

Environment



Environment

Environmental Policy

Policy and Basic Concept

The ITOCHU Group Environmental Policy

Global environmental concerns such as climate change pose a critical threat to the sustainability of earth. Given the global nature of our operations, it is a top management priority for us to address these concerns and contribute to building a sustainable society. We will do so by committing to make continuous improvements to our environmental management system, reducing the environmental impacts of our businesses throughout their lifecycles, and engaging in business activities that make positive contributions to the environment.

1. Compliance with Laws and Regulations

We shall comply with international declarations, agreements, and treaties, as well as with the laws and regulations of the countries and regions in which we operate. We shall also comply with any other agreements that we have consented to.

2. Response to Climate Change

We shall reduce greenhouse gas emissions and increase the efficiency of energy use within our own operations, as well as externally provide products and services that contribute to the mitigation and adaptation to climate change.

3. Environmental Pollution Prevention

We shall prevent and reduce environmental pollution caused by chemical substances and oils, reduce emissions of air pollutants, and reduce and properly process hazardous waste and wastewater.

4. Promotion of Resource Circulation

We shall contribute to the formation of a circular society by promoting the sustainable use of resources (such as fossil fuels, minerals, food, animals and plants), a reduction in the amount of resources used, a reduction in the amount of waste discharged and recycling across our business investments and the supply chain of our products and services.

5. Conservation and Effective Use of Water Resources

We shall reduce water consumption through efficient water use and recycling, as well as take necessary measures to appropriately treat effluents.

6. Biodiversity Conservation

We shall recognize the value of the benefits that we receive from the natural ecosystem, minimize our impact on biodiversity, and contribute to its conservation.

7. Transparency

We shall proactively disclose environmental information and maintain a communicative relationship with our stakeholders.

Fumihiko Kobayashi
Member of the Board
Executive Vice President
Chief Administrative Officer
Established in April 2020
Revised in April 2022

Environmental Management

Policy and Basic Concept

We strive initiatives to conserve the global environment to be a top management priority for us. This is under recognition that the business activities ITOCHU performs in Japan and overseas (e.g., the provision of various products and services, the development of resources, and business investment) are closely connected to global environmental problems.

Therefore, we established the Global Environment Department (current Sustainability Management Division) in 1990 ahead of other trading companies.

We are ensuring compatibility of both offense and defense — offense to promote environment conserving business and defense to take a precautionary approach to environmental and social risks — based on our environmental policy. The aim of this is to fulfill our corporate mission of “*Sampo-yoshi*.” We are also engaged in global corporate management and activities with a constant awareness of global environmental problems.

We reorganized and integrated our conventional environmental management structure into a structure to promote sustainability in line with the revision to this policy in April 2018. We have built and are maintaining and operating an efficient environmental management system in accordance with the ISO14001 standards.

■ The ITOCHU Group Environmental Policy (P38)

Structures and Systems

ITOCHU was the first trading company to acquire ISO14001 certification in 1997 and is working to continuously improve its sustainability promotion system. We recognize that our business activities can have an impact on the global environment and society and so are looking to take a precautionary approach to environmental and social risks. To that end, we have built a sustainability management system to assess in advance the impact in regards to new investments in particular together with the products we handle. Under this system we formulate targets every year for items related to environmental and social risks, environment conserving businesses, saving energy, saving resources, GHG emissions reduction and other climate change related risks. We then assess and analyze the progress, and we move through the PDCA cycle to reliably achieve our targets.

■ ITOCHU's Sustainability Promotion Structure (P15)

ISO 14001 Certification of the ITOCHU Group

Group companies subject to ISO 14001 certification of ITOCHU Corporation

- ITOCHU Corporation
- ITOCHU Automobile Corporation
- ITOCHU Metals Corporation
- ITOCHU Taiwan Corporation



External Audits

ITOCHU undergo an ISO14001 certification review every year by the BSI Group Japan K.K. (BSI). We underwent the maintenance audit recently in November 2022. The latest registration certificate is valid until December 23, 2024.



EMS 657977 / ISO 14001

Internal Audits

We conduct internal sustainability audits every year based on ISO14001. In FYE 2023, we audited all 49 departments (including in the form of a self-check for 27 departments). Members of the Sustainability Management Division constitute the audit team and conduct them with emphasis on compliance audits. The implementation of internal sustainability audits over half a year leads to a precautionary approach to environmental and social risks.

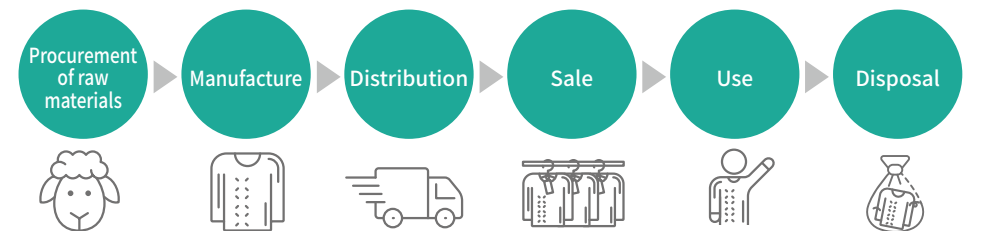


Initiatives

Assessment of Sustainability Risk in Products We Handle

ITOCHU deals in a wide variety of products on a global scale. Therefore, we believe it is vital that we assess the impact on the global environment of each product, our environmental related laws and regulation compliance situation, and our relationships with stakeholders. Accordingly, we conduct our own sustainability impact assessments on all our products. We use LCA* analytical techniques from the procurement of raw materials concerning the applicable product to their manufacturing process, use and disposal. These analysis assessment items include those related to climate change (e.g., the decrease in tropical rainforests, desertification and global warming) to assess such related risks. If the results of these assessments show that the impact on the global environment will be greater than a specific score, we formulate various regulations and procedure manuals with the applicable product being subject to priority management and specific education programs.

* Life Cycle Assessment (LCA): This is the technique to assess the impact of one product on the environment in all stages of its lifecycle — from raw materials to manufacture, transportation, use, and disposal or reuse.



Environmental Management

Investigations into the Actual Conditions in Group Companies

We have continued to visit and investigate group companies having relatively high environmental impacts since 2001. The aim of this is to prevent environmental pollution by these group companies. We have investigated a total of 296 offices over the past 22 years up to the end of FYE 2023. We assess companies in these investigations by investigating their factory and warehouse facilities, their situation of drainage to rivers, and their compliance with environmental laws and regulations in addition to holding an engagement interview with their management regarding their response toward environmental challenges including climate change.

Sustainability Risk Assessments on New Investment Projects

For business investment projects that ITOCHU undertakes, the impact of the project on society and the environment, as well as the state of governance of the investment target are evaluated in advance using the ESG Checklist for Investment — a checklist that must be submitted when entering into new business investment projects. For example in relation to the risk of climate change, it includes information on energy consumption and GHG emissions. During FYE 2023, there were 57 applications of ESG Checklist. For projects that require expert knowledge, we make request to external expert to conduct investigations in advance. The project is then only undertaken upon confirming that there are no problems in the results of those investigations.



ITOCHU Europe Green Finance Framework

ITOCHU Europe Plc (ITOCHU Europe) published its Green Finance Framework in March 2019 and raised its first green loan of EUR150Million from banks including Mizuho Bank through ITOCHU Treasury Centre Europe Plc, ITOCHU's group finance vehicle for Europe and the Middle East. This is the first green finance procured by any of the Japanese trading companies. ITOCHU Europe Green Finance Framework was independently reviewed by Sustainalytics and is used for investments in energy efficient projects, renewable energy projects, etc.

• ITOCHU Europe Green Finance Framework
(<https://www.itochu.com/uk/en/sustainability/environment/index.html>)

Environmental Education and Awareness

We provide various educational programs to encourage employees to conduct environmental conservation activities. In addition, we hold environmental law and ordinance seminars and global environmental problem awareness seminars for group employees. Through these initiatives, we are striving to improve environmental awareness over the entire ITOCHU Group.

Seminars and Training Sessions

We proactively hold seminars and training sessions. The aim of these is to thoroughly inform ITOCHU Group employees about environmental related law and ordinance requirements and to raise their compliance and environmental awareness.

Inquiries from Inside and Outside the Company and Our Response to Them (FYE 2023)



Issuance of USD-Denominated Senior Unsecured SDGs Bonds

ITOCHU has decided to issue US\$500Million Senior Unsecured Bonds due 2026 to raise funds for projects that contribute to SDGs (the "SDGs Bonds"). To issue the SDGs Bonds, ITOCHU has established the SDGs Bond Framework in alignment with the Green Bond Principles, 2018, the Social Bond Principles, 2020 and the Sustainability Bond Guidelines, 2018 as administered by ICMA (the International Capital Market Association). And it has obtained an external evaluation (second party opinion) from Vigeo Eiris (MOODY'S ESG SOLUTIONS FRANCE SAS) for the conformity of our Framework with principles such as the Sustainability Bond Guidelines.

• ITOCHU's SDGs Bond (Sustainability Bond) (P201)

Climate Change (Information Disclosure Based on TCFD Recommendations)

In May 2019, ITOCHU Corporation announced our support for the TCFD* recommendations in recognition of the importance of climate-related financial disclosures. Since then, we continue working to provide information disclosure based on TCFD recommendations.

* TCFD: The Task Force on Climate-related Financial Disclosures established by the Financial Stability Board (FSB).

Policy and Basic Concept Concerning Climate Change

Recognizing climate change as one of the global environmental issues requiring the highest level of urgency, we have worked towards achieving the nationally determined contributions (NDCs) set by the Japanese government in response to the enactment of the Paris Agreement. As a Group engaged in business activities on a global scale, ITOCHU positions climate change and other global environmental issues as one of our highest priority management issues, recognizing that positioning these issues and opportunities and incorporating them into specific initiatives will lead to increases in our corporate value.

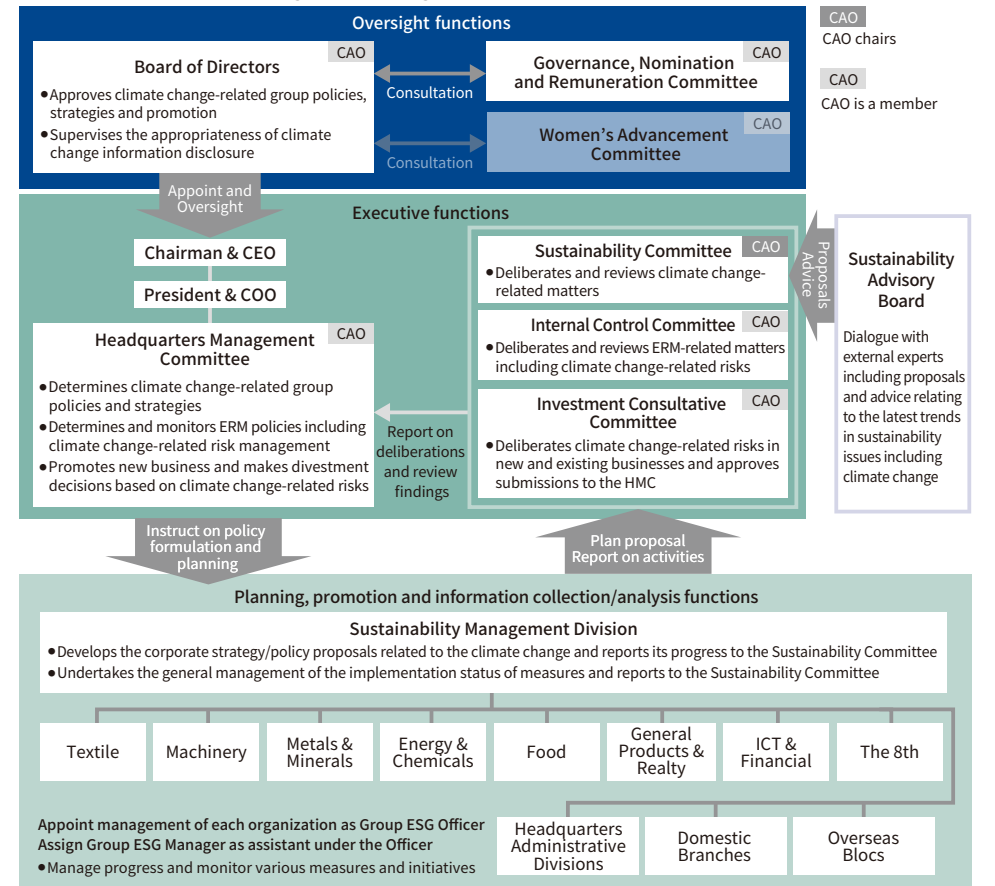
We define our initiatives related to climate change in the ITOCHU Group Environmental Activities Policies “2. Response to Climate Change: We shall reduce greenhouse gas emissions and increase the efficiency of energy use within our own operations, as well as externally provide products and services that contribute to the mitigation and adaptation to climate change.” In March 2021, our Board of Directors approved the inclusion of greenhouse gas (GHG) emissions reduction targets for 2030, 2040, and by 2050 as core targets for our Medium-term Management Plan, Brand-new Deal 2023. These targets are in line with Japan NDCs, and will help us contribute to those goals. ITOCHU is committed to fulfilling our social responsibilities.

Under our corporate philosophy of the “*Sampo-yoshi*” approach, we will increase our corporate value and promote collaborations with stakeholders on responses to climate change risks and opportunities.

Governance

ITOCHU views responding to climate change and other sustainability issues as an important management issue. Our Board of Directors gives due consideration to response policies for climate change-related risks and opportunities and GHG reduction targets and initiatives, and incorporates these policies into deliberations and decisions on annual budgets, business plans, and other core matters.

Governance System Concerning Climate Change (As of June 2023)



* CAO: Chief Administrative Officer
HMC: Headquarters Management Committee

Climate Change (Information Disclosure Based on TCFD Recommendations)

The ITOCHU Sustainability Committee is the body delegated with general management responsibilities concerning the proposal and implementation of the various policies that will enable us to respond to climate change and other sustainability matters. This Committee ascertains, manages, and evaluates climate change-related targets, the implementation status of transition plans, and current environmental and social risks and opportunities. ITOCHU's Chief Administrative Officer (CAO) is the director responsible for climate-related issues and is also a member of the Headquarters Management Committee (HMC). The CAO also serves as chair of the Sustainability Committee. The CAO provides a report to the Board of Directors approximately twice per year on matters deliberated and decided by the Sustainability Committee in addition to a report on the status of major sustainability promotion activities. This creates an organization that allows the Board of Directors to appropriately supervise business and financial strategies (including reviewing strategy and making divestment and portfolio restructuring decisions) for responding to environmental and social risks and opportunities while giving proper consideration to matters deliberated and decided by the Sustainability Committee. As the executive level, management from each company and administrative division also serving as ESG Officers participate in Sustainability Committee meetings as core members. The Sustainability Committee receives reports on climate-related matters from the Sustainability Management Division and ESG Managers from each company and administrative division. We use these reports towards progress management and monitoring for each policy and various initiatives.

In 2021, our Board of Directors approved the inclusion of growth strategy and GHG emission reduction targets in our Medium-term Management Plan, Brand-new Deal 2023. This decision reflects our commitment to the climate-related issues impacting our Company and we believe this will enable us to lead the industry in realizing a decarbonized society in enhancing our contribution to and engagement with the SDGs through business activities. Based on this decision by the Board of Directors, the Sustainability Committee deliberates specific policies and targets related to decarbonized initiatives. Each business division works continuously to implement these policies and initiatives approved by the CAO, the chair of the Sustainability Committee, and progress is reviewed by the Sustainability Committee.

The chair of the Sustainability Committee and management from each company and administrative division (ESG Officers) meet with external experts (a Sustainability Advisory Board) once a year to engage in dialogue towards making continuous improvements to our climate change response. Through this dialogue, we promote climate change countermeasures based on an understanding of society's expectations and demands on ITOCHU.

Climate-related Meetings Held by the Board of Directors and Committees	Frequency of Meetings and Reports	Main Items Deliberated or Reported on (FYE 2019 to FYE 2023)
The Board of Directors	<ul style="list-style-type: none"> Periodic reports are made at least once a year Results <ul style="list-style-type: none"> Once in FYE 2019 2 times in FYE 2020 Once in FYE 2021 Once in FYE 2022 3 times in FYE 2023 	<ul style="list-style-type: none"> FYE 2019 <ul style="list-style-type: none"> Announcement of support for the TCFD recommendations FYE 2020 <ul style="list-style-type: none"> Disclosure based on the TCFD recommendations, calculation of Scope 3 GHG emissions FYE 2021 <ul style="list-style-type: none"> GHG reduction target, Disclosure based on the TCFD recommendations FYE 2022 <ul style="list-style-type: none"> Creation of Medium-term Management Plan, Brand-new Deal 2023. (Growth strategy and GHG emission reduction targets towards leading the industry in realizing a decarbonized society in enhancing our contribution to and engagement with the SDGs through business activities.) Report on ITOCHU SDGs/ESG initiatives FYE 2023 <ul style="list-style-type: none"> Confirmation of the Material Issues Policy for GHG emission reduction Monitoring of Scope 1/2/3 results
Sustainability Committee	<ul style="list-style-type: none"> Usually held 1 ~ 2 times a year Results <ul style="list-style-type: none"> Once in FYE 2019 2 times in FYE 2020 Once in FYE 2021 2 times in FYE 2022 3 times in FYE 2023 	<ul style="list-style-type: none"> FYE 2019 <ul style="list-style-type: none"> Announcement of support for the TCFD recommendations FYE 2020 <ul style="list-style-type: none"> Disclosure based on the TCFD recommendations, calculation of Scope 3 GHG emissions FYE 2021 <ul style="list-style-type: none"> GHG reduction target, Disclosure based on the TCFD recommendations FYE 2022 <ul style="list-style-type: none"> Confirmation of Scope 1/2/3 results, status of progress on reduction targets FYE 2023 <ul style="list-style-type: none"> Confirmation of the Material Issues Policy for GHG emission reduction Monitoring of Scope 1/2/3 results

Climate Change (Information Disclosure Based on TCFD Recommendations)

Strategy

ITOCHU applies the Policy and Basic Concept Concerning Climate Change to analyze scenarios based on TCFD recommendations (analysis of transition and physical risks and opportunities associated with climate change). We use the results of these analyses to realign our business strategy and portfolio.

Climate Change-related Risks and Opportunities

ITOCHU is engaged in various businesses in locations around the world. Each business is impacted by various short-, medium-, and long-term climate change transition risks and physical risks. As such, ITOCHU globally identifies, evaluates, and manages risks and opportunities with the possibility to have a material financial impact on our business, supply chain, and strategy. We conduct such analysis and evaluation throughout each business proposal management process and in our environmental and social risk management processes, which includes climate change.

