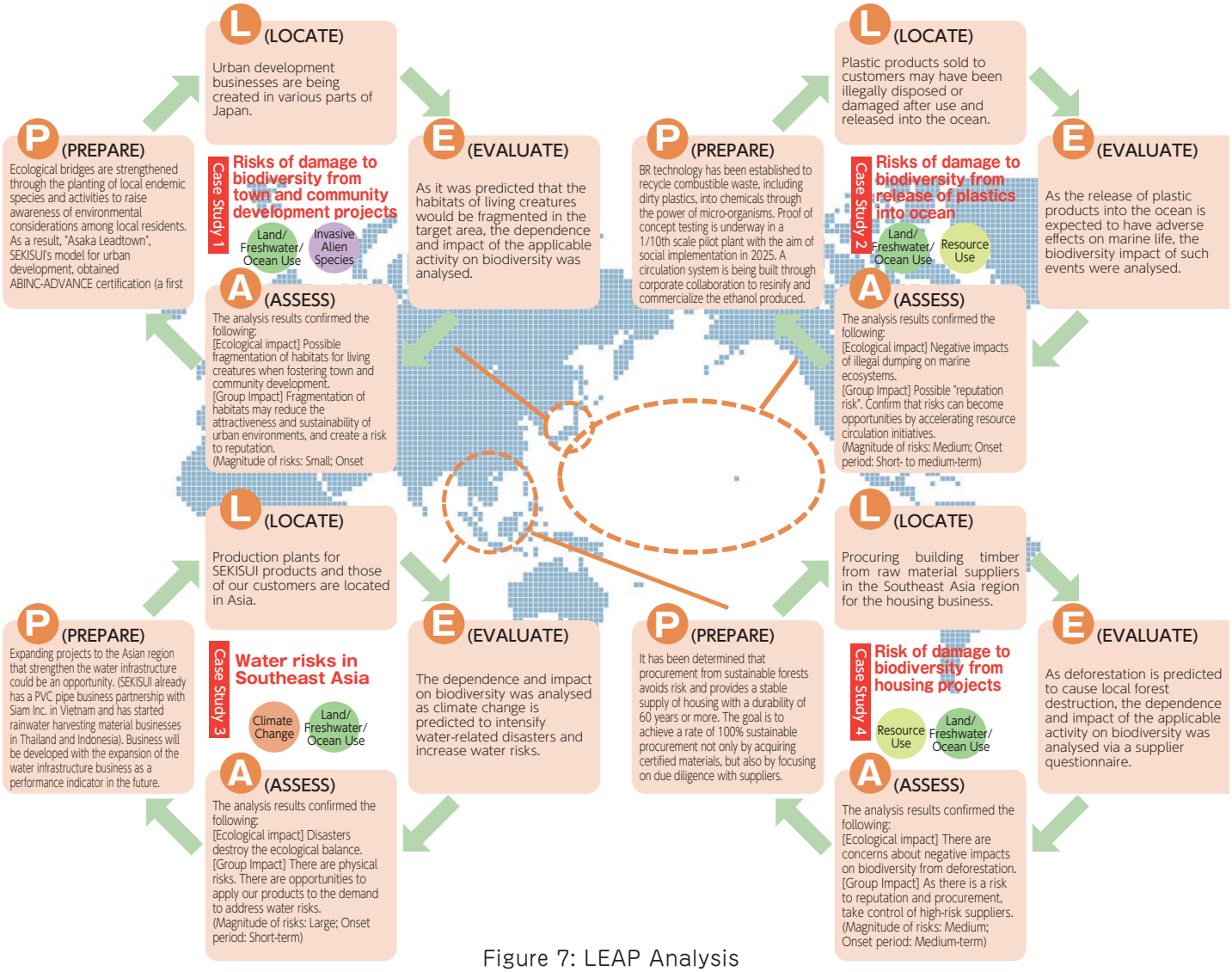


Figure 7: LEAP Analysis

4-3. Strategies Developed from Analysis Results

<(i) Factor Analysis Using Impact Drivers>

The dependence and impacts of the natural capital issues according to the analysis evaluation shown in 4-1 and 4-2 have been recognized and large impact areas and items have been identified.

In general, the factors that impact natural capital are known as the "five impact drivers". To minimize risks in the impact and dependence in natural capital, the Group believes that analysing the relationship with impact drivers is valid, so the Group impact has been aggregated and re-analysed (Figure 8).

Initiatives to lessen each impact driver are shown below. Climate change, resource use (resource recycling), and water use are recognized as drivers (factors) that have a significant impact on corporate activities, and a roadmap to 2050 has been created for each issue to be addressed.

To lessen the impact of pollution, efforts are under way to directly manage the release of chemical substances into the air and rivers, as well as recovering and recycling volatile portions, and enhancing water treatment. The Group has implemented an environmental impact assessment using LIME2, a life cycle impact assessment method, confirming the indirect impact on biodiversity and aspects of plant biomass, utilizing the results in management (biodiversity and plant biomass return rate are described later).

With regard to invasive alien species, since the start of initiatives at production sites in Japan based on the "JBIB Land Use Score Card®", biological surveys have been conducted at several business sites every year with a team of experts, and an extermination manual was created based on the information obtained on invasive alien species. Extermination activities are being promoted using this manual in activities to preserve green areas within business sites.

These activities to reduce impact on and dependence of natural capital will help raise employee awareness of the correlation between environmental issues and encourage them to consider and implement measures that do not involve trade-offs. The above reiterated that such activities are important for the Group to achieve nature positivity.

Impact Drivers	INPUT	OUTPUT	Impact Areas	Activities
Climate Change	• Raw Material use (plastics)	• Air emissions	• Global warming due to GHG emissions	• Aiming for carbon neutrality, achieving milestones in greenhouse gas emissions from corporate activities, and contributing to the realization of 1.5 degrees or less
Resource Use	• Energy resources • Water resources • Metals/mineral resources • Plant derived resources • Animal derived resources		• Use of paper/wood in products • Use of industrial water	• Based on our resource recycling policy, promoting recycling of resources by converting waste into materials and developing technologies and products that contribute to resource recycling • Encourage sustainable wood use by reaching out to suppliers
Land/ Freshwater/ Ocean Use	• Land use		• Fragmentation of ecosystems at production sites	• Improving the quality of green spaces used in production activities • Minimize water withdrawal in the process • Reduction of marine plastics through resource recycling design of plastic products
Pollution		• Air emissions • Emissions into water • Waste disposal	• Impact on watersheds of wastewater from production • Illegal disposal after use of plastic products • Release of chemicals in the production process into atmosphere	• Minimizing emissions into air and water of chemicals from manufacturing process
Invasive Alien Species			• Invasion of alien species due to raw material procurement and product transportation	• Eliminate alien species from green spaces used in production activities • Considerations during procurement and transportation

Earth with maintained Biodiversity

Figure 8: List of Initiatives for Each Impact Driver

<(ii) Grand Design of Initiatives Related to Biodiversity>

Based on the recognition of the impact and reliance on biodiversity, the Group has established the following grand design for initiatives. With the following seven initiatives serving as pillars for business activities and supporting social reform, we are aiming for the 2050 goal of Earth with Maintained Biodiversity (Figure 9).