Material Climate Change-related Risks and Opportunities (risk criteria)

Climate-Related Risks and Opportunities	Impact of Climate-related Risks and Opportunities on the Organization's Business, Strategy, and Financial Planning	Impact Timeline*	Impacted Value Chains	Related Businesses	
Transition Risks and Opportunities	Policy and Legal Systems	<ul style="list-style-type: none"> If countries around the world take a more aggressive approach in their GHG emissions reduction targets and subsequently strengthen laws and regulations regarding corporate emissions, fossil fuel demand may see a sharp decrease. Increased operating costs due to carbon pricing (carbon tax, etc.) or business regulations 	Medium-term Long-term	Upstream, ITOCHU Group	Power generation business, operations, Fossil fuel business, Iron ore business, Automobile business, Chemicals business
	Technical Innovation	Business opportunities that contribute to combatting and adapting to climate change are expected to increase (e.g., renewable energy, energy storage systems, low-carbon fuels, low-carbon emission steelmaking raw materials, etc.)	Short-term Medium-term Long-term	ITOCHU Group	Renewable energy, energy storage system businesses, Low-carbon fuel business, New material business, Iron ore business
	Changes in Market Conditions	Demand for certain products and services may decrease due to market risks related to public policy, laws and regulations, or technological advancements (e.g. clean technology)	Short-term Medium-term Long-term	Upstream, ITOCHU Group	Fossil fuel business, Chemicals business, Automobile business, Renewable energy, energy storage systems businesses, New material business, CCUS/emissions credit-related businesses
Physical Risks and Opportunities	Acute Physical Risks and Opportunities	Operations may be impacted or damaged by increased occurrences of abnormal weather patterns (e.g. droughts, floods, typhoons, hurricanes, etc.)	Short-term Medium-term Long-term	Upstream, ITOCHU Group, downstream	Food business, Forestry-related businesses, Mining business
		We may be able to strengthen customer retention and/or attraction by strengthening our supply chain resilience to extreme weather patterns and promoting stable supply as a value proposition	Short-term Medium-term Long-term	Upstream, ITOCHU Group, downstream	Food business, Forestry-related businesses
	Chronic Physical Risks and Opportunities	Our capability to maintain and increase the quantity of agricultural and forestry-related harvests, as well as products manufactured using these yields, may be impacted by climate-related changes such as increasing temperatures and likelihood of droughts.	Medium-term Long-term	Upstream, ITOCHU Group, downstream	Food business, Forestry-related businesses

* Short-term: less than 1 year, medium-term, up to 3 years, long-term: 4 or more years

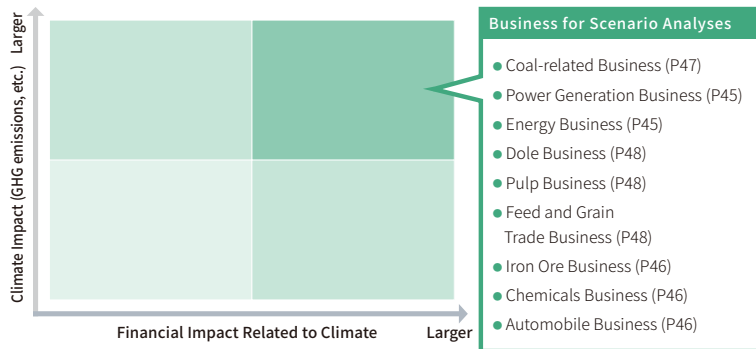
Climate Change (Information Disclosure Based on TCFD Recommendations)

Scenario Analysis

Scenario Selection

We consider which businesses to include in our scenario analysis by evaluating the business sectors that are highly susceptible to the impact of operating environment changes caused by climate change mitigation. From this evaluation, we identified the power generation business, energy business, iron ore, automobile, and chemicals businesses and coal business as businesses that would be significantly impacted by political, regulatory, and other transition risks. We then selected the Dole business feed and grain trade and the pulp businesses for inclusion in our scenario analysis as business highly susceptible to physical risks related to climate change.

When identifying business sectors that are highly susceptible to the impact of operating environment changes caused by climate change mitigation, we referenced the four non-financial sectors (energy, transportation, materials & buildings, and agriculture, food, & wood products) specified by the TCFD as being highly susceptible to the latent impact of climate change. The abovementioned five businesses are included in these sectors.



Definition of Scenario Groups

When considering our scenario analysis, we referenced materials published by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC). These materials are highly recognized internationally for the credibility, are referenced in TCFD recommendations, and cover a broad range of business domains. As a result, we set the following three scenarios.

Scenario		4°C	<2°C	1.5°C
Image of society		The policies of countries, such as the Intended Nationally Determined Contributions (INDC) established in accordance with the Paris Agreement, are implemented. Nevertheless, the average temperature at the end of this century rises by 4°C. This is a society in which there is a high likelihood climate change (e.g., a rise in temperature) will impact business.	The average temperature rise is kept below 2°C until the end of this century. Bold policies and technological innovation are promoted. This is a society in which social changes due to the transition to a de-carbonized society are highly likely to impact business.	Bold policies and technological innovations will be promoted to limit the average temperature increase to 1.5°C until the end of the century and achieve sustainable development. This is a society in which social changes due to the transition to a de-carbonized society are highly likely to impact business.
Reference scenarios	Transition aspects	<ul style="list-style-type: none"> ● Stated Policies Scenario (IEA WEO2021) ● Stated Policies Scenario (ETP WEO2020) ● Stated Policies Scenario (IEA WEO2019) ● Reference Technology Scenario (IEA ETP2017), etc. 	<ul style="list-style-type: none"> ● Sustainable Development Scenario (IEA WEO2019) ● 2°C Scenario (IEA ETP2017), etc. 	<ul style="list-style-type: none"> ● Net Zero Emissions by 2050 Scenario (IEA WEO2021) ● Sustainable Development Scenario (IEA WEO2021), etc.
	Physical aspects	<ul style="list-style-type: none"> ● RCP8.5 (IPCC AR5), SSP5-8.5 (IPCC AR6), etc. 	<ul style="list-style-type: none"> ● RCP2.6 (IPCC AR5), etc. 	<ul style="list-style-type: none"> ● RCP2.6 (IPCC AR5), SSP1-1.9, SSP1-2.6 (IPCCAR6), etc.
Risks and opportunities		Risks and opportunities in terms of physical aspects will be more likely to surface	Risks and opportunities in terms of transition aspects will be more likely to surface	Risks and opportunities in terms of transition aspects will be more likely to surface

* The IEA WEO 2019 Sustainable Development Scenario is the following scenario: The world works to keep the rise in temperature to less than 2°C – if possible, 1.5°C. At the same time, this is a scenario in which the targets of everyone being able to use energy and improving air pollution are achieved.

* IEA WEO 2021 "Net Zero Emissions by 2050 Scenario" is a scenario that shows a possible path for the global energy sector to achieve net zero GHG emissions by 2050 and limit temperature rise to 1.5°C above pre-industrial levels.

* Important input parameters and prerequisites for the climate-related scenarios we used include the following types of parameters.

Parameters Related to the Power Generation Business in the US	2040	
	4°C Scenario	<2°C Scenario
Carbon price/ emissions trading	● N/A	● \$140/ton
Fossil fuel price	<ul style="list-style-type: none"> ● Coal: \$108/ton ● Gas: \$7.5/MMBTU 	<ul style="list-style-type: none"> ● Coal: \$77/ton ● Gas: \$5.9/MMBTU
Renewable energy prices	<ul style="list-style-type: none"> ● Solar utility scale: 7.2 to 8.8 yen/kWh ● Land-based wind power: 6.2 to 7.7 yen/kWh 	<ul style="list-style-type: none"> ● Solar utility scale: 6.6 to 7.1 yen/kWh ● Land-based wind power: 6.2 to 7.7 yen/kWh
Energy production volume by source	<ul style="list-style-type: none"> ● Coal thermal: 1,016 TWh ● Gas thermal: 1,480 TWh ● Renewable energy: 1,488 TWh 	<ul style="list-style-type: none"> ● Coal thermal: 153 TWh ● Gas thermal: 959 TWh ● Renewable energy: 2,560 TWh
CCS dissemination rate	● N/A	<ul style="list-style-type: none"> ● Coal thermal w/CCS: 64% ● Gas thermal w/CCS: 18%

Climate Change (Information Disclosure Based on TCFD Recommendations)

Scenario Analysis and Results

For the scenario analysis, we did not limit the timeline range to the short-term. We also added medium- and long-term axes for 2030 and beyond when organizing and evaluating the factors of latent risks and opportunities that could have a significant qualitative or quantitative financial impact for each business. We extracted risk and opportunity factors from the perspective of procurement, business management, and demand, and then organized and evaluated factors of high importance. For particularly important factors, our scenario analysis was based on finance models that reflect defined parameters. We defined these parameters by identifying variables that significantly impact transition and physical risks and opportunities. For the analysis of financial impact level, we measured the latent impact level of climate change and analyzed the financial impact level, including the effect of risk and opportunity measures.

The quantitative information used in our scenario analysis reflects judgments made by ITOCHU based on scenarios prepared by sources such as the IEA. While we worked to increase analysis precision, the analysis does include numerous uncertainties.

1. Businesses for Which Transition Risks Are the Main Issues

The main issues for fossil fuel-related businesses are transition risks in the <2°C scenario. The main issues for Chemicals Business, Iron Ore Business and Automobile Business the 1.5°C scenario.

Business Profile		Power Generation Business	Energy Business
Timeframe		By 2040	
Temperature Band Scenario		<2°C Scenario	
Main risks and opportunities	Transition	<p>Risk : Thermal power generation costs may increase due to the impact of carbon taxes and mandatory capture and storage of carbon dioxide (CCUS).</p> <p>Opportunity : The competitive advantage of renewable energy may increase. This also includes technological progress and cost reduction.</p> <p>Opportunity : It may be necessary to increase investment in storage batteries and grids for a significant shift to renewable energy.</p>	<p>Risk : Countries may introduce regulations (e.g., carbon taxes) toward the realization of a decarbonized society. This may lead global demand for fossil fuels to shrink.</p> <p>Opportunity : Demand for LNG may increase especially in Asia as a transition fuel to realize a decarbonized society and as a fuel to support industrial development.</p> <p>Opportunity : Demand for new energies (e.g., hydrogen, ammonia and renewable fuel) may increase as alternatives to fossil fuels.</p> <p>Opportunity : Business opportunities may increase for carbon dioxide capture, utilization and storage (CCUS) that contributes to a reduction in greenhouse gases.</p>
	Physical	<p>Risk : Power generation facilities may be damaged by natural disasters (abnormal weather).</p>	<p>Risk : Possibility production facilities could be damaged in a natural disaster (abnormal weather).</p>
Business environment under the scenario Business impact assessment		<p>Transition risks will greatly squeeze income with carbon taxes and carbon capture, usage and storage (CCUS) costs. Therefore, the income of thermal power generation may decrease. However, cumulative income is expected to improve due to an increase in renewable energy sales and a decrease in carbon taxes and CCS costs by switching to measures emphasizing renewable energy.</p> <p>Analysis according to the EBITDA indicator (%)*</p>	<p>In the 2°C scenario, a global decrease in demand for fossil fuels is projected but it is possible to maintain earnings by capturing new energy demand for fossil fuel alternatives and environmental business opportunities such as CCUS. Assumes a low possibility that natural disasters (abnormal weather) in relevant regions would further increase in scale. (Evaluated multiple scenarios for energy price fluctuations through 2040)</p> <p>Analysis according to the profit after tax (%)</p>
Adaption/mitigation measures & policies Business opportunities		<ul style="list-style-type: none"> We will aim to achieve a renewable energy ratio of more than 20% (equity interest basis) by FYE 2031. We will reflect this in future efforts. We will not develop any new coal-fired power generation business. Part of the reason we will do this is to contribute to the development of a sustainable society. 	<ul style="list-style-type: none"> We will restructure our energy business portfolio by seizing business opportunities through adding synergies with group companies and participating in initiatives in the new energies field. We will strengthen efforts on CCUS and other environmental businesses toward the realization of a decarbonized society. In relation to upstream oil and gas development, we will carefully examine the impact on the environment whenever we switch our assets. We intend to improve the efficiency in our business model and this will align well with the stakeholders' needs.
Financial information		<ul style="list-style-type: none"> Profit in segment of applicable business (gross profit): 54.7 bn yen (the Plant Project, Marine & Aerospace Division / FYE 2023 results) Total assets in segment of applicable business: 690.6 bn yen (the Plant Project, Marine & Aerospace Division / March 2023 results) 	<ul style="list-style-type: none"> Profit in segment of applicable business (gross profit): 170.2 bn yen (Energy Division / FYE 2023 results) Total assets in segment of applicable business: 816.7 bn yen (Energy Division / March 2023 results)

* Earnings before interest, taxes, depreciation and amortization (This refers to earnings calculated by adding interest expenses and depreciation expenses to earnings before tax.)

Climate Change (Information Disclosure Based on TCFD Recommendations)

Business Profile		Chemicals Business	Automobile Business	Iron Ore Business
Timeframe		By 2030		By 2050
Temperature Band Scenario		1.5°C Scenario		
Main risks and opportunities	Transition	<p>Risk : Introduction and increase of carbon tax</p> <p>Risk : Decrease in demand for virgin plastic due to widespread adoption of recycling</p> <p>Opportunity : Increase in demand for low-carbon / decarbonization-related materials and products</p> <p>Opportunity : Increase in demand for clean fuels and chemical raw materials</p>	<p>Risk : The number of internal combustion engine vehicles we handle may decrease. shrink.</p> <p>Opportunity : The number of electric vehicles we handle may increase.</p> <p>Opportunity : New business may expand with the spread of electric vehicles.</p> <p>Risk : Transportation costs may rise due to the introduction of carbon taxes.</p>	<p>Opportunity : The stable supply of low-carbon emission steelmaking raw materials</p> <p>Risk : Increase in cost of fuels and materials due to the introduction of a carbon tax</p> <p>Opportunity : Creation of a new low-carbon emission steelmaking raw materials business</p>
	Physical	<p>Risk : Damage to facilities / inventories and shutdown of operations caused by typhoons, floods, etc.</p> <p>Opportunity : Increase in demand for chemical materials and products related to production increase, preservation and stockpile of food.</p>	<p>Risk : There is a risk the factories of our business partners may suffer damage and suspend operations.</p>	<p>Risk : Increase in procurement costs due to the increased frequency of severe weather events and worsening water scarcity</p> <p>Risk : Disruption of iron ore supply chain due to frequent weather disasters</p>
Business environment under the scenario Business impact assessment	Chemicals Business	<p>Under the transition scenario, while the introduction and increase in carbon tax will increase costs and lower demand for virgin plastics will result in lower sales and profits, our chemical business will be able to increase earnings by capturing opportunities in environmental businesses such as recycled plastics, bioplastics, clean ammonia and methanol, where demand is expected to increase.</p> <p>Analysis according to the profit after tax (%)</p>	<p>The automobile industry is expected to shift from internal combustion engine vehicles to electric vehicles. Our customers are found all over the world. That means we can expect automobile demand to remain firm despite the expectation there will be a gradual shift in the vehicles we handle from internal combustion engine vehicles to electric vehicles in line with the regulations of each country. It is also expected that the introduction of carbon taxes may lead to an increase in transportation costs in some regions. We will continue to maintain competitiveness by working with our partners to reduce costs. We will aim to obtain further earnings by strengthening our storage battery and other related businesses with the spread of electric vehicles.</p> <p>Analysis according to the Gross trading profit indicator (%)</p>	<p>The introduction of a carbon tax is expected to increase the cost of fuel, materials, and other items. Nevertheless, the impact on earnings will be limited due to strengthened relationships with blue-chip business partners and improvement of operational efficiencies. Further growth is expected by focusing on the production of high-grade ore, for which demand is expected to increase due to the acceleration of the shift to decarbonization, and steadily seizing business opportunities in iron ore and related fields, such as creation of businesses related to low-carbon emission steelmaking raw materials.</p> <p>Analysis according to the profit after tax (%)</p>
	Adaption/mitigation measures & policies Business opportunities	<ul style="list-style-type: none"> Accelerate progress toward a decarbonized society through energy saving measures, procurement of renewable energy, etc. Taking the initiative in realizing resource circulation by providing a 3R platform and sustainable cycle. Restructuring our chemical business portfolio by accelerating our efforts in environment-related businesses, such as sourcing of environmentally friendly raw materials. 	<ul style="list-style-type: none"> We will continue to expand business by ascertaining demand trends by region based on the electric vehicle development and production situation of automobile manufacturers and trends in electric vehicle-related regulations in the countries where we sell our products. We will strengthen relationships with business partners who are reducing greenhouse gases in regards to freight forwarders and marine transportation companies. We will develop and expand business by linking up with partners who are mainly automobile manufacturers to expand our electric vehicle-related business. 	<ul style="list-style-type: none"> We will closely monitor trends in low-carbon emission steelmaking technologies and promote initiatives to ensure a stable supply of low-carbon emission steelmaking raw materials. Promote initiatives to reduce GHG emissions by strengthening relationships with business partners..
Financial information	<ul style="list-style-type: none"> Profit in segment of applicable business (Profit After Tax): 129.2 bn yen (Chemical Division/FYE 2023 results) Asset in segment of applicable business: 628.7 bn yen (Chemical Division / March 2023) 	<ul style="list-style-type: none"> Profit in segment of applicable business (gross profit): 180.1 bn yen (the Automobile, Construction Machinery & Industrial Machinery Division. / FYE 2023 results) Asset in segment of applicable business: 974.1 bn yen (the Automobile, Construction Machinery & Industrial Machinery Division. / March 2023) 	<ul style="list-style-type: none"> Profit in segment of applicable business (gross profit): 222.0 bn yen (Metals & Minerals Company / FYE 2023 results) Asset in segment of applicable business: 1,274.8 bn yen (Metals & Minerals Company / March 2023) 	

* Earnings before interest, taxes, depreciation and amortization (This refers to earnings calculated by adding interest expenses and depreciation expenses to earnings before tax.)

Climate Change (Information Disclosure Based on TCFD Recommendations)

Initiatives in Coal-related Business

The business environment and response measures under the 2°C scenario for the coal-related business is as follows.

Business environment under the scenario	Under the 2°C scenario, business could be impacted by technological innovation, regulatory trends, and global energy demand but, overall, thermal coal usage volume will decrease over the medium- and long-term.
Measures and policies	<ul style="list-style-type: none"> • In February 2019, we adopted a policy outlining not developing new coal thermal power plants or acquiring thermal coal mine businesses. • Decided on the withdrawal from thermal coal mine interests to reflect commitment to leading the industry in realizing a decarbonized society. This is in line with the basic policies in the Medium-term Management Plan from FYE 2022: enhancing our contribution to and engagement with the SDGs through business activities. In April 2021, we sold our Drummond interests in Colombia, completing our withdrawal from interests in coal mines that only produce thermal coal. In March 2022, we also sold our interests in Ravensworth North in Australia, which produced both coking coal and thermal coal. • We will strongly promote efforts toward technological development and social implementation to contribute to a reduction in greenhouse gas emissions. This includes carbon capture and storage (CCS) and carbon capture and utilization (CCU). On the other hand, there will continue to be a need for thermal power generation as regulated power supplies and backup power supplies for the time being for the large-scale spread of renewable energy. Therefore, we will continue to fulfill our duty to stably supply resources through thermal coal trading.
Financial information	<ul style="list-style-type: none"> • Profit in segment of applicable business (gross profit): 222.0 bn yen (Metals Company / FYE 2023 results) • Total assets in segment of applicable business: 1,274.8 bn yen (Metals Company / March 2023 results)

Climate Change (Information Disclosure Based on TCFD Recommendations)

2. Businesses for Which Physical Risks Are the Main Issues

The main issues for agriculture- and forestry-related businesses are physical risks in the 4°C scenario.

Business Profile		Dole Business	Pulp Business	Feed and Grain Trade Business
Timeframe		By 2030		
Temperature Band Scenario		4°C Scenario		
Main risks and opportunities	Transition	<p>Opportunity : An expansion in the introduction of recycled clean energies (biogas power generation and biomass boilers) utilizing our own organic resources (including pineapple, banana and other food residues, and waste factory liquids) and renewable energies (e.g., solar power generation) may help to lower carbon levels and protect water resources.</p>	<p>Opportunity : If a carbon tax is introduced in Finland, we will have a competitive advantage. That is because we already use 100% biomass energy in pulp manufacturing.</p>	<p>Opportunity : We may capture demand with feed products and other low-carbon-related products which contribute to reducing greenhouse gases.</p>
	Physical	<p>Risk : There may be a reduction in yields due to abnormal weather (e.g., typhoons and droughts) in banana and pineapple plantations in the Philippines.</p>	<p>Risk : The suitable areas for growing trees change for each species with a rise in temperature. In addition, the amount produced decreases depending on the type of tree and region (pine trees in Finland and spruce trees in the south of the country).</p> <p>Risk : Heavy machinery farming in the winter in Finland is premised on frozen soil. However, the soil may soften due to the rise in temperature and harvesting costs may increase.</p>	<p>Risk : Decrease in the amount of crops harvested and logistics disruption due to large hurricanes, droughts and other abnormal weather in countries from where we import crops.</p> <p>Risk : The amount of crops harvested may decrease and transaction prices may increase in countries from where we import crops due to rising temperatures.</p> <p>Opportunity : We may maintain a supply structure by diversifying the countries from where we import crops and capture demand for grain.</p>
Business environment under the scenario Business impact assessment		<p>The decrease in crop harvests attributable to climate change can be supplemented by increasing per-unit crop harvest volume. This can be accomplished by selecting breeds that are viable in high-temperature climates and through improvements to production methods, including cultivation and irrigation methods. We also started pineapple production in West Africa (Sierra Leone, etc.) as part of production site diversification to prepare for weather risks. The above initiatives will make it possible to increase earnings.</p> <p>Analysis according to the EBITDA indicator (%)*</p>	<p>The amount produced is expected to decrease in some areas due to the rise in the global average temperature. Nevertheless, we can continue to improve earnings by increasing the amount of pulp we produce with the augmentation of facilities in afforestation regions where the amount produced is expected to increase and by curtailing the rise in harvesting costs with measures against soil softening.</p> <p>Analysis according to the EBITDA indicator (%)*</p>	<p>The decrease in the amount of crops harvested due to weather disasters and rising temperatures may lead to supply instability and increases in prices. However, we can maintain a supply structure by diversifying the countries from where we import crops and then provide further opportunities for low-carbon-related products.</p> <p>Analysis according to the Gross trading profit indicator (%)</p>
Adaption/mitigation measures & policies Business opportunities		<ul style="list-style-type: none"> • We will diversify producing areas in preparation for weather risks (e.g., Sierra Leone in West Africa). • We will increase per-unit harvest by improving production methods, including selecting breeds that are viable in high-temperature climates, improving seedling cultivation, and installing irrigation equipment. • We will use drones and ICT (agricultural chemical spraying location identification, yield prediction and timely and accurate fertilization) to increase the efficiency of production. • We will capture the support of environmentally-conscious consumers and increase our brand value by expanding our adoption of recycling-based clean energy and renewable energy such as solar power to contribute to low carbon and water resource protection. 	<ul style="list-style-type: none"> • The impact on the amount produced will vary between the north and south in Finland. Therefore, we will enhance monitoring of yield changes and examine a flexible production structure including the construction of a new factory. • We will give training on the use of special heavy machinery for soft soil and examine even more efficient methods for harvesting in Finland. 	<ul style="list-style-type: none"> • We will diversify the countries from where we import crops to prepare for the acute and chronic impacts from climate change. • We will engage in new environmental-related business such as feed which leads to a curb on methane emissions.
Financial information		<ul style="list-style-type: none"> • Dole International Holdings net profit: ▲36.4 bn yen FYE 2023 results) • Total assets in segment of applicable business: 2,146.8 bn yen (Food Company / March 2023 results) 	<ul style="list-style-type: none"> • Profit in segment of applicable business (gross profit): 168.7 bn yen (Forest Products & General Merchandise/Logistics Division / FYE 2023 results) • Total assets in segment of applicable business: 752.3 bn yen (Forest Products & General Merchandise/Logistics Division / March 2023 results) 	<ul style="list-style-type: none"> • Profit in segment of applicable business (gross profit): 330.9 bn yen (Food Company / FYE 2023 results) • Total assets in segment of applicable business: 2,146.8 bn yen (Food Company / March 2023)

* Earnings before interest, taxes, depreciation and amortization (This refers to earnings calculated by adding interest expenses and depreciation expenses to earnings before tax.)

Climate Change (Information Disclosure Based on TCFD Recommendations)

Impact on Existing Strategies and Business Transition Plans

During our scenario analysis, we ascertained high-impact negative financial risks associated with not implementing climate change measures such as shifting current business strategy or business regions. As a result, we have already begun incorporating specific business transition plans and financial plans (including divestment and portfolio restructuring) into our Medium-term Management Plan, Brand-new Deal 2023 based on the basic policy of leading the industry in realizing a decarbonized society in enhancing our contribution to and engagement with the SDGs through business activities.

Transition Plans for Main Businesses Subject to Transition Risks

- In the power generation business, increase project development towards the goal of increasing our rate of renewable energy (equity interest basis) to over 20% by FYE 2031.
- Selling our Drummond interests, in line with our policy of withdrawal from thermal coal interests. (We will also aim to sell off other thermal coal interests by the end of FYE 2024.)
- Build a next-generation fuel value chain based on hydrogen and ammonia.
- Create distributed power supply platform using AI storage batteries boasting the No. 1 sales in Japan. (Aim for scope exceeding cumulative power storage of 5 GWh by FYE 2031.)

Transition Plans for Main Businesses Subject to Physical Risks

- Increase per-unit harvest volume by selecting breeds that are viable in high-temperature climates and improvements to production methods.
- Expand business into other regions projected to see growth in production volume.

The Division Company Management Committee (DMC) conducts annual reviews of business risks and opportunities, including those related to climate change. Each DMC determines the order of priority for each policy and business, including business transition plans, and then drafts annual plans. The annual financial plans for each company are presented for approval to the HMC, the executive body, and the Board of Directors, the supervisory body, before final approval by the Board of Directors. This final approval is subject to a comprehensive analysis and deliberations from an ESG perspective, including matters related to climate change.

In March 2021, ITOCHU also issued SDGs Bond (Sustainability bond totaling US \$500 million) as part of our financial strategy to enhance our contribution to and engagement with the SDGs through business activities. A portion of these SDGs Bonds were allocated towards R&D-related investments in climate-related subjects like those indicated below. The issuance of SDGs Bonds will increase recognition of ITOCHU Group policies to a broader range of stakeholders and further promote initiatives related to the SDGs.

- GHG emissions reduction initiatives: Renewable energy (power generation, power storage)
- Initiatives to promote GHG emission reduction measures at FamilyMart.

We confirmed that implementing these types of transition plans will enable us to maintain resilient business operations, even in over the medium- and long-term, for Group businesses, products, and services. Beyond the scope of applicability to this scenario analysis, ITOCHU is engaged in diverse business activities in various regions. Those business activities are also impacted by climate change. However, at this point in time, we have determined that the impact on Group overall earnings caused by risks associated with each individual business activity would be limited.

To confirm the impact of climate change on overall Group business, we will continue to conduct analyses of both transition and physical risks. We will further identify and organize fields susceptible to significant impact and evaluate response policies based on an order of priority given to areas requiring a response.

Climate Change (Information Disclosure Based on TCFD Recommendations)

Risk Management

As a Group engaged in global business operations, ITOCHU constantly monitors climate change policies in each country, the status of abnormal weather around the world, and the business risks associated with changes in average temperatures. In the analysis of risks for our entire Group, we manage climate change risks identified based on an analysis of information concerning climate change measures, including regulatory information and abnormal weather information, as one of the major risks (environmental and social risks) facing our company. Identified climate change risks are also examined and evaluated during our investment decision process. Each department in charge of risk management has established an organization for risk identification, evaluation, information management, and monitoring for the consolidated group.

Identification and Evaluation of Climate Change Risks

TOCHU recognizes risk management as an important management issue. Referencing the COSO-ERM framework, we outline our basic policy on risk management for ITOCHU and prepare the organizations and methods necessary for risk management. Each company and the Sustainability Management Division cooperate regularly to gather information to assess risk importance. This information includes trends in climate change policy and regulations, which mainly consists of existing and new regulations related to climate change in the countries in which we operate, climate change-related technology, and clean-tech business. We also gather information on global abnormal weather and average temperature increases. Importance is identified and assessed using specific indicators and from the perspective of ascertaining the substantive financial or strategic impact that climate risk may have on the Company. For example, for non-consolidated businesses, we identify an important risk as a risk that would cause a 10% change compared to net sales from the previous year, a 20% change in average net income for the most recent past five years, or a 30% change in net assets from the end of the previous year. For consolidated businesses, we would use a change of 10% from previous fiscal year earnings or a 3% change in total capital from the end of the previous year.

ITOCHU organizes the information we gather on climate change risks and opportunities into the material climate change-related risks and opportunities (risk criteria), with analysis for both transition and physical risks. We use risk criteria to identify and assess climate change risks in the risk management process for each phase of business, including the start of a new business, existing businesses, handled products, supply chains, Group company business management, and business strategy reviews.

Climate change risks gathered during the risk assessment process are deliberated by the Sustainability Committee and other relevant committees to ensure we continuously review risk criteria and the risk identification process. During these deliberations, the relevant committees incorporate opinions received from the Sustainability Advisory Board, which promotes dialogue concerning sustainability between ITOCHU management and external stakeholders.

Integrating Climate Risk Management into the ITOCHU Group Risk Management System

Due to the nature of our broad-based operations, ITOCHU is subject to various risks, including market risks, credit risks, and investment risks. In addition to establishing various internal committees and designated responsible departments, we have created a risk management organizational structure and management methods necessary to address these risks. This organizational structure includes outlining management regulations, investment standards, risk limits, and transaction limits, as well as establishing structures for reporting and monitoring to enable integrated Group risk management.

Climate change risks are one (environmental and social risks) of the major risks subject to Group risk management. We incorporate this risk management into the assessment methods for each business phase shown in the table below (business, product, Group companies, supply chain, strategy, and portfolio).

Evaluation Methods for Each Business Phase

Business Phase	Evaluation Method
Business start	Environmental risk assessments for new investment project (approx. 80 per year)
Business management	<ul style="list-style-type: none"> • Environmental risk assessments for handled products (overall supply chain evaluation) • Group company environmental status survey (2, 3 companies per year) • Supply chain sustainability surveys (ITOCHU and consolidated subsidiaries) • Internal environmental audits based on ISO14001 (ITOCHU Corporation, 3 applicable Group companies) (once per year)
Review business strategy	Consider business strategy, portfolio restructuring

If risks and opportunities are identified via the evaluation methods at each business phase, we use the tool shown below in Risk Assessment & Management Activities to assess the impact of risks and opportunities on business. Risk Assessment & Management Activities include quantitative evaluations such as scenario analyses and stress tests, and qualitative evaluations such as assessments of compliance with investment policy and GHG reduction targets. Quantitative information for risks and opportunities not related to climate change is added to climate change risk and opportunity information that has been quantitatively assessed. This information is then used to analyze the level of contributions to earnings.

Climate Change (Information Disclosure Based on TCFD Recommendations)

Risk Assessment & Management Activities

Managed Factor	Risk and Opportunity Factors (example)	Evaluation & Management Activities (example)
Market	<ul style="list-style-type: none"> Decreased demand due to adoption of a carbon tax on energy (crude oil, gas, LNG) development projects Increased LNG demand and increased demand for renewables and other new energy 	<ul style="list-style-type: none"> Scenario analysis Policy on climate change in relation to investment decisions Conformity to ITOCHU GHG emission reduction targets Compliance with policy on investment and growth in new energy solutions Earnings contributions
Regulations	<ul style="list-style-type: none"> Carbon tax on international transactions for energy and fuel Adopt volume reduction requirements and emissions trading scheme (cap and trade scheme) in country of operation Increased thermal power generation costs at power plants due to carbon tax and CCUS requirements 	<ul style="list-style-type: none"> Scenario analysis Portfolio stress test Regulatory monitoring Carbon prices Conformity to ITOCHU GHG emission reduction targets
Technology	<ul style="list-style-type: none"> Mobility electrification Renewable energy and storage battery/lithium battery technology CCUS, hydrogen/ammonia and other low carbon technologies Digitized big data 	<ul style="list-style-type: none"> Monitoring technological trends related to risk factors Increased investment in new energy solutions, CCUS, and new low-carbon technologies Digitization roadmap
Physical risks	<ul style="list-style-type: none"> Chronic effects (e.g., sea level rise, water scarcity increase) Acute effects (e.g., more frequent extreme weather events) 	<ul style="list-style-type: none"> Regular updates to meteorological and oceanographic data for new business development / existing business risk assessments Updates to physical impact data on food products
Reputation	<ul style="list-style-type: none"> Maintaining company appeal in terms of personnel hiring Investor awareness of climate change countermeasures Climate-related lawsuits Impact on acquiring licenses needed for business 	<ul style="list-style-type: none"> Governance for climate change issues Ensuring transparency of performance disclosure Communication with stakeholders (investors, initiatives, NGOs, business affiliates)

• Our risk management, including climate change, related to Company operations (P190)

Climate Change Risk Management Organization

Business Start Phase

ITOCHU has established a multilayered decision-making process that seeks to realize swift decision-making by delegating discretionary power to each internal company, while pursuing investment returns and controlling investment risks. Depending on the size and terms of a project, a review is conducted at the internal company level or by the Investment Consultative Committee and the HMC (Headquarters Management Committee). In all cases, ESG risk assessments, including climate change risk, are incorporated into considerations when making investment decisions in the business investment process, which includes climate change risks. Using a tool called ESG Checklist for investments, we conduct shadow pricing for the purposes of risk analysis of GHG emission-intensive projects, promotion of low-carbon investments, identification and expansion of low-carbon business opportunities, stress testing, etc, which is one of internal carbon pricing methodologies. As a member of the HMC and the Investment Consultative Committee, the CAO, who chairs the Sustainability Committee, participates in the screening of projects that exceed the authority of the division company president. This system reflects the content of deliberations at the specific stage of climate change risk and at the assessment stage of climate change risk for company-wide risk management.

• Our business investment management (P192)

Business Management Phase

ITOCHU evaluates and manages risks such as climate change, natural disasters, and ESG investment identified in the business start stage and the business management stage through collaboration between responsible committees such as the Sustainability Committee and Internal Control Committee and the departments in charge. Environmental and social risks, including climate change, are summarized as one of the major risks subject to centralized management. Each year, the Sustainability Management Division serves as the executive unit in charge of organizing this information and issuing reports to the Internal Control Committee along with information on the other major risks to integrate the risk information into company-wide risk management system. The Sustainability Committee also deliberates on policies and measures related to climate change risk and how to promote the risk management system, etc. The director serving as chair of the Sustainability Committee reports on the content of deliberations to the Board of Directors approximately twice per year.

Review Business Strategy

Reviews of business strategy related to climate change are conducted by the Division Company Management Committee (DMC), and then by the HMC via the Investment Consultative Committee on which the CAO, who serves as the chair of the Sustainability Committee, also participates as a key member. Final decisions are made following deliberation by the Board of Directors. Scenario analysis based on TCFD recommendations is also used as a tool when considering business strategies and portfolio restructuring. In our analysis, we analyze short-term, medium-term, and long-term climate-related risks and opportunities once a year for their impact on organization business, strategy, and financial planning.

Climate Change (Information Disclosure Based on TCFD Recommendations)

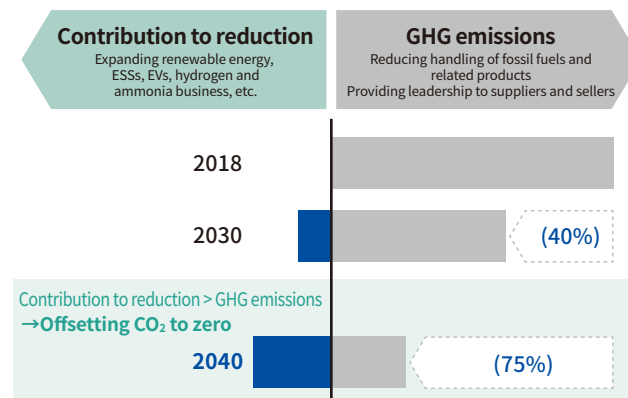
Metrics and Targets and Action Plan

ITOCHU has set the following targets for GHG emissions, electricity usage, and clean-tech business as part of our response to climate change risks and opportunities. When setting these metrics and targets, we reference Japan NDC and IEA materials, which are highly recognized internationally and can cover a wide range of business areas.

GHG Emissions Reduction Targets

- Metrics (aggregation range): Scope 1/2/3 (consolidated subsidiaries), fossil fuel business and interests (consolidated subsidiaries, equity, general investments)
- Targets:
 - Achieve net zero GHG emissions by 2050.
 - Achieve 75% reduction from 2018 levels by 2040, aim for “offset zero”** through aggressive promotion of businesses that contribute to GHG emission reductions.
 * Offset zero: When reduction contributions exceed company GHG emissions
 - Achieve 40% reduction from 2018 levels by 2030.

• Trends in our GHG emissions (P95)



Electricity Consumption Reduction Targets

	FYE 2023 Results	Single Year Target	Target for the Year Ended March 2023
Electricity Consumption of Japanese Bases of ITOCHU Corporation	Reduction of 9.2% compared with FYE 2022 levels	Reduction of at least 1% annually	Reduction of 30% compared with FYE 2011 levels
	Reduction of 51.8% compared with FYE 2011 levels		

Climate Change (Information Disclosure Based on TCFD Recommendations)

Clean-tech Business Metrics and Targets (Action Plans)





We set the following metrics and targets (Action Plans) in ITOCHU Clean-tech Business as one of the main metrics (benchmarks) for climate-related risks and opportunities.

• Our clean-tech business (P81)

Action Plan

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Machinery Company								
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Taking countermeasures against climate change	Overall power generation business	We will develop power plants with a good balance between renewable energy power generation and conventional power generation, thereby contributing to the development of countries and regions in a sustainable manner that is optimized for each.	Pursue opportunities to invest aggressively in renewable energy power generation through analyses of countries and regions.	FYE 2031: Target to achieve a renewable energy ratio more than 20% (equity interest basis) and reflect this to the future strategy.	<ul style="list-style-type: none"> We continue to operate wind power projects. (Butendiek and Cotton Plains). We invested in wind farms consisting of Kimball Power Plant (Nebraska, U.S.) and South Fork Power Plant (Minnesota, U.S.) in March 2020. We acquired all equity interests in Bay4 Energy Services, LLC in December 2020. Bay4 Energy Services, LLC operates, maintains and provides asset management services for to approximately 1,500 solar power plants with a total capacity of 2.3 GW in the U.S. We established Tyr Energy Development Renewables, LLC ("TED") to accelerate the development of renewable energy in the U.S. TED is currently developing approximately 2 million kW of renewable energy assets, primarily solar power plants. Negotiations are also underway to conclude a long-term renewable energy power purchase agreement (PPA). In December 2022, we signed an agreement to invest in the Prairie Switch wind farm (Texas, USA). The project is currently under construction and is expected to be completed by the end of 2023. The renewable energy ratio based on the generation project equity capacity is 16.1% (as of March 2023).
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Taking countermeasures against climate change	Zero emission vessels	We will contribute to decarbonization in the shipping and maritime sectors through the promotion of an "integrated project" encompassing the development, ownership and operation of ammonia-fueled ships, the development of fuel supply chains, and fuel procurement.	In addition to the joint development of ammonia-fueled vessels with the Japanese consortium and the ownership and operation of these vessels, ITOCHU will take the lead in the development of supply chain of an ammonia bunkering and fuel procurement, aiming for early materialization of the pilot project.	<ul style="list-style-type: none"> Establish a value chain centered on ammonia as an alternative marine fuel by promoting the development, ownership, and operation of ammonia-fueled vessels, the development of fuel supply chains, and the procurement of ammonia fuel in an integrated manner. After 2026, promote the spread of ammonia-fueled vessels and the establishment of a supply chains to contribute to the decarbonization of the maritime industry. 	<ul style="list-style-type: none"> Aiming to contribute to the decarbonization of international shipping and build a new business, we are promoting an "integrated project" for ammonia-fueled vessels. The project is developing (1) development of ammonia-fueled vessels, (2) ownership and operation, (3) development of fuel supply chains, and (4) procurement of fuel ammonia in a comprehensive and concurrent manner. In April 2022, we concluded a memorandum of understanding with the Maritime and Port Authority of Singapore to promote the development of ammonia bunkering facilities in Singapore, together with partner companies that are developing bunkering facilities in the country. ITOCHU and partners are promoting the establishment of a safe fuel supply system and the development of ammonia bunkering vessels. In November 2022, together with partner companies jointly selected for the Green Innovation Fund project, we obtained Approval in Principle from Nippon Kaiji Kyokai for the basic design of a large ammonia-fired bulk carrier. The development of ammonia-fired large bulk carriers is underway with safety in mind. As part of the project, ITOCHU is facilitating "Joint Study" as a framework for organizing and discussing common issues related to the introduction of ammonia as an alternative marine fuel, with 34 domestic and foreign companies and organizations, including major resource companies, energy companies, steel manufacturers, shipping companies, and shipbuilders. In April 2022, the "Joint Study for Ammonia Bunkering Safety" was newly launched as a framework for exchanging opinions on ammonia bunkering safety standards with major port authorities and related industry players, and its activities will be expanded in cooperation with the existing "Joint Study". More than 50 presentations were made by concerned parties and experts.
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Taking countermeasures against climate change	Sales of passenger cars and commercial vehicles	We will achieve the eco-friendly mobility society by strengthening businesses of electric vehicles (EVs), hybrid vehicles (HVs), vehicles with a reduced environmental impact, and those related.	Contribute to spread of eco-friendly vehicles by increasing business of eco-friendly and high-efficiency products, such as EVs, HVs, vehicles with a reduced environmental impact, and related parts.	Expand sales of eco-friendly products in response to the expanded lineup of EVs, HVs, vehicles with a reduced environmental impact, and similar vehicles from automakers as our business partners.	<ul style="list-style-type: none"> We have invested in a ride sharing service company called Via (2019). We have been providing efficient transport system to mainly rural areas. We have been participating in a small electric truck demonstration experiment since January 2019 and in developing features around EVs, and have started to provide various solutions as a partner of ISUZU "EVision", total solution program for ISUZU EVs in Japan market. We aim to reduce environmental load through shifting to EVs and also shifting to renewable energy with EVs. In Sep 2021, "Combination of developing battery-exchangeable EVs and utilizing renewable energy Sector coupling demonstration project" was adopted as the Ministry of the Environment-commissioned project. We aims to commercialize battery-exchangeable EVs and as the owner of this project. In November 2022, the demonstration and operation started with a prototype (Two battery-exchangeable EV trucks, six battery packs, and one battery-exchange station) developed and manufactured under the project. We have invested in 2018 in China called Dishangtie Car Rental, an electric commercial vehicle rental and maintenance service. We have engaged a MOU to study about expanding such EV maintenance rental and leasing to abroad countries.