Seven initiatives to realize Nature Positive

■ Realize returns on natural capital from corporate activities
(i) Review of manufacturing processes
(ii) Review of nature-positive product design
(iii) Expansion of contribution through products to enhance sustainability
■ Support the return to natural capital by society
(iv) Strengthening efforts in raw material procurement
(v) Support for social change
■ Activities to accelerate the two returns
(vi) Human resources development
(vii) Stakeholders collaboration

Of the seven initiatives, the TCFD Report (p29-31) introduces the "(vi) Human Resources Development" initiative to develop human resources with a superior ability to contribute to solving social issues, such as climate change, resource circulation, and other environmental issues.
In the pages herein, the "Innovation Inspired by Nature" research support program, which is one of the activities in "(v) Support for social change", and "activities to conserve green spaces at our business sites", which is one of the activities in "(vii) Stakeholders collaboration", will be introduced.

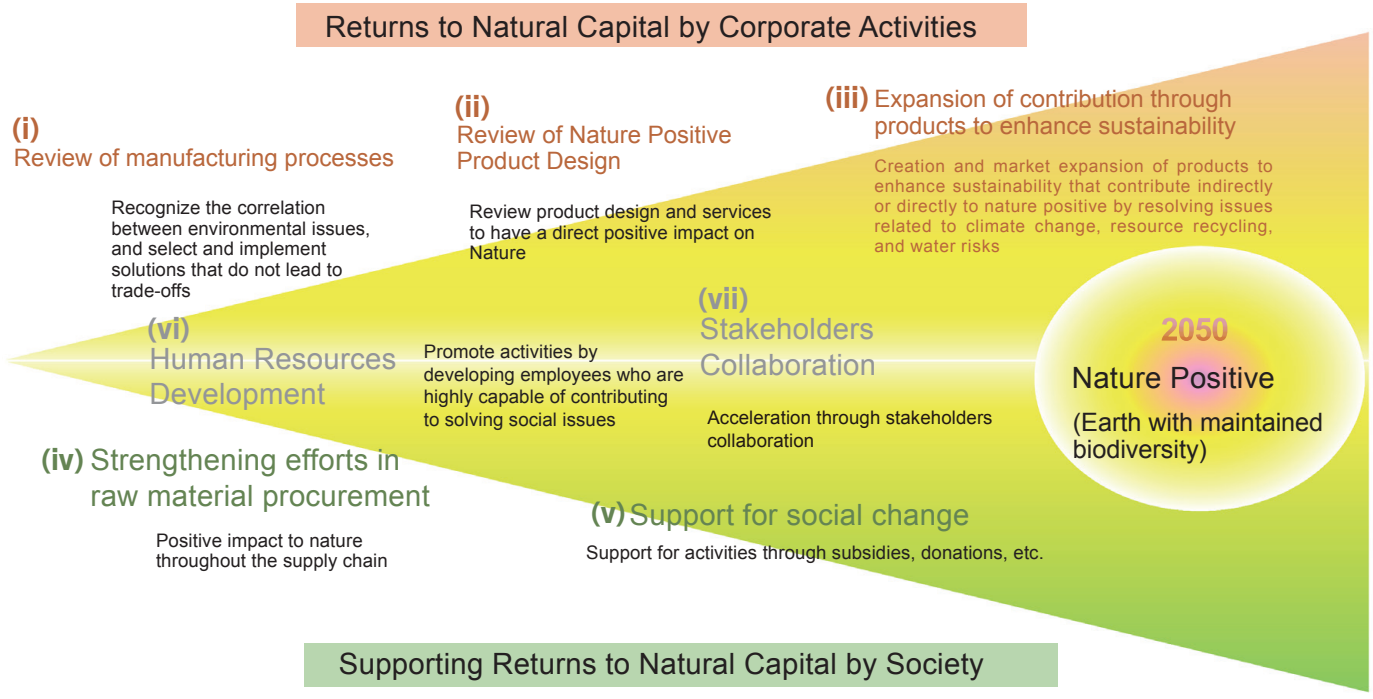


Figure 9: SEKISUI Biodiversity Grand Design

[Reference 1]

Example of "(v) Support for social change": "Innovation Inspired by Nature" Research Support Program

In 2002, the SEKISUI CHEMICAL Group began supporting innovative basic research that learns from nature and practical application research that solves social issues. Since then, we have handed out research grants and conducted researcher exchange forums for more than 20 years. To learn the form and function of living organisms, creatures, minerals, and things found in nature, and to create harmless, useful materials. To introduce environmentally-friendly production processes that follow the mechanisms of living organisms and nature in which manufacturing is practised. This is based on the principle that these efforts will lead to the formation of a sustainable society that will last for the next hundred or thousand years.

As of the end of March 2025, a cumulative total of 319 projects have been funded under this concept. Currently, up to 3 million yen and 5 million yen per manufacturing theme and basic research theme, respectively, are being invested for a total grant amount of 25 million yen per year. Targeted themes include energy, environment, new materials development, and life sciences, and many will lead to reducing the impact on biodiversity.

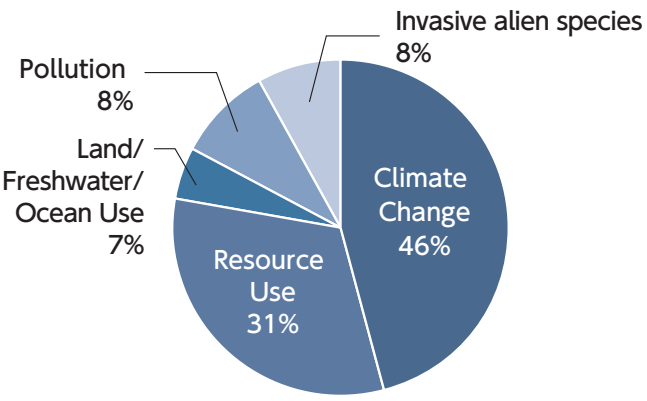


Figure 10: Percentage of Targeted Impacts Among the Themes that Affect Biodiversity Impact (in the "Innovation Inspired by Nature" Research Support Program)

An analysis was conducted to determine the percentage of contribution that these research grant themes could make to reducing negative and increasing positive impacts among the five biodiversity impact drivers (Figure 10). As a result, 134 grant themes were determined to have the potential to contribute to reducing negative and increasing positive impacts on biodiversity. Furthermore, several themes were identified where a single grant example contributed to multiple impacts.

Table 5: Grantor Examples Related to Impact Drivers

Impact driver	Theme	Grantor Affiliation Organization
Climate Change	Regulation of Photofunctions of Polyphyllin J Aggregates as Learned from the Light-Harvesting System of Photosynthesis	The University of Tokyo
Land/ Freshwater/ Ocean Use	Creation of Groundwater Purification Systems as Learned from Soil-microbe Respiration Systems	Nagoya University
Resource Use	Establishing Concrete Recycling Technology by Learning from the Formation Process of Sedimentary Rocks	The University of Tokyo
Invasive alien species	Biomineralization Mechanisms for Approaching Resilient Eelgrass Beds Conservation	National Institute of Technology (KOSEN), Wakayama College
Pollution	Development of Pest Control and Crop Promotion Methods Using Vibration Responsiveness of Organisms	The University of Electro-Communications

The most common related impacts seen were climate change and resource use. Examples of themes associated with each impact are shown in Table 5.
These results suggest that these grants are making a multifaceted contribution to the development of technologies and engineers to make a positive impact on biodiversity.
In recent years, the approach of learning from nature, or biomimicry, has been attracting attention as the key to environmentally

harmonious technologies and creating new value. Learning from the structure, processes, and systems of nature and applying them is a valid method for creating sustainable innovation.

As the focus on the biomimicry approach continues to be developed, technologies and product examples such as those shown in Figure 11 have emerged.