Climate Change (Information Disclosure Based on TCFD Recommendations)

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Machinery Company								
Address Climate Change (Contribute to a Decarbonized Society)	 	<ul style="list-style-type: none"> Water Resources Pollution Prevention and Resource Recycling 	Improving water and sanitation infrastructures	Water and environmental projects	We will contribute to improve the sanitary conditions, the development of economic activities, and the protection of the global environment through the appropriate treatment and effective use of water and waste.	Expand water and environment projects to promote the appropriate use and treatment of water and the effective utilization of resources, and reduce the burden on the environment.	Expand and diversify the investment portfolio in the water and environment field. (Plan to work on decarbonization project development utilizing JCM etc.)	<p>Water Field</p> <ul style="list-style-type: none"> We have developed a water supply service business in the U.K. and seawater desalination business in Australia and Oman. We aim to continue contributing to stable water supply in regions through seawater desalination, and water supply/ and sewerage businesses. At the same time, we are looking to be involved in solutions-based business for water issues in each industrial sector across a range of industries. <p>Environmental Field</p> <ul style="list-style-type: none"> We operate four municipal solid waste incineration and power generation plants(waste to energy plant) in the U.K, which treat 1.3 million tons of waste annually, accounting for 15% of the UK's waste incineration market, and generate enough electricity to power 160,000 British households. In November 2020, we acquired a 20% stake in Environment Development Company Ltd. (current SSES), which provides integrated hazardous waste management services in Jubail Industrial City in Saudi Arabia. In August 2021, we started to provide the government of Serbia with partial service of energy-from-waste project. Appropriate treatment of municipal solid waste in City of Belgrade and reduction of environmental pollution and greenhouse gas emissions has begun without environmental loads. Recycling of construction waste has also begun. We are currently constructing a municipal solid waste incineration and power generation plant(waste to energy plant). 7 SDGs certified, with an expected reduction of approximately 210,000 tons of greenhouse gas emissions, and, in 2022, the project obtained Certification of Carbon Credit by Gold Standard. In December 2020, we entered a concession agreement for the development and operation of an Energy-from-Waste (EFW) plant with Dubai Municipality. This is the first EFW project in Dubai and will be one of the largest EFW plants in the world, processing half of municipal solid waste from the emirate per year (1.9 million tons), which is currently under construction. We are aiming to enhance the functions of our initiatives that to capture strong demand for waste management services in light of intensifying environmental regulations in each the industrial sector and the growing awareness of ESG and SDGs more generally in the same way as in the water field.
Metals & Minerals Company								
Address Climate Change (Contribute to a Decarbonized Society)	 	<ul style="list-style-type: none"> Climate Change Opportunities Capital Introduction 	Taking countermeasures against climate change	<ul style="list-style-type: none"> Resource recycling business Mining business Environmental business Materials-related business 	<ul style="list-style-type: none"> We will realize stable resource supply as our social mission and responsibility while fully considering its environmental impact. We will contribute to climate change issues through businesses that help to reduce greenhouse gases (e.g., lighter-weight vehicles and electric vehicles (EVs)) and the stable supply of essential materials. 	<ul style="list-style-type: none"> Take the lead in developing recycling-orientated business. Promote initiatives for the social implementation of hydrogen and ammonia as next-generation resources and raw materials in client industries (e.g. steel and power). Promote businesses to contribute to the stable supply of nickel, PGM and other materials necessary in the manufacture and supply of hydrogen, green materials and energy, and storage batteries. Continue to be involved in the development of technologies that contribute to the reduction of greenhouse gas emissions, including technologies for carbon dioxide capture and storage (CCS) and carbon dioxide capture and utilization (CCU). Promote initiatives to completely withdraw from thermal coal mine interests while continuing to realize stable resource supply as our social mission and responsibility through trading in regards to our coal business. Implementation and expansion of businesses that contribute to developing lighter-weight vehicles and shifting to EVs (e.g., aluminum and copper). 	<ul style="list-style-type: none"> Promote recycling-orientated business. Promote initiatives for the social implementation of hydrogen and ammonia as next-generation resources and raw materials in client industries (e.g., steel and power). Promote examination toward technological development and commercialization to contribute to a reduction in greenhouse gas emissions, including hydrogen, green material and energy production, and carbon dioxide capture and storage (CCS) and carbon dioxide capture and utilization (CCU). Strive to withdraw from thermal coal mine interests. Realize initiatives in businesses that contribute to developing lighter-weight vehicles and shifting to EVs (e.g., aluminum and copper). 	<ul style="list-style-type: none"> We are contributing to the effective utilization of limited resources and the supply of environmental materials by promoting 3R+W (reduce / reuse / recycle + waste management) through our supply chains toward the realization of a sustainable society. Specifically, we are steadily promoting initiatives in venous industries. This includes the reuse and recycling of store facilities and fixtures, the expansion and increase in sophistication of metal scrap and waste treatment, and strengthening of cooperation with the REVER HOLDINGS CORPORATION (current TRE HOLDINGS CORPORATION) general recycling company we invested into last year. We agreed with Nel ASA (Norway), who is the world's largest manufacturer of electrolysers that are essential for green hydrogen production, to create a strategic partnership in the hydrogen industry. We and Nel are jointly exploring hydrogen business opportunities. We are promoting to realize the Platreef project and others in the PGM/nickel business where demand is expected to grow significantly due to the worldwide spread of electric vehicles and fuel cell vehicles, and also expanding trade activities of such materials. We continue to conduct a commercialization survey of a by-product hydrogen project in northern Kyushu with partners for the social implementation of hydrogen. We have an investment into Australia-based MCI, who possesses mineral carbonation technologies. We are promoting this technology for the Japanese market. In July 2022, we signed an MOU with TAISEI CORPORATION to begin verification of the use of this calcium carbonate as raw materials for concrete. We are promoting the examination of other carbon dioxide capture, utilization and storage (CCUS) technologies and various initiatives that will lead to a reduction in CO2 emissions. As per the Medium-Term Management Plan, we decided to withdraw from thermal coal mine interests with a perspective of strengthening contribution and initiatives to SDGs. We already divested our Drummond mine interests in Colombia that had accounted for the majority of the ITOCHU's thermal coal interests and also divested Ravensworth North coal mine interests in Australia producing both thermal and coking coal. We are currently promoting business in North America with Nikkeikin Aluminum Core Technology Company, Ltd. which we invested into in FYE 2020 for the manufacturing of aluminum parts for automobiles. It started commercial production in the beginning of 2023. In addition, we will continue to promote aluminum raw material and product trading to contribute to the development of lighter-weight vehicles.

Climate Change (Information Disclosure Based on TCFD Recommendations)

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Energy & Chemicals Company								
Address Climate Change (Contribute to a Decarbonized Society)		<ul style="list-style-type: none"> Transition Risk Stable Supply of Resources 	Stably supplying energy taking into account climate change and the environment	Oil/gas interests and liquefied natural gas (LNG) projects	We will produce resources (transition fuels) taking into account a reduction in greenhouse gases. We will provide a stable supply of energy to contribute to the development of industry and the construction of infrastructure.	Work on resource development projects in collaboration with superior partners who have advanced technical capabilities and abundant experience.	Pursue opportunities to participate in gas projects with a relatively low environmental burden in fossil fuels and as raw material source of the low-carbon fuel while keeping in mind the stable supply of energy in the transition phase toward the realization of a sustainable society.	To realize a sustainable society through the stable supply of energy, we continue to discuss with competent partners ways to participate in new upstream projects and collaborate on decarbonization as a transition fuel and raw material source of low carbon.
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Energy use that takes into consideration local communities and the environment	District heating and cooling	We will promote initiatives toward environmentally friendly regional energy use.	Communicate appropriately with neighboring stakeholders in the Jingu Gaien district.	Maintain the stable operations of district heating and cooling in the Jingu Gaien district and promote the spread of it to neighboring areas.	We are continuing discussions with the relevant stakeholders to spread and promote district heating and cooling to neighboring areas.
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Efforts to optimally and continuously supply renewable energy	<ul style="list-style-type: none"> Energy Storage System Power & Environmental Solution 	<ul style="list-style-type: none"> We will continue to stably supply the Energy Storage System that are the key to the efficient and optimal utilization of renewable energy. We will aim to strengthen our Energy Storage System business chain and establish a circular model through the battery recycling business in particular. 	We will continue to sell Energy Storage System equipped with optimal charging/discharging software based on machine learning (AI) and we will establish a recycling and reuse business with repurposed batteries from EV.	<ul style="list-style-type: none"> Number of storage batteries sold. Use of recycled and reused batteries. 	<ul style="list-style-type: none"> We have sold a cumulative total of approximately 55,000 units (539 MWh) of energy storage systems as of the end of March, 2023. ITOCHU signed a Capital and Business Alliance with Lunar Energy, a newly launched clean tech company in the U.S. ITOCHU will continue to promote the installation and sales of Gridshare in the "Smart Star" series of residential ESS in the Japanese market and to promote Gridshare as the best global platform for controlling distributed energy resources and will contribute to realize distributed energy in a decarbonized society. ITOCHU conducts Demand Response POC with Japanese power companies, by using its residential ESS networks. Executed an investment in Power X, which aims to build one of the largest battery solution manufacturing factory in Japan. We aiming to promote fast EV charge stations through this investment. ITOCHU signed a Strategic Partnership MOU with ZF, for the joint feasibility study of comprehensive decarbonization service by utilization of EV on-board battery. A recycling demonstration is underway using waste batteries from household battery storage system with the aim of establishing a recycling chain and traceability.
<ul style="list-style-type: none"> Address Climate Change (Contribute to a Decarbonized Society) Ensure Stable Procurement and Supply 		<ul style="list-style-type: none"> Stable Supply of Resources Capital Introduction 	Working on new fuel initiatives toward the realization of a carbon-neutral society / recycling-orientated low-carbon society	Production and supply of hydrogen and fuel ammonia, and procurement and supply of renewable fuels	We will aim to build a production and supply structure for new fuels to contribute to the reduction of greenhouse gases on a life cycle assessment basis toward the realization of a sustainable society.	Work on hydrogen and ammonia which are expected to serve as next-generation energies and fuels that do not emit carbon dioxide when burned. Also work on renewable fuels (derived from waste oils) to contribute to the reduction of greenhouses gases emitted from aircraft and large vehicles that are difficult to convert from internal combustion engines.	Build a new fuel value chain to be able to realize production, efficient transportation and supply by utilizing collaboration with superior partners and our track record in development and trading.	<p>Hydrogen and Ammonia</p> <ul style="list-style-type: none"> Continuing to collaborate with ITOCHU ENEX Co., Ltd. and Air Liquide Japan G.K. on hydrogen refueling stations (HRS), following the successful development of Japan's first HRS for large commercial vehicles at Motomiya Interchange, Fukushima Prefecture, which is scheduled to begin operating in the first half of 2024. Conducting detailed studies on a joint project to manufacture and sell blue ammonia in Canada with Petrolim Nasional Berhad, Malaysia's national oil company, and Inter Pipeline Ltd., a major regional infrastructure enterprise. <p>Renewable Diesel (RD) and Sustainable Aviation Fuel (SAF)</p> <ul style="list-style-type: none"> Procuring RD produced by Neste OYJ for use in convenience store delivery vehicles, tank trucks, and fueling stations with ITOCHU ENEX Co., Ltd. Supplying SAF: (i) produced by Raven SR, Inc. to All Nippon Airways Co., Ltd. and Japan Airlines Co., Ltd.; and (ii) produced by Neste OYJ to Etihad Airways PJSC from October 2022. Selected by the Civil Aviation Bureau (Ministry of Land, Infrastructure, Transport and Tourism) to carry out the "Imported Neat SAF Model Demonstration Project" to import neat SAF from Neste OYJ, blend it with fossil-based jet fuel in Japan, and establish a supply chain to transport it to airports. Invested in Impact Bioenergy, a U.S. based startup that manufactures and sells equipment to produce biogas from food waste through anaerobic digestion.

Climate Change (Information Disclosure Based on TCFD Recommendations)

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Energy & Chemicals Company								
Address Climate Change (Contribute to a Decarbonized Society)		Capital Introduction	Working on initiatives in carbon dioxide capture and storage (CCS) business toward the realization of a carbon-neutral society and inclusive and sustainable economic growth	Building of CO ₂ capture chains using CCS	We will aim to build CO ₂ capture chains to contribute to the reduction of greenhouse gases toward the realization of a sustainable society.	Refine CO ₂ storage technologies - an application of petroleum development technologies - and enhance access to CO ₂ capture chains (e.g., collection and transportation) to link them to CO ₂ storage technologies.	Build a CO ₂ transportation and storage business model by uncovering CO ₂ capture needs at places where CO ₂ is emitted in client industries across our companies.	Together with ITOCHU Oil Exploration Co., Ltd., we joined the Geological Carbon Dioxide Storage Technology Research Association to participate in a project to research and develop technologies for underground sequestration of carbon dioxide. In connection with the comprehensive CCS strategy formulated by Japan's Ministry of Economy, Trade and Industry, we are studying with our consortium partners the feasibility of a CCS value chain project using ship transportation. We aim to build a business model for the CO ₂ capture chain through these initiatives.
Address Climate Change (Contribute to a Decarbonized Society)		Climate Change Opportunities	Working on initiatives to optimally and continually supply renewable energy	Renewable energy independent power producers (IPPs) / renewable energy-related materials procurement / dispersed power source initiatives	<ul style="list-style-type: none"> We will realize a stable supply of renewable energies through the development, ownership and operation of renewable energy power plants (solar power, biomass and wind power). We will stimulate renewable energy power generation inside and outside of Japan through renewable energy-related materials procurement. We will realize a world where renewable energy is commonplace by spreading solar power generation as an independent power source that does not rely on the power grid through the deployment of solar power dispersed power sources. 	Expand the scale of our renewable energy assets with the stable operation and new development of renewable energy plants and establish dispersed power sources in Japan with a focus on the conversion to virtual power plants (VPP).	<ul style="list-style-type: none"> Scale of our renewable energy assets Scale of our dispersed power sources 	<ul style="list-style-type: none"> We have expanded the third party-owned distributed power supply using renewable energy, by operating approximately 555 on-site photovoltaic power plants (combined output is approx 120,000kW) across Japan through VPP Japan, Inc. We have commenced the provision of corporate PPA for the provision of electric power generated from off-site photovoltaic power plants in Japan to Amazon.com, Inc. through Clean Energy Connect Co., Ltd., our portfolio company. (Feb, 2023)
Food Company								
Address Climate Change (Contribute to a Decarbonized Society)	 	GHG Emissions	Taking countermeasures against climate change	Fresh food field	We will examine and promote measures that contribute to tackling climate change.	We will utilize green energy in our processed food business.	<ul style="list-style-type: none"> New boiler and power plant operating situation. Situation of the utilization of raw materials in boilers and power plants. <ol style="list-style-type: none"> Situation of the utilization of all food residue generated in pineapple processing factories. Situation of the utilization of non-standard products that cannot be sold as food, generated in banana plantations. 	<ul style="list-style-type: none"> 2nd biogas plant (Polomolok plant) was started to be operated on July, 2022. (1st biogas plant (Surallah plant) was activated on Dec, 2021) Result of utilization of processed pineapple residue : 97,566MT in 2022.
General Products & Realty Company								
Address Climate Change (Contribute to a Decarbonized Society)		Capital Introduction	Taking countermeasures against climate change	Cement substitute material such as slag	We plan to expand the use of sustainable byproducts (slag) as a substitute material for the cement which is vital for construction and civil engineering.	Establish continuous, stable business between Steelworks as the supplier of slag and Users.	Consider investment, participation, etc. in the slag business and focus initiatives on creating demand, especially in developing countries, with the aim of establishing continuous, stable business.	We are currently in discussions concerning investment and participation in the slag business.

Reflecting Climate Change Issues in Corporate Officer Remuneration System

To enhance the link between management strategy and executive compensation structure, ITOCHU decided to newly incorporate climate change and ESG/SDGs response into the evaluation of each executive from FYE 2021. Director remuneration is determined according to factors that include degree of contribution to ITOCHU Corporation, including addressing climate change, ESG and SDGs, based on a standard amount for each position.

* Corporate Officer Remuneration System (P174)

Climate Change (Information Disclosure Based on TCFD Recommendations)

Initiatives

Initiatives in Business Tackling Climate Change

Toward Sustainable Plantation Operation in Response to Climate Change

ITOCHU group company Dole has a banana field on Mindanao Island in the Philippines, where typhoons, droughts, pests and diseases have occurred. Banana production volume decreased by 40% to 440,000 tons in FYE 2017. In light of this situation, we conducted the following analysis.

- Climate change risk assessment (short- and medium-term risks) in the Group company environmental status survey (conducted on 2 to 3 companies per year) as a part of global risk management process.
- As information necessary for risk assessment, we ascertained domestic and international trends related to climate change and problem cases caused by climate change. We used ERM to analyze those trends. As a result, we recognized that the concentration of production areas was a serious risk. To recover and expand production while dealing with this risk, we introduced irrigation equipment for bananas, consolidated and expanded agricultural land, and implemented measures against pests and diseases. Since similar risks exist in pineapple cultivation, we also decided to improve productivity by investing in equipment for pineapple farms and reviewing cultivation methods. We also promoted diversification of production areas in preparation for abnormal weather risks. Through the above analysis and countermeasures, we were able to maintain banana and pineapple production by making full use of diversified production areas and cultivation techniques, even when several typhoons occurred near Mindanao Island in 2020.



Banana Field

Withdrawal from Interests in Thermal Coal

ITOCHU has invested in several coal interests, but in the future these businesses will likely be subject to carbon tax. Also, countries will introduce energy diversification policies, which will lead to the promotion of renewable energy and energy saving technology. The changing and more competitive prices of renewable energy risks decreased profits from coal-related businesses, causing these assets to become impaired or fixed.

Based on this risk analysis, in 2019 ITOCHU announced that we will not develop a new coal-fired power plants or acquire thermal coal mine businesses. In February 2019, we sold all interests in the Rolleston thermal mine owned by ITOCHU Minerals & Energy of Australia Pty Ltd (IMEA). In 2021, we declared through our Medium-term Management Plan that we will lead the industry in realizing a decarbonized society. As part of this initiative, we sold off interests in Drummond and Ravensworth North.

We will continue to review existing thermal coal mine businesses as we seek to contribute to the development of a sustainable society while also continuing to meet societal demands for stable energy supply to domestic and overseas consumers.

Full Switchover to Real CO₂-free Electricity at Tokyo Head Office

ITOCHU is sourcing its real CO₂-free electricity, together with a Non-Fossil Fuel Energy Certificate showing the environmental value of not emitting CO₂, from TEPCO Energy Partner, Incorporated, which supplies electricity to the Tokyo Head Office since January 2020. The Non-Fossil Fuel Energy Certificate includes the tracking information (information about type of energy sources and power plant location) of Maebashi Biomass Power Plant (Maebashi, Gunma Prefecture), which is operated by a subsidiary of Kandenko Co., Ltd., and is used at the Tokyo Head Office building in combination with purchased electricity. This initiative can also be used to prove compliance with "RE100," a global initiative of businesses committed to 100% renewable electricity, in response to the global trend towards decarbonization.

* Press release regarding full switchover to real CO₂-free electricity at Tokyo Head Office (<https://www.itochu.co.jp/en/csr/news/2019/191217.html>)



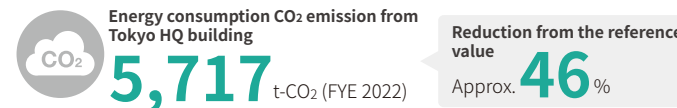
Initiatives for the Tokyo Metropolitan Government Program to Prevent Global Warming

ITOCHU submitted a plan to the Tokyo Metropolitan Government to reduce the CO₂ emissions in our Tokyo Headquarters by 25% from the reference value (average value from FYE 2003 to FYE 2005) over five years from FYE 2021 to FYE 2025 based on the Ordinance on Environmental Preservation. Our energy consumption CO₂ emission in FYE 2022 was 5,717t-CO₂. This is an approximately 46% reduction compared to the reference value.

The document we have submitted to the Tokyo Metropolitan Government is as follows.

* Greenhouse Gas Emission Reduction Plan for FYE 2021 to FYE 2025 (Submitted in November 2022) (Japanese Only) (<https://www.itochu.co.jp/en/csr/pdf/ondanka-202211.pdf>)

* In addition to the Tokyo Headquarters, the adjacent commercial facility of Itochu Garden is also subject to the Greenhouse Gas Emission Reduction Plans submitted to the Tokyo Metropolitan Government.



Climate Change (Information Disclosure Based on TCFD Recommendations)

Collaboration with Outside Initiatives

Activities Through Business and Industry Groups

We are participating in the Global Environment Subcommittee of the Committee on Environment and Safety — an environment and energy related committee of the Japan Business Federation (Keidanren). We are working to realize an environmental policy compatible with the economy (e.g., through promotion of voluntary action plans, and measures for global warming, waste and recycling and environmental risks). We are also participating in the Global Environment Committee of the Japan Foreign Trade Council. We are striving to build a low-carbon society, construct a recycling-orientated society, and to support environmental related laws and regulations. Climate change-related targets set out in the Global Environment Committee are as follows.

2030 Reduction Targets for Domestic Business Activities (Trading Industry)

- In FYE 2031, we will strive to reduce unit power consumption (Electric power consumption per floor area for the entire company) by 15.7% from FYE 2014 level. (Reestablished July 2018)
- If we decide the direction regarding such as climate change in various industry groups we participate, we express an opinion in line with our Basic Policy on Sustainability in the decision process, and when it is different from our policy, we will strive to be in line with our policy.

TCFD Consortium

ITOCHU announced its support for TCFD in May 2019, which encourages companies to disclose financial information related to climate change. By participating in the TCFD Consortium*, we will continuously engage in the appropriate disclosure of ITOCHU business risks and opportunities associated with climate change.

*The TCFD Consortium established on May 27, 2019 by Ministry of Economy, Trade and Industry (METI), Ministry of the Environment (MOE), and the Financial Services Agency (FSA) as a body for promoting discussion and deliberation among companies and financial institutions supporting the TCFD mission.

CDP (Climate Change & Water Security)

ITOCHU is actively providing information on ESG initiatives to various stakeholders around the world. As part of these initiatives, we participate in the CDP, an NGO that is recognized worldwide as a global standard for corporate environmental information disclosure. Since FYE 2014, we have been responding to the CDP's climate change and water security questionnaires.

Climate Change Campaign “COOL CHOICE” led by Ministry of the Environment

ITOCHU participates in the Ministry of the Environment-led COOL CHOICE climate change campaign to realize a decarbonized society. We are striving to adjust our air conditioning in the summer and winter and to switch off unnecessary electricity. We also conduct environmental conservation activities that all employees can do in their daily lives such as sorting waste and promoting recycling in the offices.

◦ COOL CHOICE Website (Japanese Only) (<https://ondankataisaku.env.go.jp/coolchoice/about/>)

GX League formulated by the Ministry of Economy, Trade and Industry

In 2022, ITOCHU expressed its support for the GX League Basic Concept established by the Ministry of Economy, Trade and Industry, and has been actively involving and making proposals at the public-private councils regarding the concept of emissions trading, the carbon credit market, and the ideal way to trade credits in the GX League. Taking into account our involvement of the various initiatives during the preparatory period for the establishment of the GX League, we participated in the GX League, which began in earnest in April 2023. The GX League will take on the challenge of GX (Green Transformation) with a view to achieving carbon neutrality and social change in 2050, and will serve as a forum for collaboration among industry, government and academia to achieve sustainable growth. As a participating company, our company will continue to be actively involved in the league's initiatives, including emissions trading, which is a concrete policy tool for decarbonization, and contribute to the virtuous cycle of the environment, economy and society, including climate change.

◦ GX League (Japanese Only) (<https://gx-league.go.jp/>)

Japan Climate Initiative (JCI)

ITOCHU participates in the Climate Change Initiative, a network of Japanese non-governmental actors actively working to achieve the 1.5 degree target. This network gathers companies, local governments, organizations, and NGOs who support the idea of “participating from Japan on the front line of decarbonization.”

Prevention of Pollution and Resource Circulation

Policy and Basic Concept

Prevention of Pollution

ITOCHU’s Environmental Policy states in item 3. that within its business activities, ITOCHU shall prevent and reduce environmental pollution caused by chemical substances and oils, reduce emissions of air pollutants, and reduce and properly process hazardous waste and wastewater. In addition, as stipulated in item 1. of our Environmental Policy, ITOCHU will fulfil its responsibility by enacting the following statement: We shall comply with international declarations, agreements, and treaties, as well as with the laws and regulations of the countries and regions in which we operate. We shall also comply with any other agreements that we have consented to.

Resource Circulation

Ensuring stable procurement and supply is one of our important ESG challenges identified as a material sustainability issue. As per item 4. of our Environmental Policy, ITOCHU “contributes to the formation of a circular society by promoting the sustainable use of resources (such as fossil fuels, minerals, food, animals and plants), a reduction in the amount of resources used, a reduction in the amount of waste discharged and recycling across our business investments and the supply chain of our products and services,” pointing to our commitment to promote resource efficiency in accordance with our various business operations.

Targets and Action Plan

ITOCHU sets qualitative management targets and quantitative performance targets to promote better practices in pollution prevention and resource efficiency. The environmental targets and achievements in FYE 2023 are as follows.

Qualitative Targets

Item		Boundary	Target	FYE 2023 Results and Evaluation
Prevention of Environmental Pollution and Compliance with Laws and Regulations	Risk Assessment for Investment and Financing Projects	ITOCHU Corporation	Perform pre-investment/financing assessments based on the ESG Checklist, which includes environmental assessment criteria.	Properly implemented
	Raising Management Levels through Auditing	ITOCHU Group	Conduct internal audits on environmental management systems to ensure compliance, improved environmental efficiency, and better overall management.	Properly implemented
	On-Site investigations of Group Companies	ITOCHU Group	Select appropriate Group companies and conduct on-site environmental management investigations for them.	Properly implemented
Promotion of Awareness Activities	Raising Awareness of Laws and Regulations	ITOCHU Group	Increase internal awareness on the Waste Management and Public Cleansing Act and the Soil Contamination Countermeasures Act, as well as other relevant regulatory developments by providing learning opportunities such as seminars and courses. We will also monitor and review participation/uptake rates of these trainings in relevant segments of the company.	Properly implemented
Resource Conservation, Promotion of Resource Circulation, and Monitoring of performance	Office Waste Reduction	ITOCHU Corporation	Reduce waste and promote recycling in office activities in accordance with our EMS.	Properly implemented
	Paper Consumption Reduction Target	ITOCHU Corporation	Reduce paper consumption by raising awareness of our targets internally.	Properly implemented

Quantitative Targets

Item		Boundary	Target Period	Target	Progress in FYE 2023 Against Targets	Assessment
Prevention of Pollution	Serious Environmental Accident	ITOCHU Corporation*	Every Fiscal Year	Zero Serious Environmental Accident	Zero	Achieved
	NOx SOx Emission Concentration	TAKIRON TECH CO., LTD.	Every Fiscal Year	Suppress to a level 20% below the legal standard	Achieved	Achieved
		ITOCHU Ceratech Corporation	Every Fiscal Year	Suppress to a level 20% below the legal standard	Achieved	Achieved
Resource Circulation · Waste Discarded	Volume of Waste Discarded	Tokyo Headquarters	March 2025	6% Reduction Compared to FYE 2019	37% Reduction Compared to FYE 2019	Achieved
	Recycling Rate		March 2025	90%	91%	Achieved
Resource Conservation	Paper Consumption	ITOCHU Corporation	March 2025	3% Reduction Compared to FYE 2019	53% Reduction Compared to FYE 2019	Achieved

* ITOCHU Corporation, Overseas offices, Group companies subject to compliance



Prevention of Pollution and Resource Circulation

Action Plan

Risks	Opportunities
<ul style="list-style-type: none"> Negative impacts on the natural environment including those related to resource circulation. Deterioration of relations with local communities and subsequent loss of social license to operate. 	<ul style="list-style-type: none"> Increased resource demand due to population growth and enhanced living standards in emerging economies. Creation of customer trust and new business opportunities through stable and sustainable supply chain practices.

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Textile Company								
Ensure Stable Procurement and Supply		Supply Chain	Reducing our environmental burden in manufacturing processes	Textile products in general	We will promote the building of value chains starting from raw materials focused on sustainable materials.	Promote the RENU project aiming to realize a circular economy in textile industry. Aim to further enhance and expand the handling of sustainable materials.	<ul style="list-style-type: none"> Contribute to fostering of environmental awareness and reducing our environmental burden by promoting the RENU project and further enhancing and expanding the handling of sustainable materials. Work for the goal of "Zero Fashion Loss" and "Carbon Neutrality" committed by Japan Sustainable Fashion Alliance to achieve by 2050. 	<ul style="list-style-type: none"> Started the clothing collection service "WEAR TO FASHION" along with investment to ECOMMIT Corporation. By reusing the collected clothes and using some of them as raw materials for "RENU", the "RENU" project will further promotes a circular economy. The Japan Sustainable Fashion Alliance made policy proposals to Consumer Affairs Agency, Ministry of Economy, Trade and Industry, and Ministry of the Environment for "zero fashion loss" and "carbon neutrality" this fiscal year.
Machinery Company								
Address Climate Change (Contribute to a Decarbonized Society)	 	<ul style="list-style-type: none"> Water Resources Pollution Prevention and Resource Recycling 	Improving water and sanitation infrastructures	Water and environmental projects	We will contribute to improve the sanitary conditions, the development of economic activities, and the protection of the global environment through the appropriate treatment and effective use of water and waste.	Expand water and environment projects to promote the appropriate use and treatment of water and the effective utilization of resources, and reduce the burden on the environment.	Expand and diversify the investment portfolio in the water and environment field. (Plan to work on decarbonization project development utilizing JCM etc.)	<p>Environmental Field</p> <ul style="list-style-type: none"> We operate four municipal solid waste incineration and power generation plants(waste to energy plant) in the U.K, which treat 1.3 million tons of waste annually, accounting for 15% of the UK's waste incineration market, and generate enough electricity to power 160,000 British households. In November 2020, we acquired a 20% stake in Environment Development Company Ltd. (current SSEES), which provides integrated hazardous waste management services in Jubail Industrial City in Saudi Arabia. In August 2021, we started to provide the government of Serbia with partial service of energy-from-waste project. Appropriate treatment of municipal solid waste in City of Belgrade and reduction of environmental pollution and greenhouse gas emissions has begun without environmental loads. Recycling of construction waste has also begun. We are currently constructing a municipal solid waste incineration and power generation plant(waste to energy plant). 7 SDGs certified, with an expected reduction of approximately 210,000 tons of greenhouse gas emissions, and, in 2022, the project obtained Certification of Carbon Credit by Gold Standard. In December 2020, we entered a concession agreement for the development and operation of an Energy-from-Waste (EfW) plant with Dubai Municipality. This is the first EfW project in Dubai and will be one of the largest EfW plants in the world, processing half of municipal solid waste from the emirate per year (1.9 million tons), which is currently under construction. We are aiming to enhance the functions of our initiatives that to capture strong demand for waste management services in light of intensifying environmental regulations in each the industrial sector and the growing awareness of ESG and SDGs more generally in the same way as in the water field.
Energy & Chemicals Company								
Ensure Stable Procurement and Supply		Plastic	Efforts leading to solutions to social problems	Plastic-related environmental response	We will contribute to solving social problems (e.g., marine plastics and waste plastics) that urgently require measures with a plastic-related environmental response.	Supply environmental materials and establish a recycling/reuse program in collaboration with brand owners.	Build a recycling-oriented-model by enhancing our handling of environmental materials and establishing a recycling/reuse program.	<ul style="list-style-type: none"> We developed an eco-friendly paper packing material consisting of nature-derived, biodegradable resins produced by Lactips, a bio startup with Ajinomoto Co., Inc., TOYO INK CO., LTD, and ITOCHU PLASTICS INC. (May, 2022) We have conducted demonstration trial on recycling of plastic beverage bottles with the use of a prototyped traceability system at real FamilyMart store under the BLUE Plastics project. (July, 2022) We have offered recycled ocean plastic waste as a recycled raw material to MITSUBISHI PENCIL CO., LTD., and MITSUBISHI PENCIL has developed a ballpoint pen that partially makes use of this raw material. This product was the first in the stationary industry to receive Eco Mark certification using ocean plastic as a raw material. (July, 2022)

Prevention of Pollution and Resource Circulation

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Food Company								
Ensure Stable Procurement and Supply		Pollution Prevention and Resource Recycling	Supply and use of environmentally friendly resources and materials	Fresh food field	Through the reduction of food loss, we will contribute to the promote the effective use of the resources and reduce the environmental impacts.	The company will brand and commercialize the out-of-spec Dole bananas discarded in Japan and Philippines as Mottainai bananas and distribute them in the market again.	<ul style="list-style-type: none"> Consider diversifying this movement into processed foods and developing new products by using raw materials other than bananas. Aim to increase the volume of the reused bananas. 	<ul style="list-style-type: none"> Manufacturing of Banana-derived products using former-waste bananas in the production site(Philippines) is ongoing. (Total banana usage: about 670Tons) Dole National Brand products: Chocolate-coated frozen bananas, Jelly products Dole products with brand license contracts: Ice cream (Lotte), banana-flavored milk (Family Mart), Snacks&Bread (Tokyo Banana, etc) We processed off spec banana, which is supplied to FMPB ("Famimaru"), into puree and supplied the puree for the processed FM foods such as beverage. Promotions are being continued in key locations such as Dean & Deluca and banana juice shops (7days BANANA, BANANA STAND etc). Number of media exposure as of Mar, 2023. end: 1,101 Reused Banana as of Mar, 2023. end: about 200,000 bunches (equivalent to 30 tons)
ICT & Financial Business Company								
Ensure Stable Procurement and Supply		Pollution Prevention and Resource Recycling	Provide products/ services that support the realization of a sustainable lifestyle.	Reuse / Recycling Business	Contribute to the development of a sustainable society by making most of limited resources through the distribution of used mobile phones and tablets in the Japanese market.	<ul style="list-style-type: none"> Expand supply channels in order to realize a sustainable and stable procurement of resources. Reinforce promotional activities in order to raise the awareness of secondhand mobile phones/tablets. 	<ul style="list-style-type: none"> Expand product variation and supply channels. Expand distribution outlets. 	<ul style="list-style-type: none"> The number of models handled increased from 534 (FYE 2022) to 671 (FYE 2023). (25.6% increase over the previous year) Procurement sources increased from 3 companies (1 country: Japan) in FYE 2022 to 6 companies (3 countries including Japan, Hong Kong, and US) in FYE 2023. As for distribution channels, sales on major EC business operator were launched and maintained a favorable level.

Structures and Systems

Evaluation Methods of Pollution Prevention and Resource Circulation for Each Business Phase

Business Start Phase

For business investment projects that ITOCHU undertakes, the impact of the project on society and environment is evaluated in advance using the ESG Checklist for Investments — a checklist that must be submitted when entering into new business investment projects. For example, it includes monitoring the status of pollution prevention and resource circulation. The project is then only undertaken upon confirming that there are no problems in the results of those investigations.

ITOCHU considers ensuring stable procurement and supply to be a material sustainability issue. We work to effectively utilize and to ensure stable procurement and supply of resources according to demand in each country with consideration for the environment (e.g., biodiversity). In doing this, we are aiming for a recycling-oriented society.

Business Management Phase

ITOCHU conducts annual supply-chain sustainability surveys to assess the environmental and social risks of the products we handle, and requires suppliers to ITOCHU and our consolidated subsidiaries to report on their management practices regarding environmental issues, etc. Through these surveys, we evaluate each supplier's efforts to reduce its environmental impact and encourage them to implement a PDCA cycle for continuous improvement.

Prevention of Pollution and Resource Circulation

Management of Chemical Substances

The chemicals handled in the Chemicals Division are those that have potentially serious impacts on human health and the natural environment and have become subject to various laws and regulations that aim to ensure appropriate handling across the supply chain – including during manufacturing, sales, transportation, and storage. Furthermore, the appropriate management of chemicals is crucial from a business perspective for our Chemicals Division as well, as violations and cases of non-compliance can impact the regulatory approvals we require on certain products.

There is an international trend to minimize risks at every level of the entire supply chain of chemicals. Against this background, both advanced nations and developing nations have started to introduce new regulations and to make large-scale revisions to existing regulations. Consequently, the regulatory environment in the handling of chemicals is expected to become ever stricter in the future.

We recognize the importance of compliance with laws and ordinances in addition to knowledge of products and the industry as a company that handles chemicals. Our basic policy is that each individual should engage in business in accordance with the requirements of laws and ordinances upon correctly understanding the laws and regulations concerning the products that they are in charge of handling.

Compliance with Laws and Regulations in the Divisions Handling Chemical Substances

At ITOCHU, the Chemicals Division has cross-functional oversight of our management of chemical substances. This includes oversight of the sales departments that handle chemical substances, which sit within the Chemicals Division, as well as relevant subsidiaries that handle chemical substances. In addition, the Chemicals Division has oversight of any sales divisions and subsidiaries outside of their direct control if chemical substances are used.

We strive to comply with laws and regulations through a management method based on a combination of thorough inquiries to specialized external consulting organizations and the use of a centralized management system to track environmental legal compliance. The management system was developed internally in 2016 and allows us to confirm and record applicable laws and measures at the chemical substance level for each product. We also provide training and educational opportunities to relevant sales staffs, supplemented by e-learning materials and handbooks that summarize the main points of relevant laws.



The external consulting organization that we currently employ for chemical substance management is Techno Hill Co., Ltd. (Headquartered in Chuo-ku, Tokyo; Representative Director: Kazuyuki Suzuki). Techno Hill has comprehensive knowledge regarding the field of chemical substances and provides us with informed advice on management systems, applicable laws and regulations for each product, and general trends movements in the industry.

In order to maintain and improve the abilities of each person in charge at a high level, we distribute its own handbook on chemical-related regulations to all persons in charge. There are 32 laws and regulations covered in this handbook, each of which outlines important aspects of compliance requirements. The purpose of this handbook is to educate our employees, especially new recruits and sales personnel, on the laws and regulations specific to the chemical industry.

By taking these initiatives, in FYE 2023, there were no major violations caused (e.g. license suspensions).

Major violations
0

Management Structure for Emergency Response and Accident Response

ITOCHU responds as below in accordance with our accident and emergency response regulations. If an accident occurs during the handling or storage of toxic or hazardous substances, we respond as follows in line with the Pharmaceutical Key Toxic and Hazardous Substance Risk Prevention Procedures Manual.

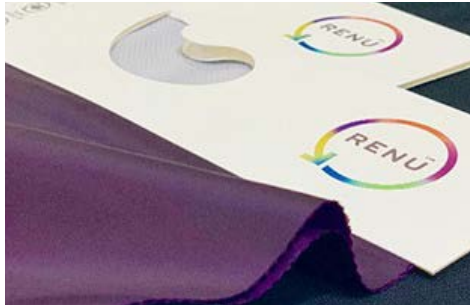
- We will make reports as necessary according to the emergency contact network in the above manual. In addition, we will take prompt action to limit the risks caused by toxic and hazardous substances.
- In the event of splashing, leaking, outflow, seepage or penetration underground, we will immediately notify the health care center, police station or fire department to that effect when there is a fear of a risk to the health of an unspecified or large number of people. At the same time, we will take measures to prevent risks to health.