We believe that in the future, biomimicry will result in greater possibilities for new products and technologies, and will reach out to society to continue these grants and maintain a positive impact on natural capital.

[Contributing to the extension of healthy life expectancy]

Figure 11: Examples of Product Development Innovation Inspired by Nature

[Reference 2]

Example of "(vi) Human resources development" and "(vii) Stakeholders collaboration": Conservation of forests registered in 30by30*

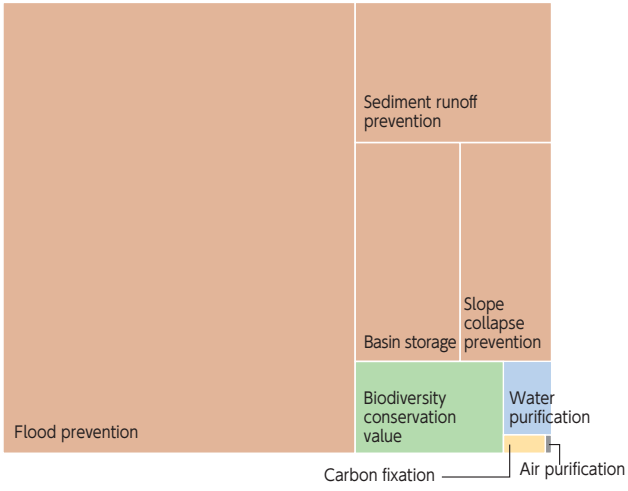
The Group registered the Iwate Plant of SEKISUI MEDICAL CO., LTD. as a forest that falls under the OECM's 30by30 initiative.
As part of the initiatives to use the "JBIB Land Use Score Card®", biological surveys to confirm that forests are worthy of this registry were conducted.
The benefits of conserving these forests were analysed using the "Work Manual for Assessment and Calculation of Ecosystem Services Related to Company Biodiversity Conservation Activities (Trial Version)" published by the Ministry of the Environment in March 2019, and calculated as the economic impact.
Using this calculation method, it was revealed that the forests within the Iwate Plant generate benefits with an economic value equivalent to 120 million yen per year.
In particular, this forest has been found to provide disaster control functions, such as flood prevention, sediment run-off prevention, drainage basin storage, and slope failure prevention; that is, outcomes that also contribute to climate change adaptation for the local population (Table 6).

*30by30:
There are three goals adopted by the Kunming-Montreal Global Biodiversity Framework (GBF). One is aiming to preserve 30% of the land and ocean by 2030. The OECM is a major measure for achieving the 30by30 goal, and is a region that contributes to the preservation of biodiversity outside protected areas. Visualization is included in the effects of conservation activities, and the 30by30 Alliance aims to improve the amount of conservation activities to achieve cross-sectional efforts in the area of main measures.

Table 6: Benefits of Biodiversity Preservation Activities

Benefits		Stakeholders:	Outcomes	
			Initial outcomes	Long-term outcomes
Disaster control	Flood prevention	Residents	Improve rainwater penetration capacity	Improve flood protection functionality
	Sediment runoff prevention	Residents	Development of understory vegetation	Improve sediment runoff prevention functionality
	Basin storage	Residents	Improve rainwater storage capacity	Improve water source recharge functionality
	Slope collapse prevention	Residents	Soil movement control	Improve slope collapse prevention functionality
Biodiversity conservation value		Unspecified majority	Improve habitats for diverse organisms	Conserve forest biodiversity
Water purification		Residents	Microbial activation	Improve water purification functionality
Carbon fixation		Unspecified majority	CO_2 absorption	Mitigate climate change
Air purification		Residents	NOX & SOX absorption	Air purification

Figure 12: Economic Impacts of Biodiversity Conservation Activities



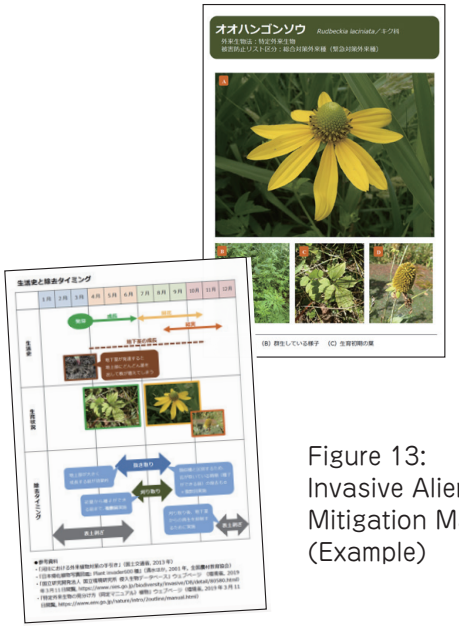


Figure 13: Invasive Alien Species Mitigation Manual (Example)

It was also confirmed that it delivers outcomes that correspond to biodiversity and ecosystem services, such as biodiversity conservation value, water purification, carbon fixation, and air quality purification. Figure 12 shows the magnitude of the economic impact of each benefit.

As an activity to improve the evaluation in the "JBIB Land Use Score Card®", plant surveys of invasive alien and conservation species have been conducted since FY2013. In FY2022, the Iwate Plant created a manual for the control of invasive alien species, such as the cutleaf coneflower, the black-eyed Susan, and the black locust, which are selected by the Ministry of the Environment in the "Alien Species List that May Damage the Domestic Ecosystem" and has been carrying out extermination activities continuously since then (Figure 13).

It can be seen that the conservation activities over the past 11 years have brought more than 1.3 billion yen in benefits to society. And continuing conservation of these forests in the future is expected to bring an additional 700 million yen in benefits to society by 2030, and more than 3 billion yen in benefits to society by 2050.

Although forest conservation efforts entail man hours and costs, this is positioned as an extremely important activity at production sites in consideration of the benefits to society.

Future continued forest conservation activities will entail a collaborative, multi-sector effort involving regions including local governments with the goal of nature positivity in view while thoroughly considering the benefits to society, taking a landscape approach.

[Reference 3]

Biodiversity Preservation Efforts at Production and Development Sites Using the "JBIB Land Use Score Card®"

The Group assessed land usage from 2019 to 2023 at domestic production and development sites. In FY2024, green area improvement efforts were rolled out at all 45 domestic Group production sites and institutes with a total area of 3,334,000 ㎡ and a total green area of 862,000 ㎡. At each location, we maintain the habitats of local flora and fauna and form an ecosystem network that links business sites with the area to foster community collaboration and improve the quality of green spaces inside business sites.
The Group uses the "JBIB Land Use Score Card®" as an indicator for assessing the results of these efforts. Initiatives at each site showed a 2.2 point improvement over FY2022 for the FY2024 average score.
Furthermore, we stratified the questions in the "JBIB Land Use Score Card®", according to their relevance to the five major impact drivers of biodiversity. Doing so allows the Group to quantitatively assess the effects efforts at each site have on impact reduction for each negative impact.

As shown below, FY2019 and later results revealed that green space improvement efforts based on the "JBIB Land Use Score Card®" have improved the positive impacts of all drivers (Figure 14).
To lessen negative impacts, each business site is being advised by environmental experts at consulting companies (Regional Environmental Planning, Inc.) and is engaging in the following efforts.

- Green space planning in harmony with the natural environment of the surrounding area and establishment and execution of management plans
- Sustainable maintenance utilizing natural circulation
- Extermination of invasive alien species
- Preservation of rare species
- Communication with stakeholders

From among these, bolstering efforts on the invasive alien species impact driver has shown striking improvements.