Prevention of Pollution and Resource Circulation

Initiatives

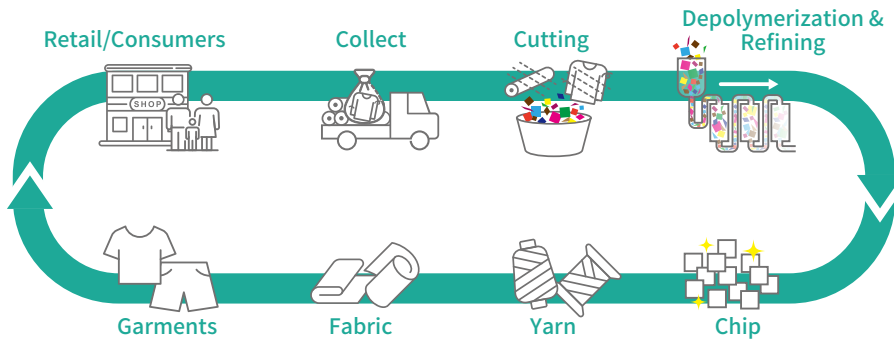
RENU® Project Aims to Realize Circular Economy

In the spring of 2019, we launched a project called the RENU® project (“RENU”), which aims to address the issue of excessive waste in the fashion industry and realize circular economy. As its first product, we are developing recycled polyester made from textiles such as waste leftover fabric and used clothing. We will contribute to realize circular economy by developing this project through the entire supply chain of the fashion industry from raw materials to consumers.



RENU® project website (<https://renu-project.com/en/>)

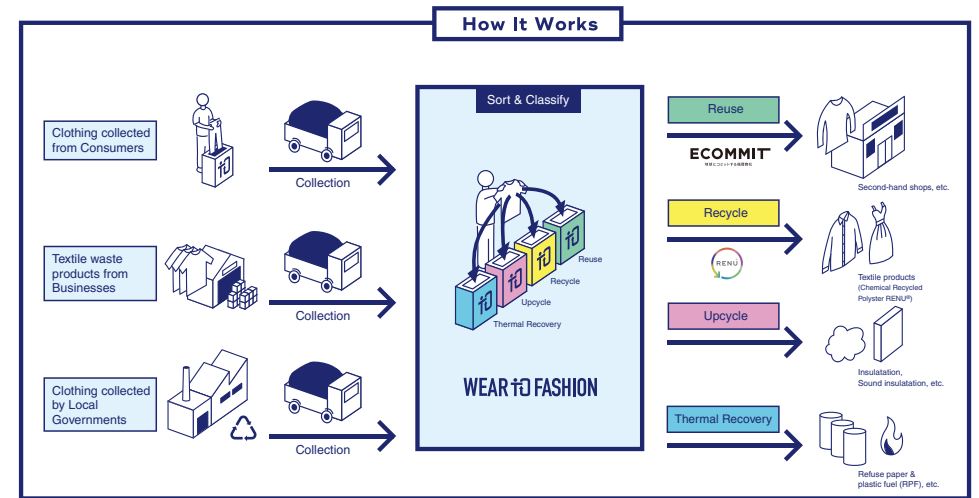
RENU Aims for a Closed Loop Economy



Expansion of the Textile Collection Service for a Circular Economy

ITOCHU Corporation and Ecommit Corporation, which develops resource recycling businesses through reusing and recycling, have signed an agreement to expand the textile collection service “Wear to Fashion” in the Japanese market. Starting spring 2022, the service will gradually be offered to all companies and local governments in Japan.

With this new initiative as a part of the RENU Project aimed at solving a problem in the textile and fashion industries, textile products coming out of various sites will be collected and sorted through combining ITOCHU’s network in the textile and fashion industries and Ecommit’s system from collection to resource recycling. Reusable products will be reused utilizing Ecommit’s knowledge, and recyclable polyester products will be made into RENU. In doing so, the amount of discarded textile products will be reduced as much as possible and aims to realize a circular economy.



Environmental Impact

The environmental impact of handling recycled polyester at RENU project is as follows.

	FYE 2021	FYE 2022	FYE 2023*
Feedstock equivalent to T-shirt	3.5 million pieces of T-shirts	6.0 million pieces of T-shirts	6.3 million pieces of T-shirts
Reduced CO ₂	521 tons	893 tons	1,931 tons
Reduced Water	875 kiloliters	1,500 kiloliters	6,500 kiloliters

* Adopted LCA for FYE 2022

Prevention of Pollution and Resource Circulation

Leading UK for Collecting and Recycling Casing Tyres

Murfitts Group Limited, a company under ITOCHU subsidiary European Tyre Enterprise Limited, collects and processes casing tyres in the UK each year. Using the recovered material it manufactures a range of recycled products such as rubber crumb products for sports surfaces, pathways, children's playgrounds, carpet underlay, modified asphalt and many other industrial applications. Its products are exported to markets across the globe.



Pro gran Crumb Rubber made by casing tyres

Murfitts also has been developing and commercializing a proprietary pyrolysis technology, which decompose the tyre feedstock at high temperatures in a vacuum in order to recover various high-value materials such as carbon black and recycled fuel oil. This technology will help promote sustainability initiatives in the tyre industry by replacing one of major raw materials of tyres, carbon black, with a recycled product.

ITOCHU Announces Development of Garbage Bag Made from Ocean Plastic Waste

ITOCHU believes that ocean waste is a significant social challenge and has been engaging in material recycling businesses, recycling ocean plastic waste and turning it into products that are commercialized. In cooperation with Tsushima city, we have succeeded in the recycling. Our subsidiary, Sanipak Company Of Japan, Ltd., leveraging the knowledge and technology it possesses as Japan's largest garbage bag maker, has developed the world's first* garbage bag made in part with raw materials made from ocean plastic waste.

ITOCHU and Sanipak Japan have provided some of these new garbage bags free of charge to Tsushima city and other areas that need garbage cleaning activities on their coastlines, and will establish a recycling economy-oriented business model to resolve the problem of marine debris that society faces.

* According to research by ITOCHU



Garbage Bag Made from Ocean Plastic Waste

Develop Environmentally-friendly Garbage Bags “nocoo”

Sanipak Company of Japan Ltd., a subsidiary of ITOCHU, has developed “nocoo” environmentally-friendly garbage bags that reduce carbon dioxide emissions. The use of natural lime stone as a raw material for nocoo reduces plastic use by approximately 20% and reduces carbon dioxide emissions during the manufacture and combustion of garbage bags by approximately 20% compared to 100% polyethylene garbage bags. In FYE 2023, sales of nocoo in the 47 prefectures of Japan totaled 5,117 tons, contributing to a reduction in plastic use of 1,177 tons and a reduction in carbon dioxide emissions (when incinerated) of 3,213 tons.

With nocoo, we will continue to address environmental issues that are familiar to everyone, such as reducing carbon dioxide emissions through regular garbage disposal.

* nocoo website (Japanese only) (<https://www.sanipak.jp/series/nocoo.html>)



“nocoo” environmentally-friendly garbage bags

Prevention of Pollution and Resource Circulation

Introduction of Shopping Baskets and Collection Box Using Ocean Plastic Waste as the Raw Material in FamilyMart Stores around the Nation

ITOCHU has developed shopping baskets made using ocean plastic waste washed ashore in Tsushima in Nagasaki Prefecture as part of the raw materials together with FamilyMart Co., Ltd. and TerraCycle Japan GK. We have introduced these shopping baskets into a total of 27 FamilyMart stores (as of the end of March 2023) in Tsushima and Iki in Nagasaki Prefecture and elsewhere since February 2021. Also, we have developed a food collection box that is partially made from ocean plastic waste that drifted ashore for the FamilyMart Food Drive program. ITOCHU rolled out this collection box to over 2,000 FamilyMart stores (as of the end of March 2023) around the nation to promote community-based SDGs activities.



Initiatives to Introduce Environmentally-friendly Packaging in FamilyMart Stores

FamilyMart, a subsidiary of ITOCHU, has set goals of increasing the ratio of environmentally-friendly containers and packaging* to 60% by 2030 and 100% by 2050, as part of its efforts to curb plastic use in FamilyMart Environmental Vision 2050.

By changing the specifications of containers and packaging, FamilyMart is working to reduce the amount of petroleum-based plastics used in the raw materials of containers and packaging and to promote the use of environmentally-friendly materials. We will continue to work toward achieving our 2030 and 2050 targets with the understanding and cooperation of our suppliers and consumers.

* Containers and packaging made from materials including plant-based biomass plastics and recycled PET

Major Initiatives in Environmentally-friendly Packaging

Details of Initiatives	Reduction in Use of Plastics
All salad containers are made of environmentally-friendly materials such as biomass plastic.	Reduction of about 900t per year
Containers of private brand natural water are gradually replaced with recycled PET plastic bottles made from 100% recycled PET resin.	Estimated reduction of about 260t per year
<ul style="list-style-type: none"> For hand-rolled rice balls, all product packaging films have been replaced with biomass polypropylene (bio-PP) blend materials. The sandwich packaging has been thinned and the shape of header has been changed from square to trapezoidal. 	Reduction of about 19t per year
Some containers of pasta products contain bio-PP, which has obtained ISCC certification.	

Effort to Reduce Plastics at Convenience Stores

In accordance with the Act on Promotion of Resource Circulation for Plastics that went into effect in April 2022 in Japan, FamilyMart has set a goal of reducing the amount of petroleum-based plastics use by FYE 2031 by 50% from FYE 2020 level, and is working to reduce the amount of plastic spoons, straws, and other items distributed to customers who purchase boxed lunches, desserts, beverages, and other items.

Results of Major Initiatives to Reduce the Use of Certain Plastic Products

Start Year	Details of Initiatives	Reduction in Use of Plastics
2021~	<ul style="list-style-type: none"> Design of the handle of the plastic spoon was changed. In principle, we stopped offering plastic forks. (We continue to offer chopsticks as an alternative or fork if desired) 	<ul style="list-style-type: none"> Reduction of about 12% per year Estimated reduction of about 250t per year
2022~	FamilyMart launched the “Convenience Wear Blue Green” project to sell products made with environmentally-friendly materials, such as washable and reusable cutlery sets, open-and-wash straws, and spoons and forks made with biodegradable biopolymers.	

Prevention of Pollution and Resource Circulation

Collaboration to Introduce Renewable Biomass Polypropylene in the Japanese Market

Japan has formulated a basic strategy to introduce approximately two million tons of biomass-based plastic products by 2030 as a countermeasure against ocean plastic waste and climate change.

ITOCHU has reached an agreement with Borealis AG (Borealis) and Borealis AG and Borouge Pte Ltd. to introduce biomass polypropylene (bio-PP) derived from renewable resources and develop its business in the Japanese market. Borealis, one of the world's leading manufacturers of plastic resins, began commercial production of bio-PP in March 2020 and has been expanding sales to Europe and the rest of the world.

We target to commercially launch food containers and packaging materials made of bio-PP. FamilyMart initially in Japan began replacing some of its pasta containers made with bio-PP. We are also working to develop products in a diverse range of fields, including sanitary products, household goods, cosmetics containers, office supplies, home appliances, and automobile parts.

ITOCHU has obtained ISCC PLUS certification for the domestic sales of Borealis bio-PP manufactured by the mass balance method. This certification proves sustainable raw material procurement in a way that can be traced through the supply chain, and the portion of biomass raw material contributes to GHG emissions reduction.

The Cooperative Development of Material Recycling Technology for Multi-layer Film Packaging

ITOCHU Corporation has entered into an agreement for cooperative development of material recycling technology for multi-layer film packaging with Toyo Ink SC Holdings Co., Ltd.

In 2019, Toyo Ink Group developed a technology to separate the ink, adhesive, etc. that make up the multi-layer film or packaging in cooperation with the world's largest environmental solutions company. A demonstration pilot plant started operation at the end of 2022, and, moving forward with LCA (Life Cycle Assessment) appraisals, cost simulations, and other verifications. Toyo Ink Group plans to start a post-industrial recycling business in 2023, and aim to start the business under commercially conditions by 2025.

In addition to acquiring exclusive marketing rights in Japan and first refusal rights in Asia and Europe related to major product materials related to this technology, we will widely provide environmental solutions to food and consumer products company, retailers, brand owners, and more through requests to build structures for material recycling using this technology and to design recyclable, environmentally-friendly packaging.

Through this initiative, both companies will make currently un-recyclable multi-layer film packaging into a recyclable product, aiming for a more than 40% material recycling rate in Japan and abroad.

The Recovery of Nylon Waste to ECONYL® Nylon Products

ITOCHU Corporation and Aquafil S.p.A. have concluded capital and business alliance to promote and expand the businesses of circular nylon production.

Nylon is used for textiles and plastic materials made through petrochemistry in a range of fields such as fashion, carpeting, fishing, food packaging, and automobiles. However, many products use nylon blended with other materials in a compound form, making it a difficult material to be recycled.

In 2011 Aquafil created its ECONYL® Regeneration System that turns recovered nylon waste such as fishing nets, carpets and post-industrial waste back to caprolactam (CPL), a crude raw material. Through its proprietary chemical recycling technology, Aquafil eliminates impurities completely, to achieve regenerated nylon product having the same features of the virgin quality materials. ECONYL® nylon is made completely from waste, which enables up to 90% CO₂ reduction compared to conventional nylon made from petroleum.

ITOCHU will leverage on its Group's diverse network and expand sales for applications in fashion, carpeting, automobiles, and packaging materials. In February 2022, YKK, which is a global leader in the manufacturing and sale of zippers, Aquafil and ITOCHU are jointly developing environmentally friendly recycled zippers and recycled buttons.

Moreover, ITOCHU plans to enforce Aquafil's nylon recovery scheme using its existing sales chain and will also implement the Partnership from the perspective of the stable supply of raw materials to Aquafil. Through its collaboration from the recovery of waste to the sale of Aquafil's products, ITOCHU aims to expand the businesses of nylon circularity.

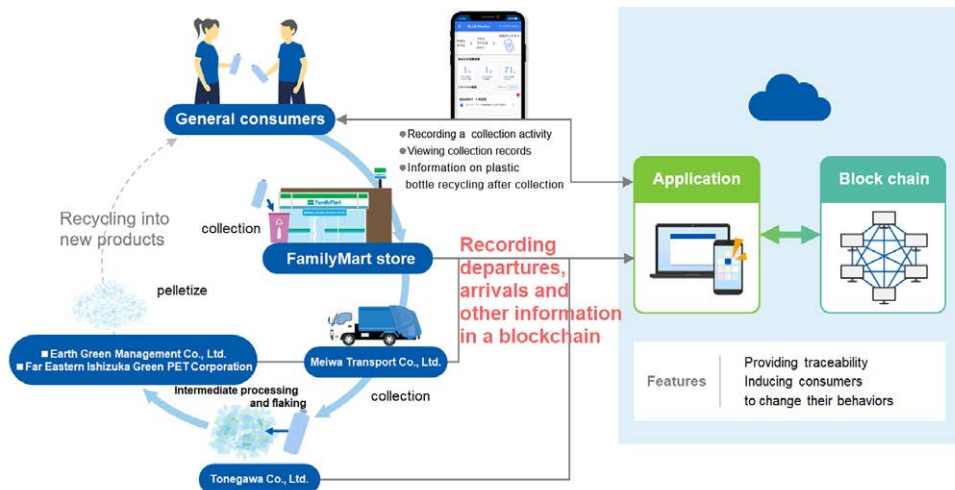


Prevention of Pollution and Resource Circulation

Verification of the Value of Traceability in the Recycling of Plastic Bottles

ITOCHU Corporation, ITOCHU Plastics Inc., FamilyMart Co., Ltd. and Asahi Kasei Corporation are conducting a demonstration trial (hereinafter “the Trial”) on recycling of plastic beverage bottles with the use of a prototyped traceability system at real FamilyMart store under the BLUE Plastics project in September 2022. BLUE in the project’s name is an acronym for Blockchain Loop to Unlock the value of the circular Economy.

It has been difficult for consumers to learn about the recycling chain of collected plastics and about what products are derived from such plastics. The purpose of the Trial is to investigate whether or not the visualization of the plastic bottle recycling chain will change consumers’ behaviors and what impact it will have on the reuse of recycled plastics and assess the value of the traceability. To do so, we developed and provided a smartphone app which enables to trace the progress of recycling collected plastic bottles from being placed in the recycling bin to being processed into recycled material.



Through a series of activities including the Trial, we will verify the value of traceability ensured by the digital platform and push further ahead plastic resources recirculation.

The License Business of Polyester Chemical Recycling Technology

ITOCHU Corporation, Teijin Limited, and JGC Holdings Corporation have signed agreement to establish a joint venture company, RePEaT Co., Ltd. (hereinafter “RePEaT”), to license technology for the chemical recycling of polyester products.

In response to urgent needs to counter global warming, the fiber and textile industry is working on measures, including the establishment of ecosystems for resource recycling, to address issues such as CO₂ emissions from manufacturing processes and the mass disposal of used clothing. Currently, disposed textile products are used as a heat source (thermal recovery) or as raw materials for the production of other products (material recycling). Chemical recycling, however, is a revolutionary method of chemical decomposition for textile recycling that turns used textile products into new textile raw materials.

RePEaT will license recycling technology by taking advantage of Teijin’s proprietary chemical recycling technology, the expertise of JGC derived from its global engineering business, and ITOCHU’s extensive network of textile industry players. Customers in Japan and other countries are expected to launch the cost-effective chemical-recycling business for the production of polyester materials.

In addition, RePEaT will provide consulting services to help customers establish ecosystems that collect used polyester fiber products for reuse as raw materials, thereby contributing to a more sustainable world through recycling.

Number One Trader in the World for the Cement Substitute of Blast Furnace Slag

Blast furnace slag is a by-product of the steelmaking process. Mixing and using it with cement as a cement substitute makes it possible to save natural resources (e.g., limestone – the raw material of cement). It is an environmentally friendly product that can reduce the CO₂ generated during manufacturing by about 40%* compared with when making concrete only with cement.



Structure Made with Blast Furnace Slag

It is highly durable against seawater and the steel material in it is less likely to suffer corrosion over a long period of time. Therefore, it is widely used in large civil engineering projects at ports.

We have been selling blast furnace slag produced in Japan and overseas in around 10 countries since about 20 years ago. We handle of volume of blast furnace slag that makes us the number one trader in the world for it. In the future, value for blast furnace slag will be expected to rise affected by trend of decarbonization around the world. Therefore, we moreover focus to build continuous and stable distribution channels and consider investing and participating in the slag business.

* Calculated at a 55:45 ratio for cement and blast furnace slag

Prevention of Pollution and Resource Circulation

Collaboration with Outside Initiatives

Compliance with the Containers and Packaging Recycling Law ■ The Recycling Fee We Pay Every Year

(Unit:Yen)

ITOCHU understands our own manufacturing and import volume of containers and packaging every year to recycle containers and packaging. We then pay a recycling fee to the Japan Containers and Packaging Recycling Association. The aim of this is to contribute to promoting the formation of a recycling-orientated society as a specified business operator prescribed by the Containers and Packaging Recycling Law.

Fiscal Year	FYE 2017			FYE 2018			FYE 2019			FYE 2020			FYE 2021			
	Recycling Fee / Contribution Fee	Recycling	Contribution	Total Amount	Recycling	Contribution	Total Amount	Recycling	Contribution	Total Amount	Recycling	Contribution	Total Amount	Recycling	Contribution	Total Amount
Glass Bottles	Colorless	814,414	0	814,414	704,782	9,344	714,126	750,030	0	750,030	813,659	0	813,659	925,650	0	925,650
	Brown	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other Colors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PET Bottles	708	68	776	—	—	—	—	—	—	—	—	—	—	—	—	
Paper Containers and Packaging	18,306	168	18,474	29,327	102	29,429	9,045	27	9,072	15,288	4	15,292	10,168	0	10,168	
Plastic Containers and Packaging	631,798	47,052	678,850	1,057,941	0	1,057,941	1,197,091	0	1,197,091	1,463,900	4,537	1,468,437	2,432,519	0	2,432,519	
Total	1,465,226	47,288	1,512,514	1,792,050	9,446	1,801,496	1,956,166	27	1,956,193	2,292,847	4,541	2,297,388	3,368,337	0	3,368,337	

Food Recycling

ITOCHU makes regular reports on the amount of food we discard and the amount we recycle in Japan to comply with the Food Recycling Law. We are striving to suppress the generation of waste and to promote recycling (e.g. conversion into feed) in line with the reference rate (recycling rate target).