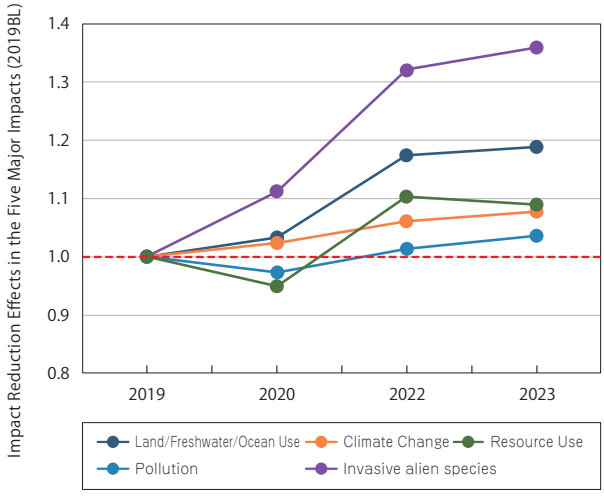


Figure 14: Contribution Analysis to the "JBIB Land Use Score Card®" Five Major Impact Drivers

(a) Examples of species subject to extermination (spear thistle)

(b) Rare animal habitat examples
Tohoku salamander
(Iwate Plant of SEKISUI MEDICAL CO., LTD.)

Figure 15: Invasive Alien Species and Rare Species Identified in the Survey

*The "JBIB Land Use Score Card®" is the result of the Japan Business Initiative for Biodiversity (JBIB) working group, and promotes the use of the Association for Business Innovation in harmony with Nature and Community® promotion tools to contribute to the evaluation of biodiversity contribution at land owned by companies.
It is a sheet that assesses the area, quality, and management framework of green spaces at business sites based on a score with a total of 100 points.

The many invasive alien species that the Group sees in the surrounding area include plants that have a negative impact on the ecosystem, such as threatening the habitat of native species, and plants that could be harmful to humans.
With these circumstances in mind, the Group has been conducting ongoing surveys at 36 plants and business sites since FY2018 on invasive alien species and rare plants at business sites and the surrounding area with the help of experts (Figure 15).
The surveys identified which species must be exterminated and which should be preserved, and information on appropriate extermination measures and timelines have been included in a manual of countermeasures. Extermination activities are currently ongoing based on the manual (Figure 13).
To maintain and create a better environment at business sites, we believe it is important to focus on invasive alien species and conservation species (rare species) and engage in green space management with biodiversity in mind.
In the future, we plan on continuing to promote initiatives using the "JBIB Land Use Score Card®" and increasing positive impacts on biodiversity at sites.

[Reference 4] Verification of LEAP Analysis Southeast Asia Water Risk Solutions

<Background and Purpose>

As shown by the LEAP analysis results in Figure 16, to reduce water risks, the Group believes that strengthening water infrastructure in applicable areas is effective. In particular, "P: Prepare" stage, the Group used LIME3* for the life cycle assessment to identify trade-offs, namely what kind of solutions would have a positive impact on natural capital and whether they would have a negative impact on other issues, and effects. (*case studies at the BRIDGE workshop)

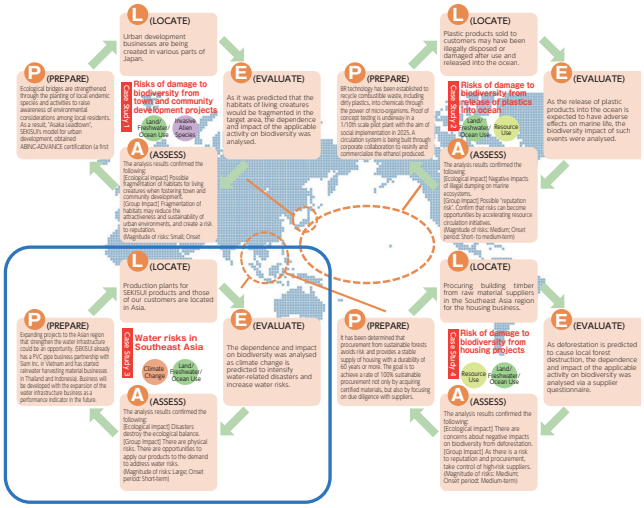


Figure 16: LEAP Analysis Results

<Verification Method>

One example would be the Group's assessment of products that function to strengthen water infrastructure. Some examples of this would be rainwater storage materials or reservoirs, which enhance the rainwater storage capacity of the ground during torrential rain.

- Resin rainwater storage materials made of recycled resin
  (e.g., Group product Cross-Wave)
- Resin rainwater storage materials with the same functionality as those made with virgin resins
- Reservoir: Common concrete water tank

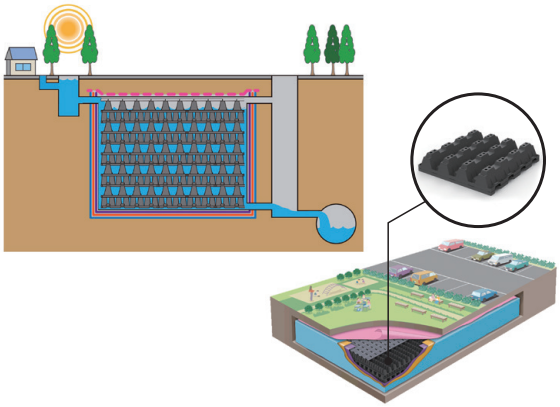


Figure 17: Cross-Wave Features (outline drawing)

Cross-Wave Product Features

- Because it is highly porous, it can store underground rainwater once it is buried and can gradually release it into rivers, contributing to mitigating and preventing disasters.

⇒ Reduces water risks during times of disaster

- Due to its superior load bearing capabilities and material design, after being buried, the area can be used for athletic fields, parking lots, lawns, etc., allowing for land use.

⇒ Enables continued land use

- The raw materials are recycled (recycled polypropylene), and after construction and burying, the surface of the ground can be used as a green space.

⇒ Contributes to resource recycling and low carbon efforts

We conducted verification of the raw materials process, production process, and land usage process in use, studying which solution should be adopted and which initiatives to implement in the LEAP "Prepare" stage (Figure 18).

The life cycle environmental impact is calculated in the following process.
Raw material → Manufacturing → Usage → Disposal

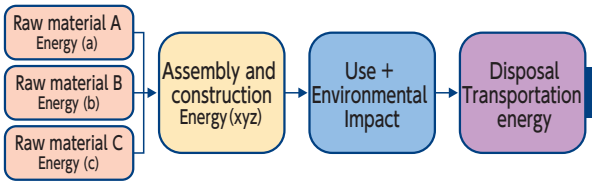


Figure 18: Process Drawing

[Verification 1] Impact Drivers of Climate Change and Resource Use

The Group has assessed the impact of raw materials used in manufacturing products that contribute to a stronger water infrastructure on climate change and resource use. Assuming both cyclical and non-cyclical types, calculations and verifications based on LIME2 logic were conducted for the product life cycle (Figure 19).