■ Food Recycling Rate

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Quantity recycled	Amount of food waste generated (Unit: t)	869.0	992.8	1,125.8	955.9	939.4
	Amount of recycling (Unit: t)	454.9	744.4	775.5	762.0	854.6
	Amount of disposal (Unit: t)	414.1	248.4	350.3	193.9	84.8
Target (recycling rate target by individual food related operator)	Reference rate	77.8%	78.8%	79.8%	80.8%	80.8%
Percentage recycled	Recycle rate*1	52.3%	75.1%	68.9%	81.9%	91.0%

*1 Recycle rate is calculated as in below formula defined by the Ministry of Agriculture, Forestry and Fisheries.
 (Amount of suppressed waste (vs FYE 2008) + Amount of recycling + Amount of heat recovery × 0.95 + Amount of weight reduction) / (Amount of suppressed waste (vs FYE 2008) + Amount of waste food generated)

* FYE 2024 recycling rate target: 80.8%

Initiative Participation (Activities Through Business and Industry Groups)

ITOCHU is participating in the Global Environment Subcommittee of the Committee on Environment and Safety – an environment and energy related committee of the Japan Business Federation (Keidanren). We are working to realize an environmental policy compatible with the economy (e.g., through promotion of voluntary action plans, and measures for global warming, waste and recycling and environmental risks including water management). We are also participating in the Global Environment Committee of the Japan Foreign Trade Council. We are striving to build a decarbonized society, construct a recycling-orientated society, and to support environmental related laws and regulations. The goals set by the Global Environment Committee are as follows.

Reduction Target for FYE 2026 in Domestic Business Activities (Trading Company Industry)

- Disposal Amount: Reduce 82% compared to FYE 2001
- Generation Amount: Reduce 62% compared to FYE 2001
- Recycling Rate: 83% or more

Water Resources Conservation

Policy and Basic Concept

ITOCHU is aware that the sustainability of water resources is indispensable for business continuity in the various businesses we are developing around the world, including those in water stressed regions. Item 5. “Conservation and Effective Use of Water Resources” of our Environmental Policy states that “We shall reduce water consumption through efficient water use and recycling, as well as take necessary measures to appropriately treat effluents.” To ensure the sustainable use of water, we are committed to raising awareness of water sustainability in our corporate culture and integrating the concern into our business decision making process. In existing businesses, we will conduct a comprehensive assessment of water consumption to improve our water efficiency and reduce water consumption.

Given these global circumstances, ITOCHU Corporation has identified its water-related business as a material area. As such, we are committed to enhancing our global capability regarding our seawater desalination business and our water supply and sewerage concession businesses, which we have been engaging in since 2014. We believe that these initiatives will allow us to contribute to solving water stress and shortage issues around the world.

Targets and Action Plan

ITOCHU sets numerical targets for the reduction of water consumption.

ITOCHU develops water and hygiene infrastructure, and appropriately treats and effectively utilizes water and waste. Through this, our water resource related business contributes to improving the hygiene environment, developing economic activities and conserving the global environment. We are promoting the appropriate use and treatment of water, and the effective utilization of resources through expansion of our water and environmental business. In this way, we are working to reduce our environmental impact.

In our Tokyo Headquarters building, we are implementing resource saving measures to recycle water through the creation of reclaimed water. This allows us to improve our water consumption efficiency in the office. The targets and indicators we track to manage our performance are noted in the table below.

Action Plan

Materiality	SDGs Targets	Impact Classification	Issues to Address	Business Area	Commitment	Specific Approach	Performance Indicators	Degree of Progress
Machinery Company								
Address Climate Change (Contribute to a Decarbonized Society)	 	<ul style="list-style-type: none"> Water Resources Pollution Prevention and Resource Recycling 	Improving water and sanitation infrastructures	Water and environmental projects	We will contribute to improve the sanitary conditions, the development of economic activities, and the protection of the global environment through the appropriate treatment and effective use of water and waste.	Expand water and environment projects to promote the appropriate use and treatment of water and the effective utilization of resources, and reduce the burden on the environment.	Expand and diversify the investment portfolio in the water and environment field. (Plan to work on decarbonization project development utilizing JCM etc.)	Water Field We have developed a water supply service business in the U.K. and seawater desalination business in Australia and Oman. We aim to continue contributing to stable water supply in regions through seawater desalination, and water supply/ and sewerage businesses. At the same time, we are looking to be involved in solutions-based business for water issues in each industrial sector across a range of industries.

Qualitative Targets

Item	Boundary	Target	FYE 2023 Results and Evaluation
Risk Assessment for Investment and Financing Projects	ITOCHU Corporation	Conduct a preliminary risk assessment using the ESG Checklist for Investments, which incorporates a dedicated section to water risks.	Properly implemented
On-Site investigation for Group Companies	ITOCHU Group	Select Group companies involved in businesses where water use is a material risk and conduct on-site investigation on the status of water management.	Held conference with Group companies in areas where water resources are particularly important.
Compliance with Laws and Regulations	ITOCHU Group	Continued awareness and response to domestic and foreign laws and regulations related to water resources (water withdrawal / discharge)	There were no serious legal violations related to water withdrawal and discharge.
Implementation of Water Management Plans	ITOCHU Group	Establish a water management plan to control the amount of water withdrawal, wastewater discharge, the amount of water recycled, and the water quality and temperature at the time of drainage, as well as to make effective use of water resources and reduce environmental impact.	Of the 558 operating companies of the ITOCHU Group, 86 companies, or 15%, have formulated water management plans.

Targets in Water Stressed Regions

Item	Boundary	Target	FYE 2023 Results and Evaluation	
Initiatives in Water Stressed Regions	Risk Assessment for Investment and Financing Projects	ITOCHU Corporation	Conduct a preliminary risk assessment using the ESG Checklist for Investments, which incorporates a dedicated section to water risks. Conduct preliminary risk assessments on water resources for projects and investments in water stressed regions where water resources are critical to operations, such as beverages, agriculture and mining.	Properly implemented
	On Site Investigation for Group Companies	ITOCHU Group	Select group companies operating in water stressed regions and conduct on-site investigation on the status of water management.	Held conference with Group companies in areas where water resources are particularly important.

* Business Activities in Water Stressed Regions (P71)

Quantitative Targets

Category	Boundary	Annual Target	FYE 2023 Results	Target	
				Period	Contents
ITOCHU Corporation	Water Withdrawal (Clean Water)	Tokyo Headquarters	Total Volume Reduction Target 1%/Year	21.3% Reduction Compared to FYE 2019	March 2025 6% Reduction Compared to FYE 2019
Water Stressed Regions*	Water Withdrawal (Clean Water)	Water Stressed Regions	Reduction Target 1.5%/Year	7.2% Reduction Compared to FYE 2020	March 2025 9% Reduction Compared to FYE 2020

* Quantitative targets for water stressed regions cover operations located in areas where the WRI Aqueduct Baseline Water Stress map identifies as “Extremely High Risk”.

Water Resources Conservation

Structures and Systems

Evaluation of Water Resource Conservation in New Business Investment Projects

For business investment projects that ITOCHU undertakes, the impact of the project on society and environment is evaluated in advance using the ESG Checklist for Investments — a checklist that must be submitted when entering into new business investment projects. For example, it includes assessing the amount of water used and discharged, and checking the level of water stress at business sites. For projects that require expert knowledge, we make request to external expert to conduct investigations in advance. The project is then only undertaken upon confirming that there are no problems in the results of those investigations.

We consider ensuring stable procurement and supply to be a material sustainability issue. We are committed to improving the efficiency of our water consumption and taking necessary measures depending on the abundance of water supply in certain regions. By committing to giving these due considerations, we aim to contribute to the global water crisis.

We conduct an environmental impact assessment, which includes water-related supply chain criteria, for all of the commodities we handle. We have also been conducting annual on-site investigations for Group companies having relatively high environmental impacts since 2001 to strengthen our environmental risk management. Throughout the assessment, we engage with the senior management team to assess the company's water efficiency performance (water withdrawal and discharge) at facilities such as factories and warehouses as well as the company's compliance with environmental laws and regulations.

We manage water resource risks by using the World Resources Institute's (WRI) Aqueeduct to assess water stress in the region for manufacturing bases affiliated with our group.

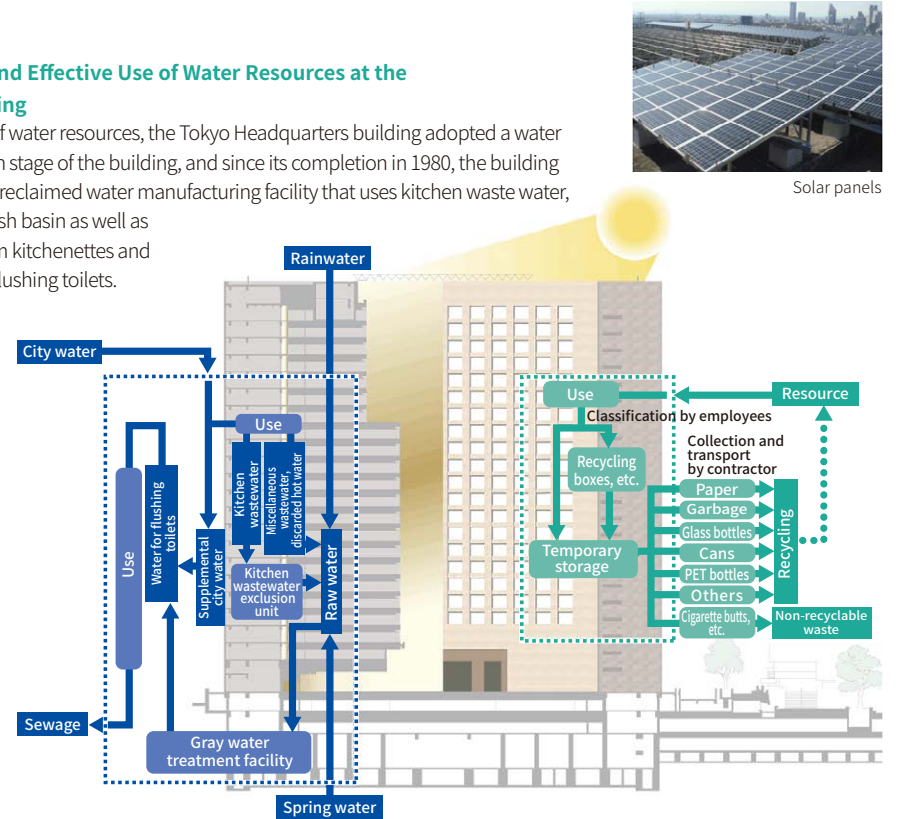
Initiatives for Effective Use of Water Resources

Business Activity

Water Management Plan and Effective Use of Water Resources at the Tokyo Headquarters Building

In order to make effective use of water resources, the Tokyo Headquarters building adopted a water management plan in the design stage of the building, and since its completion in 1980, the building has installed and maintained a reclaimed water manufacturing facility that uses kitchen waste water, rainwater, spring water, and wash basin as well as miscellaneous waste water from kitchenettes and other sources as raw water for flushing toilets.

We strives to make effective use of water resources by implementing water-saving measures to control the amount of clean water used. For example, since the amount of water available varies every year depending on the amount of rainfall, tap water usage tends to increase when rainfall is low. For this reason, continuous improvements are being made to conserve tap water by installing new washbasin, washbasin shower water savers and automatic toilet flushing water savers.



Solar panels

Effective Use of Water Resources by ITOCHU Group

ITOCHU recognizes that conservation of water resources is a global issue along with climate change and other issues. As one of the important issues of the Group's environmental policy, we make efforts to reduce water consumption through efficient water use and recycling, as well as take necessary measure to appropriately treat effluents in our domestic and overseas businesses. For example, ITOCHU's group company PRIMA MEAT PACKERS, LTD. and its group companies has listed "Reduction of factory water consumption (well water and supplied water)" as one of the priority issues for its ISO14001 certified sites and is carrying out reduction activities and progress management in order to reduce food production water intensity (water consumption (m³) / ton of food produced). Actual values are 15.9m³/ton in FYE 2020, 15.3 m³/ton in FYE 2021, and 14.8 m³/ton in FYE 2022.

* PRIMA MEAT PACKERS, LTD.'s ESG Data book 2020 (Japanese only) (https://www.primaham.co.jp/ir/library/attaches/pdf/esg_databook_2020.pdf)

 * PRIMA MEAT PACKERS, LTD.'s ESG Data Book 2021 (Japanese only) (https://www.primaham.co.jp/ir/library/attaches/pdf/prima_esgdatabook2021_b.pdf)

 * PRIMA MEAT PACKERS, LTD.'s Key environmental objectives and performance (<https://www.primaham.co.jp/sustainability/assets/images/pdf/omonakankyoumokuhyoutojisseki.pdf>)

Water Resources Conservation

Business Activities in Water Stressed Regions

Understanding Water Risks at Manufacturing Bases

ITOCHU uses the WRI Aqueduct tool developed by the World Resources Institute (WRI) to identify areas with high water stress levels at manufacturing bases affiliated with our group. With this, we have quantified the water stress levels at all our manufacturing bases in Japan and overseas and have identified areas with a high level of water stress.

◦ Water withdrawal at sites identified as high risk in the Baseline Water Stress parameters (P99)

Overall Water Risk	Number of Sites
Low risk (<10%)	249
Low to medium risk (10-20%)	108
Medium to high risk (20-40%)	65
High risk (40-80%)	5
Extremely high risk (>80%)	5
Total	432

* As of March 2023

Water Related Business

ITOCHU considers our water related business to be a priority field. We are deploying seawater desalination business and water utility on a global basis. This is to contribute to solving water problems around the world.

List of Water-related Businesses

Business	Content of Initiatives
Seawater desalination business	We have invested in the seawater desalination project in Victoria, Australia. This is the project that has been providing the reliable water supply for Melbourne since 2012, and this plant is capable to meet approximately 30% of the water demand of Melbourne, Victoria.
Seawater desalination plant, and osmosis membrane manufacturing and sales	We have invested as the largest shareholder in the seawater desalination project in Barka, Northern Oman, with a daily production volume at 281,000 m ³ in collaboration with the Oman Power and Water Procurement Company (OPWP), a state-owned company of the Sultanate of Oman.
	We started delivering multiple seawater desalination plants to Saudi Arabia in the 1970s. We established a joint venture company called the Arabian Japanese Membrane Company, LLC with ACWA Holding of Saudi Arabia and Toyobo in August 2010. This company manufactures and sells reverse osmosis membrane elements for seawater desalination.

Examples of Initiatives

Stable Supply of Drinking Water Connecting to Life Largest Seawater Desalination Project in Oman

The water demand in Oman is expected to grow at approximate annual rate of 6% in coming years. The shortage of drinking water has been recognized as an issue to be resolved in the context of population increase as well as urbanization. The Barka Desalination Company in which we have a stake of as its largest shareholder entered into a seawater desalination agreement for a daily production volume of 281,000 m³ in Barka in the northern part of Oman for the stable supply of water in that country in March 2016. This project is a Public-Private Partnership with the Oman government to provide domestic water to the Barka region, which is a severely water-stressed region. We have constructed reverse osmosis membrane (RO membrane) seawater desalination plant and surrounding facilities. These will be operated for 20 years. The plant started commercial operation in June 2018. This is the largest seawater desalination project in Oman with total project cost of approximately 300 million dollars. Besides, we realized listing on the Muscat Stock Exchange in February 2022.

The water demand is arising because of the worldwide population growth, economic development and global warming. In response to this, we consider the water business to be a priority field. Accordingly, we are proactively expanding our activities into seawater desalination, water supply and drainage businesses. We will continue to promote business that contributes to the effective utilization of water resources in regions around the world in the future.



Seawater Desalination Plant

Environmental Costs Related to Water

Among the environmental conservation costs (FYE 2023) disclosed in the environmental accounting (P99), associated with water are as follows:

Cost for water pollution prevention, wastewater treatment cost, grey water production cost, monitoring measurement cost and management cost	10,175 thousand yen
Research and development expenses for water risk aversion (donation to Division of Climate System Research, Atmosphere and Ocean Research Institute, the University of Tokyo)	500 thousand yen

Collaboration with Outside Initiatives

Japan Business Federation (KEIDANREN) Working Group on Global Environment Strategy under the Committee on Environment and Safety

We are participating in the Working Group on Global Environment Strategy under the Committee on Environment and Safety, an environment and energy related committee of the Japan Business Federation (Keidanren). We are working to realize an environmental policy compatible with the economy (e.g., through promotion of voluntary action plans, and measures for global warming, waste and recycling and environmental risks including water management).

The Global Environment Committee of the Japan Foreign Trade Council

We are participating in the Global Environment Committee of the Japan Foreign Trade Council. We are striving to build a decarbonized society, construct a recycling-orientated society, and to support environmental related laws and regulations with other trading companies.

Participation in the CDP (Water Security)

ITOCHU is actively providing information on ESG initiatives to various stakeholders around the world. As part of these initiatives, we participate in the CDP, an NGO that is recognized worldwide as a global standard for corporate environmental information disclosure. Since FYE 2014, we have been responding to the CDP's climate change and water security questionnaires.

Conservation of Biodiversity

Policy and Basic Concept

ITOCHU's business activities depends upon the values and resources that biodiversity provides, which is a blessing provided by the intricate relationships between earth's myriad of organisms. In order to minimize our impacts on biodiversity, we are implementing two initiatives, which focus on our business activity impacts and our broader corporate citizenship impacts. For the former, our initiatives target our business sites and surrounding areas to ensure the conservation of local biodiversity and the sustainable use of forests, fisheries, and other commodities. For the latter, our initiatives target local communities in which we directly handle forest commodities aiming to make broader contributions for the local biodiversity as a part of our corporate citizenship commitments.

Given the global nature of our operations, it is a top management priority for us to address global environmental problems, including biodiversity issues across the globe. In order to promote conservation of biodiversity as indicated in our Environmental Policy, we have established the Biodiversity Policy. As such, we will contribute to building a sustainable society.

Biodiversity Policy

1. Biodiversity-friendly Environmental Management

We recognize that our business activities depend on the blessings of biodiversity and that they may affect the ecosystem. Accordingly, we shall promote environmental management that incorporates a wide range of environmental activities (such as interrelated climate change measures, resource circulation measures and biodiversity conservation) into our business activities to build a society in which we coexist with nature.

2. Understanding and Reducing the Impact of the Relationship between Business and Biodiversity

We are aiming for a net positive impact on biodiversity by understanding the relationship between our business activities not only in our group companies but across our entire group and biodiversity from a global perspective. We shall strive to avoid and minimize the impact our business activities have on biodiversity. At the same time, we shall promote the restoration of the ecosystem.

We have established a procurement policy to protect natural forests and forest resources concerning forest commodities (such as timber, natural rubber and palm oil). We shall promote information gathering to confirm there is zero deforestation due to production from protected areas designated by law.

3. Legal Compliance and Respect for Internationally Recognized Human Rights

We shall promote the conservation of biodiversity by complying with international treaties on biodiversity (e.g., the Convention on Biological Diversity) and the relevant national laws of each country.

We shall promote social contribution activities to protect endangered species in the areas in which we conduct business activities. This is in addition to not participating in transactions relating to endangered species designated by the Washington Convention (CITES)* with our business activities.

4. Enhancement of Partnerships and Conservation of Local Ecosystems

We shall look to share awareness of biodiversity by cooperating with industry groups, supply chains, NGOs and international organizations. We shall then make our biodiversity conservation efforts more effective.

We shall take into account conservation of biodiversity in the areas in which we conduct business activities. At the same time, we shall promote conservation of biodiversity from the perspective of creating communities that utilize natural resources to contribute to the realization of affluent and safe lives in local communities. We shall do this together with stakeholders such as local residents and NGOs in addition to governmental bodies.

5. Enhancement of Information Sharing and Dissemination

We shall promote understanding of biodiversity to local residents of the areas in which we conduct business activities in addition to our employees through awareness activities.

We shall contribute to raising awareness of biodiversity over the whole of society by continuously disclosing the details, targets and achievement status of our efforts.

* CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora

Fumihiko Kobayashi

Member of the Board Executive Vice President Chief Administrative Officer

Established in April 2022

Conservation of Biodiversity

Targets

ITOCHU conducts product certification and traceability for biodiversity conservation in products handled in businesses including the supply chain, and social contribution activities for biodiversity conservation in business-related areas. We consider forest resources (wood, wood products, paper raw materials and paper products, natural rubber, palm oil), dairy products, meat, marine products, and textile raw materials as important commodities for biodiversity and strive to disclose information and set goals for them.