- Cyclical resources: Use of recycled resin (e.g., Cross-Wave, etc.)
- Non-cyclical resources: Products with the same functionality as those made with virgin petroleum-derived resins

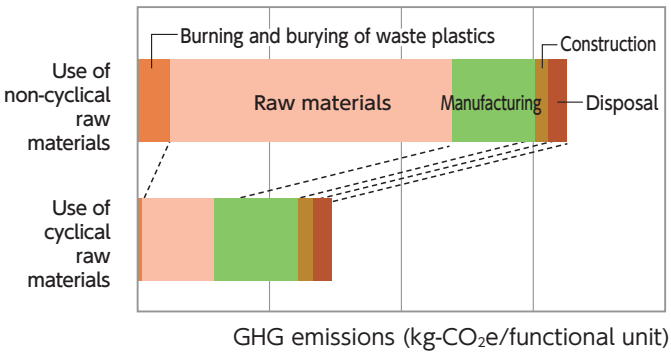


Figure 19: Effects on Climate Change and Resource Use Utilizing Cyclical Raw Materials

Using cyclical resources (recycled resin) revealed that the impact on resource use in raw materials can be reduced and that GHG emissions from energy burdens due to burning or burying waste plastics can be reduced, or in other words, the impact of climate change can be reduced. Furthermore, it has also become clear that using renewable energy in product manufacturing significantly reduces GHG emissions at the manufacturing stage.

[Verification 2] Impact Driver of Land/Freshwater/Ocean Use

Regarding the specifications for products that contribute to stronger water infrastructure, the Group compared product design that maintains land use, such as Cross-Wave rainwater storage materials during use, and product design that requires land reform, such as reservoirs. Additionally, LIME3 was used to calculate and verify the impact on biodiversity and the degree to which the accompanying economic impact will be mitigated.

The impact on land differs significantly depending on the state of usage before modification and the country and region. Therefore, an assessment was carried out according to each land type and country to determine pre-installation status and the effects of maintained land usage due to business developments.

When modifying land to strengthen the infrastructure, assessing the impact on biodiversity, which is an external environment, shows that the closer the land is to a natural state (grassland > forest > farmland), the more significant the impact is. At the same time, the Group confirmed the trend of increasingly significant effects on maintaining land use as mentioned. The assessment showed that the patterns of such trends are the same in any country (region). On the other hand, the Group confirmed that the economic impact of maintaining land is different depending on the state of the land before construction and the country (region) (Figure 20).

The above shows that assessing the status of land before construction offers hints on how to shift to a better direction in regard to the impact on biodiversity and the economy when building products to strengthen the infrastructure.

Regarding Cross-Wave, selecting recycled raw materials and construction methods and usage types that allow for land maintenance verified that the product design has a positive impact on biodiversity. Instead of infrastructure products alone, conducting impact assessments on biodiversity also links to consideration of more effective business measures in terms of the economy, society, and environment without trade-offs. The Group also confirmed that it is a useful method for achieving nature positivity.

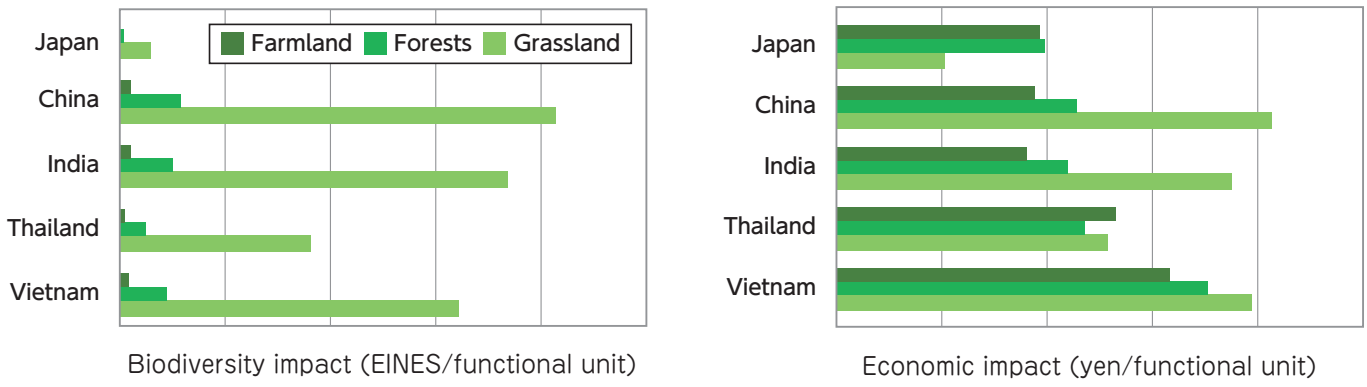


Figure 20: The Effects and Economic Value on Land/Freshwater/Ocean Use when Maintaining Land Usage Status

4-4. Consideration of the Impacts of Business Activities on Biodiversity

Various factors are considered to have an impact on biodiversity in the Group's business activities. With the aim of realizing an earth with maintained biodiversity, that is, nature positivity, the extent to which SEKISUI's business activities, mainly production activities, have decoupled reduction of environmental impact was examined (Figure 22).

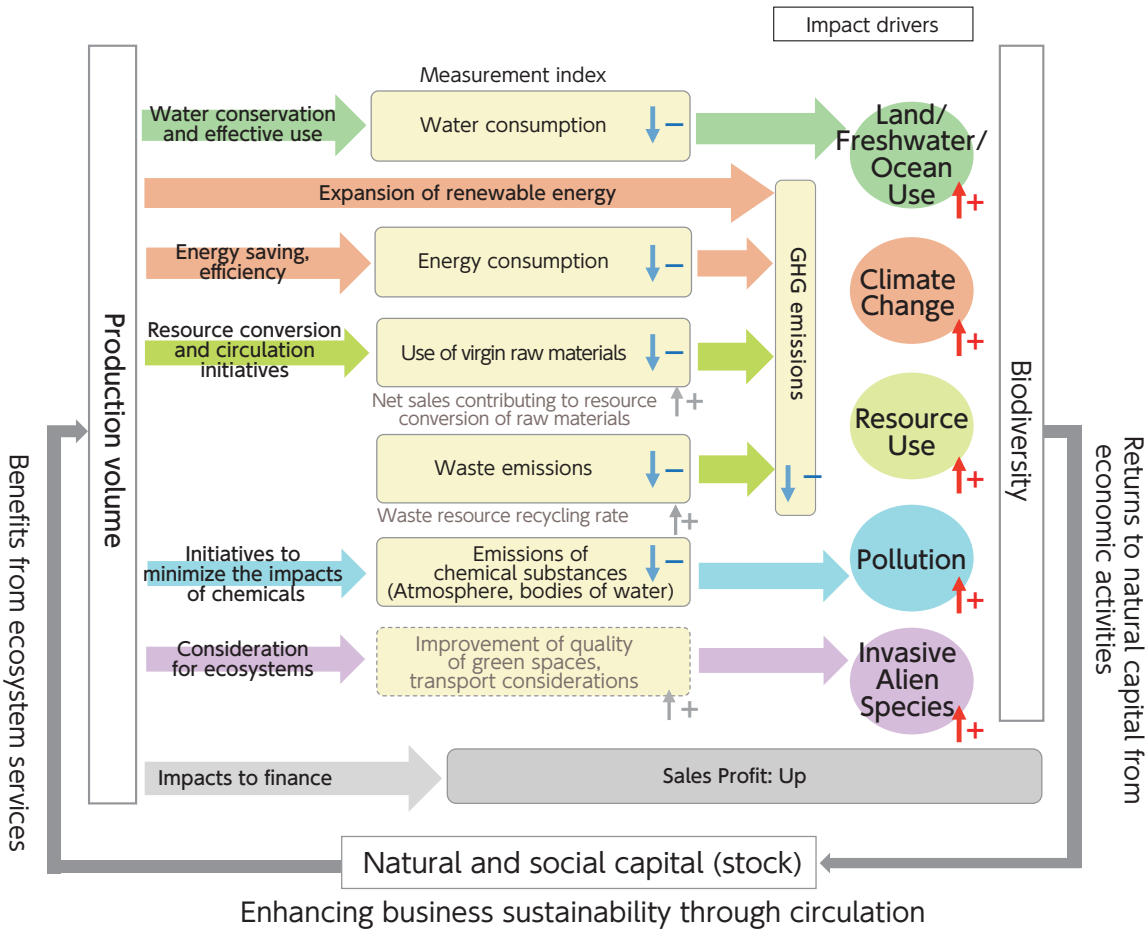


Figure 21: Impact Paths Based on Environmental Indicators of Business Activities Affecting Biodiversity*
"SEKISUI Decoupling Nature Model"

*Impact path: Pathways through which corporate activities impact on the company's future finances.

Excluding invasive alien species, the Group confirmed whether the indicators showing environmental impact on production volume were decoupled for four of the five impact drivers. In line with setting a 1.5℃ target again, FY2019 was used as a baseline year for GHG emissions to compare the fluctuations of each indicator. The results are shown in Figure 22.

The Group confirmed that GHG emissions due to business activities were decoupled from production volume fluctuations. Put simply, it indicated that it reduces the negative impact on natural capital, regardless of the amount of production.

On the other hand, it was confirmed that the quantity of water intake and VOC air emissions, etc., are not yet decoupled from the production volume. The need for decoupling of each of these items was recognized and a shift to strategic management was found to be necessary to achieve the long-term goals of each environmental issue.
In the current mid-term plan (2023-2025), these analysis results have been taken into account and action items have been set.

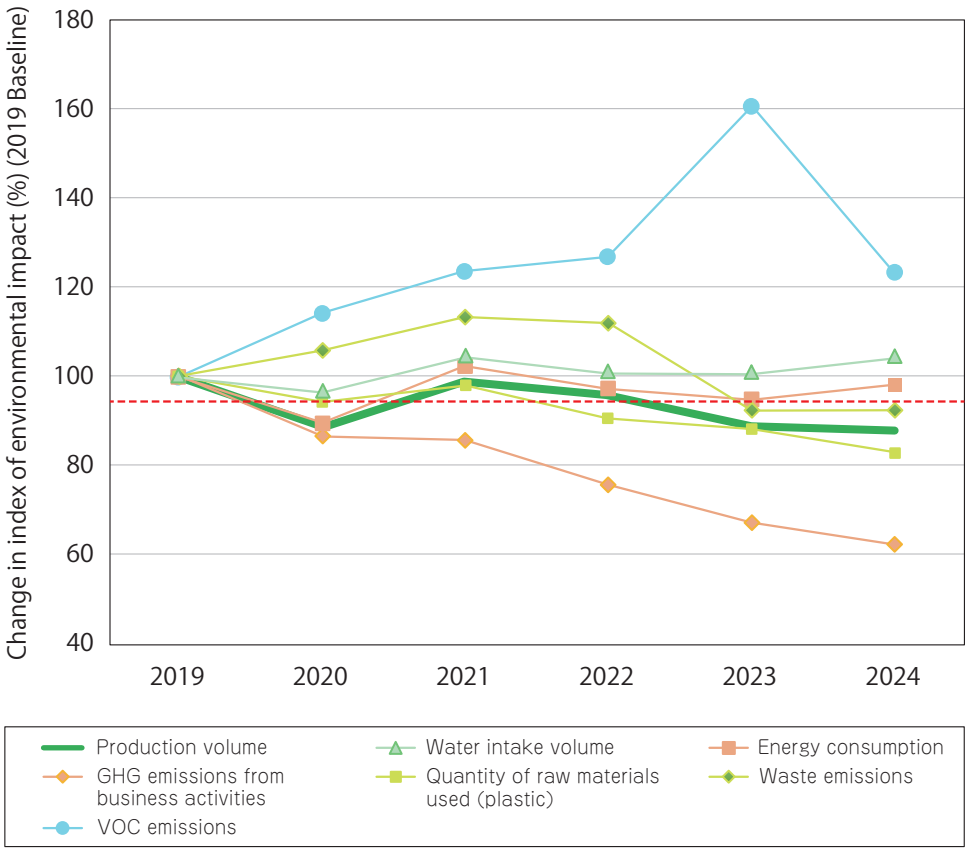


Figure 22: Confirmation of Decoupling of Production Activities and Environmental Impacts Affecting Biodiversity

[Overview]
With the 'Earth with Maintained Biodiversity' as mentioned in the 2050 Long-term Environmental Management Vision in mind, the SEKISUI CHEMICAL Group is visualizing the relationship between corporate activities and natural capital, and has set five indicators based on scientific grounds.
These indicators are not merely for environmental monitoring, rather, they are for measuring how much one's business activities are giving back to natural capital and for clarifying the results of strategic execution and the next step to take.

In the current medium-term plan (2023-2025), the Group is promoting the seven initiatives described in "4-3. Strategies Developed from Analysis Results". Management indicators and goals that are particularly important to managing the progress are shown in Table 7. The first step is to shift from initiatives that have already been launched to activities that take biodiversity (natural capital) into consideration, and to consider ways to reduce negative impacts on natural capital.
Also, the impact and dependence on natural capital will be reviewed and key aspects that need to be addressed will be identified.

Table 7: Management Indicators and Targets for Biodiversity

KPI		Rate of return on natural and social capital from corporate activities	Rate of return to the important aspects of nature	Procurement policy penetration rate among suppliers	Scores for the quality of green space at business sites using the "Land Use Score Card®"	Monetary support for society's natural capital return activities
Impact drivers to be evaluated		Four impact drivers other than invasive alien species	Four impact drivers other than invasive alien species	Resource Use	Land use	Five impact drivers
Overview		Quantify positive impacts of corporate activities on nature and society (e.g., CO_2 absorption, educational effects through employee environmental training, ecosystem services) relative to the use of raw materials, water, land, and other resources.	Visualize the effects of contributing to avoiding the extinction of organisms and habitat recovery as a ratio to loss aversion.	Calculate the extent that products and business activities have on the primary production of plants (biomass).	Manage impacts on the five major impact drivers such as supplier procurement policy penetration rate, the "JBIB Land Use Score Card®" improvement level, etc.	Measure community co-creation and investment in social projects (e.g., nature restoration base support amount, etc.).
Links with the seven initiatives		(i) (ii) (iii) (vi)	(i) (ii) (iii) (vi)	(iv) (vii)	(i)	(v)
Target	2025	95% or more	Set baseline	100% penetration rate	+3 points (compared to 2022)	Expand (compared to 2022)
	2030	100% or more	Reducing negatives	Sustainable procurement	—	—
	2050	Maintain 100% or more	Turn to positive	—	—	—

*Seven initiatives: (i) Review of manufacturing processes (ii) Review of nature positive product design
(iii) Expansion of contribution through products to enhance sustainability
(iv) Strengthening efforts in raw material procurement (v) Support for social change
(vi) Human resources development (vii) Stakeholders collaboration

5-1. Rate of Returns to Natural and Social Capital by Corporate Activities and Rate of Returns to Narrowly Defined Nature Aspects

Rate of returns to natural and social capital by corporate activities (= SEKISUI Environmental Sustainability Index): 108.0%
Rate of returns to the impact regarding the aspect of Nature
・Rate of returns to biodiversity: 29.6%　・Rate of returns to plant biomass: 57.2%

In the environmental long-term vision "SEKISUI Environment Sustainability Vision 2050", our Group aims to realize "an earth with maintained biodiversity". For this reason, initiatives that utilize the net positive* concept regarding ecosystems are promoted (see Figure 8, P68).

* Net positive: Refers to a situation in which the benefits of alternative biodiversity measures outweigh the loss of biodiversity.

As an integrated index for confirming the degree of progress toward the environmental long-term vision, the rate of return to natural and social capital is calculated as the "SEKISUI Environmental Sustainability Index".
In FY2024, the rate was 108.0%, maintaining the rate above 100%.

Calculation method
Using the LCA calculation system MiLCA, which utilizes the LIME2 concept, the negative and positive impacts of the Group's corporate activities on natural and social capital were calculated as a rate of return using the following formula:
Rate of return to natural and social capital (%) = (Return to natural and social capital / use of natural and social capital) x 100

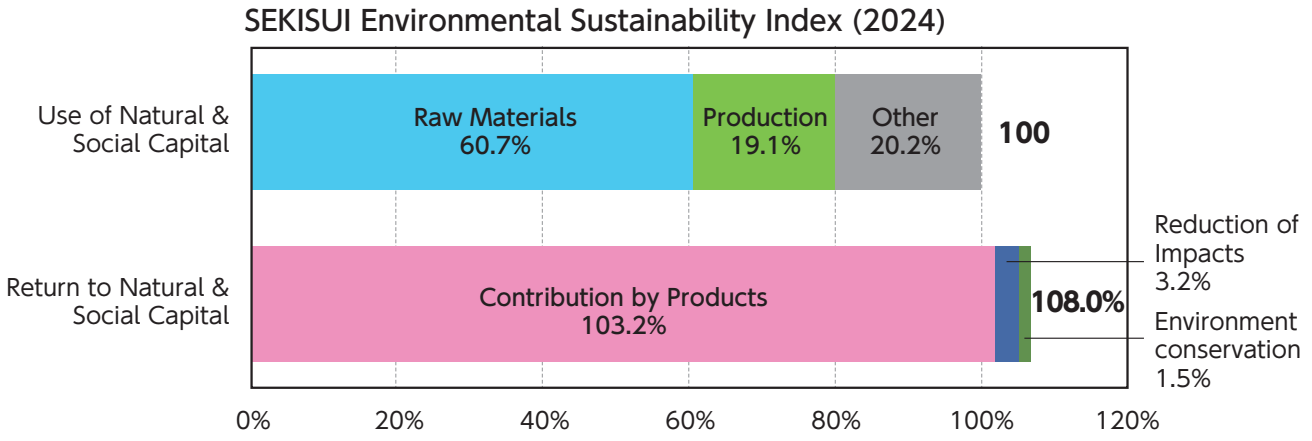


Figure 23: Rate of Returns to Natural and Social Capital by Corporate Activities

For "Returns to nature and social capital" in Figure 23, the impact on plant biomass (primary plant production) and biodiversity (number of extinct species of organisms) is ascertained and monitored as the impact (rate of return) on natural capital. The rates of return to plant biomass and biodiversity are shown in Figure 24. Both have yet to reach rates of return of 100% or more, but corporate activities toward nature positivity by addressing environmental issues such as climate change and resource circulation are steadily implemented.

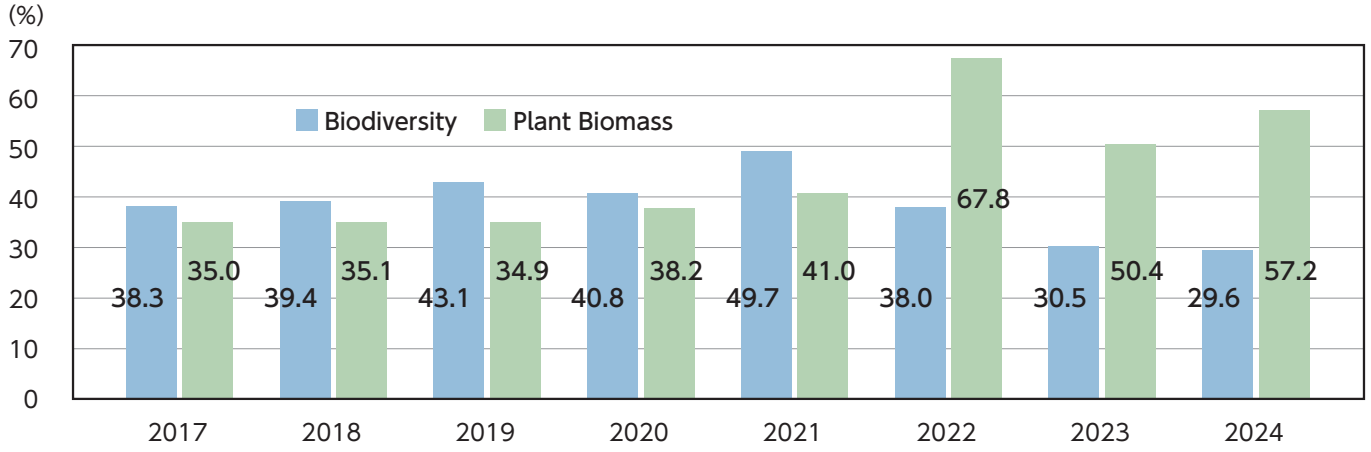


Figure 24: Impacts (Rate of Return) of Company Activities on the Two Nature Aspects

The database has been updated to include larger impact factors for environmental impact assessments related to biodiversity and plant biomass aspects. Therefore, the change from FY2022 to FY2023 includes the impact of the changes to the database. However, it is clear that the rate of return for these two aspects has not yet reached more than 100%.
Activities to reduce negative impacts on land use will continue by improving the quality of green spaces at production sites and biodiversity considerations in town and community development projects.
They also have the benefit of reducing pollution and negative impacts on resources through products to enhance sustainability that support technological advances in IT equipment.
The return rate for these items is positioned as an indicator showing the impact on natural capital including biodiversity and on social capital. However, assessment method constraints make it impossible to assess the impact on invasive alien species, which is one impact driver. This assessment is also an average rating rather than a rating for each area in which the Group operates. In light of the net positive approach, the return on the impact is currently insufficient, however, we recognize the necessity of also considering return assessments from the viewpoint of subdividing areas in the future.

Recognizing this point, the Group will strive for a comprehensive understanding of risks, and will also consider methods and indicators to directly assess key impacts moving forward.

5-2. Other Relevant Indicators

"JBIB Land Use Score Card®" score: FY2024 performance: +2.2 points (compared to FY2022)

Of the key impact drivers currently identified, the penetration of the procurement policy for suppliers is considered to be important for the resource use, and have set a penetration rate indicator and are working to confirm it (Table 8).

In manufacturing, land use is another impact driver that is directly influenced by production sites. Initiatives that serve as ecological bridges to avoid fragmenting the habitats of local flora and fauna are ongoing. These activities are indicators for improving the "JBIB Land Use Score Card®", and efforts are under way to improve the environmental situation.
Activities showed a 2.2 point improvement over FY2022 for the FY2024 average score.

Furthermore, as shown in Figure 9, SEKISUI Biodiversity Grand Design, in Chapter 4-3, the Group considers it important not only to work towards returns to natural capital through its corporate activities, but also to support returns to natural capital by society.

The "Innovation Inspired by Nature" research support program, which has been ongoing since 2002, is an example of supporting activities for social change.
The program provides grants to researchers for the development of biomimicry technology, believing that learning from the wisdom of nature will lead to the realization of a nature-positive society. By providing this grant to researchers outside the company, a cumulative total of 319 (as of the end of March 2025) technological developments have been supported.
The setting of indicators and other measures to stimulate such activities will be considered in the future.

In addition, water risk assessments have already been rolled out in the areas where SEKISUI conducts business activities. In the future, water risks will also be assessed and examined according to their importance, including how they impact on the biodiversity of drainage basins.

Table 8: Management Indicators and Targets for Biodiversity (Excerpt)

KPI		Procurement policy penetration rate among suppliers	Scores for the quality of green space at business sites using the "Land Use Score Card®"	Monetary support for society's natural capital return activities
Impact drivers to be evaluated		Resource Use	Land use	5 Impact drivers
Links with the seven initiatives		(iv) (vii)	(i)	(v)
Target	2025	100% penetration rate	+3 points (compared to 2022)	Expand (compared to 2022)
	2030	Sustainable procurement	—	—
	2050	—	—	—

SEKISUI CHEMICAL Group's aim to realize Nature Positive is the same as that set out in our long-term environmental vision, which is to "realize an earth with maintained biodiversity"; in other words, to maintain a return on natural and social capital of at least 100%. Therefore, the Group endorses the approach of the TNFD Forum and joined the Forum in July 2023, and registered as a TNFD Adopter in January 2024 to express its willingness to disclose information in accordance with the TNFD recommendations.

The Group views biodiversity as an important element in natural capital along with climate change and water risks, and is promoting strategic initiatives with the goal of achieving "Earth with Maintained Biodiversity" (nature positivity) by 2050. These efforts will contribute to preserving the global environment and directly link to improved corporate value.
The foundation consists of seven key efforts (review the manufacturing process, nature positive product design, co-creation with the supply chain, collaboration with local communities, human resources development, etc.) that enhance consideration for biodiversity across the entire value chain.

These initiatives translate the return rate to nature aspects according to products to enhance sustainability, the deployment rate of procurement policies to suppliers, and keeping the natural capital balanced through human resources indicators into management indicators for continuous progress management and visualization.
These KPIs are compatible with the five impact drivers (climate change, resource use, land/freshwater/ocean use, pollution, and invasive alien species), and can quantitatively identify the impact of corporate activities on natural capital (Figure 25).

Implementing such assessments and activities show a clear positive relationship rather than a trade-off when it comes to biodiversity preservation efforts improving corporate value in the areas of reducing business risks, bolstering readiness for future society, and improved evaluations from the capital market.
The SEKISUI CHEMICAL Group is aiming for items related to impact drivers with 2050 in mind, such as the environmental issue goals of achieving carbon neutrality and a circular economy, as well as achieving a society that coexists with nature by collaborating with the supply chain and regional communities to help land and water ecosystems to recover and become sound, or in other words, aiming to establish nature positivity and sustainable business operations.

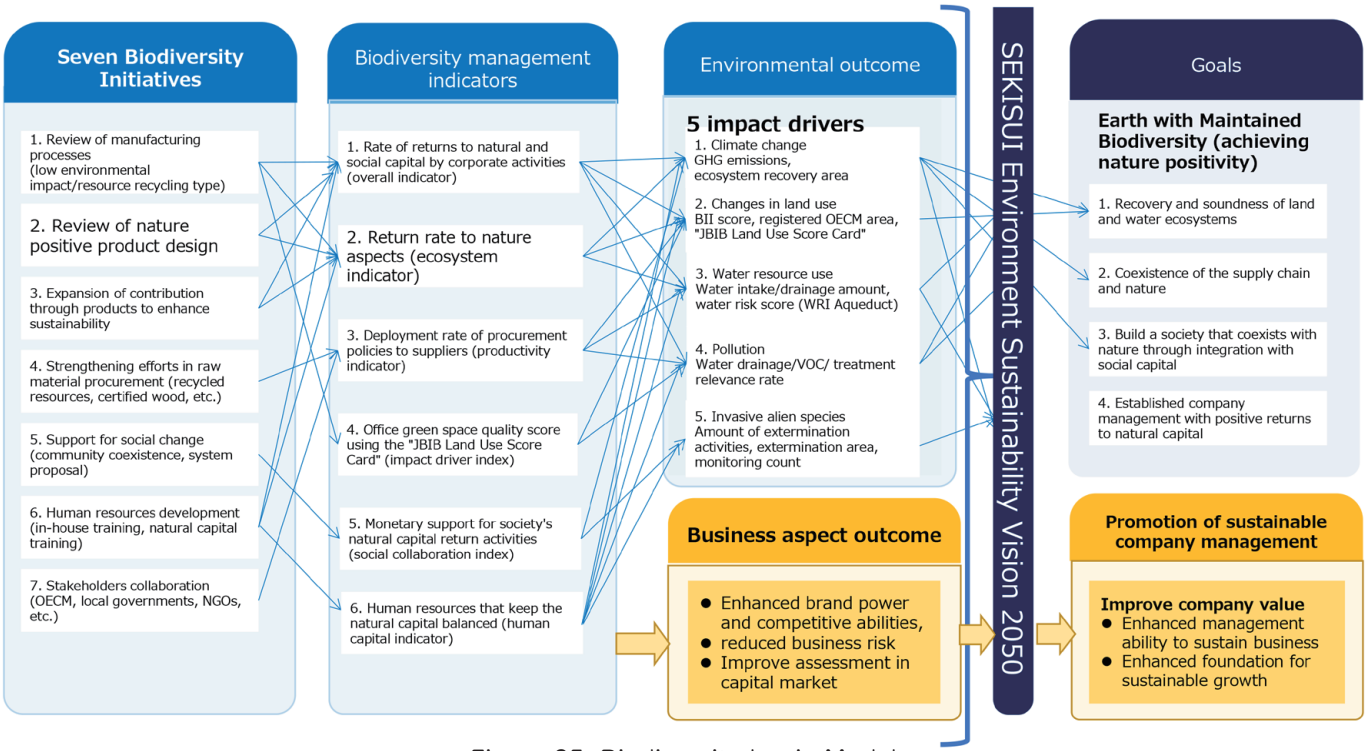


Figure 25: Biodiversity Logic Model

SEKISUI CHEMICAL Group is expanding its products and businesses that contribute to solving social issues. On the other hand, SEKISUI has not yet necessarily had a sufficient positive impact on global environmental issues or on the regions in which the Group operates. The assessment of recognized risks, particularly climate change issues, will begin in FY2019 and information will be published from FY2020 via the TCFD report and updated annually. Also, the recognition of risks, particularly in biodiversity, are being assessed through a review of current Group dependencies and impacts and the positioning of existing initiatives since FY2022 and reported via the TNFD report.

Furthermore, in FY2023, progress was made in recognizing the risks that companies pose to the external environment and the risks that the external environment poses to companies through various new assessments and analyses from the perspective of biodiversity by clarifying dependencies and impacts. Keeping in mind the double materiality in environmental issues, such as climate change and biodiversity, it is believed that formulating and promoting measures and strategies to mitigate risks and convert them into opportunities can improve corporate sustainability and solve social issues such as environmental challenges.

In the current medium-term management plan (2023-2025), solutions to multiple environmental issues will be considered and implemented that do not result in trade-offs.
Such efforts will lead to the simultaneous realization of the goals set out for all environmental issues; that is "achieving carbon neutrality" for climate change issues, and "realization of an earth with maintained biodiversity" for biodiversity issues.
The Group will continue to promote initiatives that contribute to long-term goals on environmental issues and company growth.