Targets in Business Activities

Theme	Target	FYE 2023 Results	SDGs
Biodiversity Conservation Reduce the impact of ITOCHU's products and projects on biodiversity conservation across our supply chain	By 2025, conduct a follow-up ESG risk assessment for all investment projects subject to high biodiversity risk (e.g. hydropower, mines, ships), where biodiversity should be a material risk item assessed, and implement a plan for improvement if necessary.	<ul style="list-style-type: none"> Revised the ESG Checklist and created a scheme to understand the status of biodiversity risk in new business investment. Participated in the TNFD Forum and started investigating tools for analyzing risks and opportunities related to natural capital. 	
Sustainable Use of Natural Resources Implement initiatives to improve the sustainable use of natural resources in order to stably produce and supply commodities related to forestry, fishing, and agriculture in the future	<ul style="list-style-type: none"> Timber, Timber Products, Raw Materials for Papermaking, and Paper Products: Aim to achieve 100% coverage of our products that are either certified or confirmed to be under progressive management standards. Palm oil: Aim to switch all palm oil procured by ITOCHU to sustainable palm oil*1 by 2030. In particular, we aim to align our procurement to the NDPE principle*2. Fisheries raw materials handled by ITOCHU: Increase the MSC*3 /CoC*4 certified products to 15,000 tons per year within 5 years. 	<ul style="list-style-type: none"> The handling ratio of certified or highly controlled materials is 100% for pulp & wood, and 97% for chips. Palm oil has 100% traceability to mill level in FYE 2023. The volume of MSC/CoC in fisheries raw materials in FYE 2023 was 7,500 tons. 	

*1 Sustainable palm oil: palm oil supplied from supply chains compliant to RSPO and RSPO-equivalent standards.
 *2 NDPE (No Deforestation, No Peat, No Exploitation): zero deforestation, zero peatland development, zero exploitations
 *3 MSC (The Marine Stewardship Council): an international NPO established in 1997 to work on spreading sustainable fishing. It is headquartered in London, England.
 *4 CoC (Chain of Custody Certificate): A certification for processors and distributors to ensure the traceability of MSC certified marine products and other products in the management of processing and distribution processes specified by MSC.
 • For goals in other business activities (P153)

Targets in Business-related Areas

Targets	FYE 2023 Action Plans	FYE 2023 Results	FYE 2024 Action Plans	SDGs	
Implementation and follow-up on social contribution programs aimed at environmental conservation	1. Continue promotion of the mangrove planting project in collaboration with Uken Village of Amami Oshima Island.	<ol style="list-style-type: none"> Started mangrove planting on the uninhabited island of Edateku island in Uken Village, Amami Oshima. In addition, viviparous seeds of mangroves and Kandelia obovata in Uken Village were nurtured by all children of Aoyama Elementary School in Minato Ward, and donated to "the Tsukuba Botanical Garden at the National Museum of Nature and Science" and "the Botanical Garden of University of Tokyo (Koishikawa Botanical Garden)". We launched the Project for Protecting Green Turtles and the aim of this was also to foster the environmental conservation awareness of our employees. Since FYE 2017, we have continued to support a survey monitoring the number of green turtle spawns and a post-hatching survey conducted by the Ogasawara Marine Center of Everlasting Nature of Asia certified NPO that is working on marine conservation in the Asian region. The survey results suggest that the number of green turtles in Ogasawara is continuing to increase. In collaboration with Shiga Prefecture and the Shiga Prefectural Lake Biwa Museum, started a project to conserve the endangered species Ayumodoki (Parabotia curtus) and Zenitanago (Acheilognathus typus)- Research on establishing breeding techniques for rare freshwater fish-. 	<ol style="list-style-type: none"> Promoting the endangered species Ayumodoki (Parabotia curtus) and Zenitanago (Acheilognathus typus)- Research on establishing breeding techniques for rare freshwater fish- in collaboration with Shiga Prefecture and the Shiga Prefectural Lake Biwa Museum. Continue promotion of the mangrove planting project in collaboration with Uken Village of Amami Oshima Island Continue promotion of the project for protecting green turtles, an Endangered Species. Promote other environmental conservation projects. 	 	
	2. Promote the Project for Protecting Green Turtles, An Endangered Species.				
	3. Promote other environmental conservation projects.				

Conservation of Biodiversity

Structures and Systems

Assessment of the Impact of Biodiversity on New Businesses Investments Projects

For business investment projects that ITOCHU undertakes, the impact of the project on environment and society is evaluated in advance using the ESG Checklist for Investment — a checklist that must be submitted when entering into new business investment projects. For example, it includes assessing the impact on the natural environment and biodiversity such as the impact on ecosystems and the depletion of resources. If an impact is recognized, we conduct a risk analysis, and if necessary, we ask an external expert to conduct additional due diligence. The project is then only undertaken upon confirming that there are no problems in the results of those investigations.

Assessment of the Impact of Biodiversity by Product Type

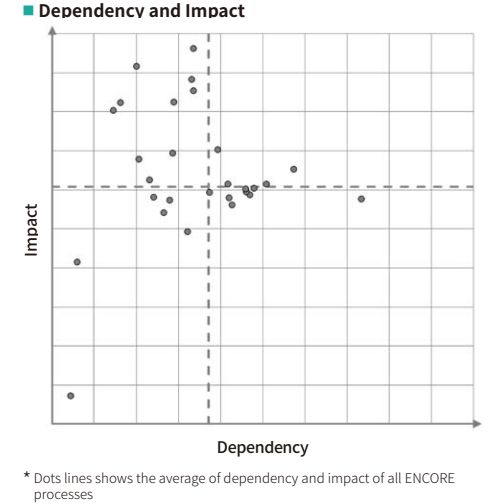
ITOCHU Corporation has introduced an environmental management system (EMS) based on ISO14001, and is aware of the impact our business activities can have on the environment and society. In order to prevent environmental and social risks, we use the LCA analysis method to conduct a “sustainability risk assessment” for each product we handle. This evaluation is a mechanism for evaluating the presence or absence of processes that have a negative impact on biodiversity in the value chain. We aim to prevent environmental pollution and promote environment-conserving businesses.

In addition, in order to understand the actual situation of suppliers, seven core subjects of ISO26000 including biodiversity are set as essential survey items, and each company and each company and the handling amount are based on certain guidelines such as high-risk countries, products handled, and amount handled. The relevant group companies select important suppliers, and sales representatives of each company, overseas subsidiaries, and representatives of group companies visit the suppliers and conduct hearings.

Assessing nature-related Dependencies and Impacts in Line with TNFD

ITOCHU participates in the TNFD Forum organized by the Task Force on Nature-related Financial Disclosures (TNFD). In FYE 2023, with reference to the TNFD beta framework (βV0.1-βV0.4), we conducted a primary survey to identify business activities that have a high degree of dependence and impact on biodiversity and natural capital in the Group’s business. Specifically, using the natural capital impact assessment tool (ENCORE) developed by the United Nations Environment Program and other organizations, we classified the activity processes carried out in the value chain, including upstream and downstream of our business, according to the processes specified by ENCORE. Then, we aggregated businesses with similar processes and created 28 groups. For each of the 28 groups, we calculated the score for each degree of dependence and impact while taking into account the degree of our involvement, etc., resulting in the “dependence/impact mapping” shown in the table right.

From now on, we plan to implement what is called the LEAP approach; “Evaluation of the degree of dependence and impact on identified business activities”, “Identification of important risks and opportunities based on the degree of dependence and impact”, “Formulation and monitoring of response policies”.



Conservation of Biodiversity

Initiatives

Biodiversity Conservation in Business Activities

Consideration for Biodiversity in the Forestry Products Business

TOCHU considers the prevention of deforestation by commodities related to forest protection (wood, wood products, raw materials for papermaking and paper products, natural rubber, palm oil) as a priority item. We are working to acquire product certifications such as FSC forest certification and to develop a traceability system to biodiversity conservation.

◦ Wood, Wood Products, Papermaking Raw Material, and Paper Products (P154)

Consideration for Biodiversity in Mine Closure

In our mineral resource development business, we have prepared Environment, Health, Safety (EHS) guidelines based on international standards*, which also stipulate the consideration of biodiversity in the closure of mines. Closure plans are designed not only for physical restoration but also for minimizing the impact and maximizing the benefits on the community by considering the local socio-economy and environment in cooperation with stakeholders. It will require to prepare funds, ensure the safety of the waterways constructed during the operation, prevent residual chemicals, and conserve ecosystems. Towards future mining closure, we have cooperated with project partners, assessed the environmental impact and formulate mine closure plans as stipulated by the regulations of countries where projects are located, and also put the system in place to check the implementation process of the plan by utilizing EHS check list.

* EHS Guidelines of the International Finance Corporation (IFC)

Biodiversity Conservation in Business-related Areas

ITOCHU is working with stakeholders to protect endangered wildlife.

Mangrove Planting Project in Collaboration with Uken Village of Amami Oshima Island, a World Heritage Site

Located on the west coast of Amami Oshima Island, Uken Village is striving to nurture and protect its abundant and irreplaceable natural environment, home to many different creatures, so that the next generation will always and proudly cherish it. ITOCHU has been supporting this initiative since 2021, and has started supporting reforestation activities in mangrove forests using *Kandelia obovata** seedlings raised by children in Uken Village. In 2022, we have started tree planting activities in Uken Village, Edateku Island. We shall contribute to biodiversity conservation through mangrove planting, and also aim to create CO₂ credits in the future.

* *Kandelia obovata* is a species of plant that comprises the mangrove forests found in Kagoshima and Okinawa prefectures.



Started mangrove restoration activities



Elementary school students planting the seedlings they have grown



Afforestation trial started on Edateku Island

Conservation of Biodiversity

Mangrove Ex-Situ Conservation Project

In addition to the in situ conservation of *Kandelia obovata* in Uken Village, Amami Oshima, ITOCHU has started Ex-Situ conservation in collaboration with the Tsukuba Botanical Garden of the National Museum of Nature and Science. In 2022, we donated the seedlings from viviparous seeds to all the children of the elementary school near our Tokyo head office, Minato Ward's Aoyama Elementary School.

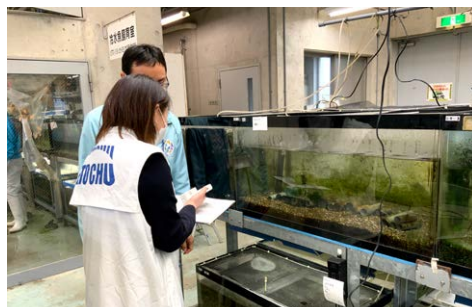


Ex-Situ conservation in the botanical garden cultivation nursery Exhibition at the aquatic plant greenhouse of the botanical garden

Collaborative Conservation Project for Rare Freshwater Fish with Shiga Prefecture and Shiga Prefectural Lake Biwa Museum

With the aim of preserving the environment in the area where ITOCHU was founded, ITOCHU has launched a project to conserve the endangered Ayumodoki and Zenita tanago (research on establishing breeding techniques for rare freshwater fish) in collaboration with Shiga Prefecture and the Shiga Prefectural Lake Biwa Museum. Lake Biwa is one of only about 20 ancient lakes in the world, and is home to more than 1,700 species of flora and fauna, including over 60 endemic species. It is also an important migratory site for waterfowl and is a registered wetland under the Ramsar Convention.

At the Lake Biwa Museum, we subculture rare freshwater fish such as Ayumodoki, which are endangered. At present, about 35 species of Japanese freshwater fish are being bred and preserved in captivity at the Conservation and Breeding Center installed at the Lake Biwa Museum and at the breeding facilities in the Aquatic Exhibition. Some populations are potentially extinct in their habitat. Continuing to preserve these species will serve as Ex-Situ conservation of rare freshwater fish in Japan, and is an important initiative in anticipation of their future return to the wild.



Investigation in the freshwater fish breeding room in the Lake Biwa Museum

Support for a Biodiversity Conservation Program in the Amazon

ITOCHU established its office in Brazil in 1957 and has expanded business in various sectors including forestry and mineral products. Those products benefit from the abundant water and biological resources of Brazil, including the Amazon. Since FYE 2017, with the aim of conserving the environment and biodiversity, we have been engaged in activities to save Amazon manatees, a species in danger of extinction, through support for the “Field Museum Initiative” a biodiversity conservation program in tropical forests in the Amazon promoted by the Wildlife Research Center of Kyoto University in collaboration with the National Institute of Amazonian Research in Brazil, and the construction of a research facility “Field Station”. This project is part of the SATREPS Project, a joint project between the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA). With the support of ITOCHU, over the 3 years from FYE 2017, the project aimed to release more than 9 manatees to the wild and more than 20 manatees to the semi-wild. In fact, 27 manatees have been released to the wild and 31 manatees to the semi-wild, and more than 100 local residents have been provided with learning opportunities.

◦ Support of Amazon Ecosystem Conservation Program (P164)



Amazon Rainforest: World's Largest Rainforest — Said to Supply One Third of the Oxygen on the Earth



The logo of Manatee Homecoming Project



Completed Field Station



The Amazonian Manatee is a Vulnerable Species

Conservation of Biodiversity

Project for Protecting Green Turtles, an Endangered Species

With the aim of conserving biodiversity, ITOCHU supports conservation activities for the green turtle, which is listed as an endangered species in the Ministry of the Environment Red Data Book, through the certified NPO Everlasting Nature (ELNA). ELNA was established in 1999 with the aim of conserving the marine life in Asia and the surrounding marine environment, and is an organization that has received certification as an NPO from Kanagawa Prefecture.

Thanks to ELNA's 24-hour conservation activities, the number of nesting sites of green turtles on the Ogasawara Islands is gradually increasing with repeated increases and decreases.

In addition, as the accommodation for volunteers staying in Chichijima for conservation activities was aging, we supported the construction of a new accommodation facility with improved living environment and convenience, and completed a unit house in May 2020.

• ELNA activity report (<https://www.elna.or.jp/rep-support-itochu2022/>)



Green Turtles, an Endangered Species
(Photographed on the Ogasawara Islands)



Employees participate in conservation activities



Donated a unit house for volunteer stay

Tropical Forest Regeneration and Ecosystem Conservation Activities on Borneo

Borneo is a tropical forest region spanning three countries — Malaysia, Indonesia and Brunei. Its area is approximately double that of Japan. This makes it the third largest island in the world. Borneo, which is called a treasure trove of biodiversity, is developing. This has led to damage to the tropical forest to the extent that conservation of the ecosystem is not possible with natural regeneration alone. The WWF, a worldwide nature protection organization, is collaborating with the Forest Department in the local Sabah State to conduct an activity to regenerate a forest of approximately 2,400 hectares. This is taking place in North Ulu Segama, Sabah State in Malaysia in the northeastern part of Borneo — a forest regeneration area that has continued to be protected by the ITOCHU Group since 2009. The ITOCHU Group has supported the regeneration of 967 hectares of this land. The afforestation work was completed in 2014 and all on-site work, including maintenance and management work, was finished in January 2016. This is the largest area in which afforestation activities are supported by a regular company. This land is also home to the endangered species of the orangutan. The regeneration of this forest will also lead to the protection of many creatures living here in addition to this orangutan.

• Activities to Restore the Tropical Rainforests and Conserve Borneo's Ecosystem (P164)



Afforestation with Tour Participants



Endangered Species of the Orangutan

Conservation of Biodiversity

Hunting World's Borneo Support Activity

Hunting World, a luxury brand deployed by ITOCHU, has been using a logo with the motif of a young elephant without its tusks since the foundation of the brand in 1965. While serving as a symbol of freedom and revival, it also represents the challenge of looking toward the future in terms of the protection of endangered species. It contains the founder's love and respect for nature. Hunting World has been supporting a biodiversity conservation activity being promoted by an NPO called the Borneo Conservation Trust (BCT) since 2008 to support the realization of coexistence with nature as called for by the founder. The brand plans and sells charity goods and then provides 1% of those proceeds to the BCT. This helps with the funds to purchase land for "Green Corridor Project*1" and the costs to protect Borneo elephants that have gone astray in plantations. The brand independently acquired the land in the "Green Corridor Project" zone with its assistance funds up to that point in the fall of 2011 to create the Hunting World Kyosei no Mori No.1 (Symbiotic Forest No.1 of Hunting World).

Furthermore, the brand has continued support activities and has now acquired the Hunting World Kyosei no Mori No.4 (Symbiotic Forest No.4 of Hunting World). In 2019, the brand started supporting "Grateful Repayment Project*2" promoted by BCT Japan, which supports BCT. These donations have also helped with the funds to establish the Borneo Elephant Sanctuary, a facility for protecting and temporarily rearing injured Borneo elephants and to pay for food to keep Borneo elephants protected alive.

*1 Green Corridor Project: This is an activity to conserve biodiversity. The land between forest protection zones and forest reserves are purchased back. Divided forests are then connected to create a movement route for animals.

*2 Grateful Repayment Project: This is an activity to protect and temporarily raise Borneo elephants that have lost their places of life.



Protecting Endangered Species of the Borneo Elephant



The facility of Borneo Elephant Sanctuary

Collaboration with Outside Initiatives

Initiative Participation (Activities Through Business and Industry Groups)

We participate in the Japan Business Federation (Keidanren). We support nature conservation projects in developing areas mainly in the Asia-Pacific region and in Japan through the Keidanren Committee on Nature Conservation that was established in 1992 when the United Nations Conference on Environment and Development (Earth Summit) was held in Rio de Janeiro in Brazil. The Keidanren Committee on Nature Conservation has been working to build an environment in which the business community strives to conserve nature. This has included exchanges with NGOs, the holding of seminars and symposia, and the announcement of the Declaration of Nature Conservation by Keidanren, the Declaration of Biodiversity by Keidanren and the action guidelines for them (revised in October 2018). In addition, we have declared our approval of the Keidanren's Biodiversity Initiative announced on June 11, 2020.

Cooperation with External Organizations toward Sustainable Palm Oil

ITOCHU joined the Roundtable on Sustainable Palm Oil (RSPO) in 2006. We have set a target of handling only RSPO certified palm oil or palm oil equivalent to that by 2030. We are working on the procurement and supply of sustainable palm oil through cooperation and collaboration with other member companies. We are also participating in the Sustainable Palm Oil Transparency Toolkit (SPOTT). This is a project by the Zoological Society of London (ZSL) that assesses major palm oil related companies in terms of more than 50 indicators based on data released to the public. We disclose information to stakeholders relating to the palm oil industry through two-way communication.

* Sustainable Procurement of Forest Resources - Palm Oil (P157)

Conservation of Biodiversity

Performance Data

Performance Data in Business Activities

- Performance Data Regarding Forest Certification and Legal Compliance, Sustainable Procurement Performance Data of Raw Materials for Papermaking (P155)
- Performance Data on Natural Rubber (P156)
- Performance Data Regarding Sustainable Palm Oil Procurement (P157)
- Performance Data on Sustainable Coffee Bean Procurement (P159)
- Performance Data on Traceability of Meat (P160)
- Performance Data Related to Certification of Marine Products (P161)
- Performance Data on Organic Cotton Procurement (P162)

Performance Data in Business Activities

Endangered Ayumodoki and Zenitanago Conservation Project (Research on establishment of rearing techniques for rare freshwater fish)

■ Research Data for Breeding by Artificial Insemination of Ayumodoki and Zenitanago at the Lake Biwa Museum

Subject	Activity	Unit		2022	2023	Targets after 5 years
Ayumodoki	Breeding for individual maturity	Full length (mm) (Average)	Target	80	80	Targets by 2024: Emergence of fertile mature individuals (10 individuals) and establishment of breeding methods for maturity*4
			Achievement	—	89	
		Degree of obesity*1 (Average)	Target	—	1.8	
			Achievement	1.83	1.79	
	Mature population	Target	—	10		
		Achievement	0	58		
Breeding by artificial insemination	Cumulative number of breeding fry	Target	100	200	Cumulative number of breeding fry: 500	
		Achievement	0	0		
	Average length after 6 months (mm)	Target	30	30		
		Achievement	0	0		
Zenitanago	Breeding by artificial insemination	Number of parent fish	Target	50	100	Establishment of artificial insemination technology (Hatching rate, Floating rate about 80%)
			Achievement	62	Investigating	
		Hatching rate*2	Target	50	50	
			Achievement	27.5	Investigating	
		Floating rate*3	Target	50	50	
			Achievement	—	3.8	

*1 Value obtained by dividing body weight by body length cubed and multiplying by 100. A measure of maturity.
 *2 The value obtained by dividing the artificially inseminated eggs from the hatched eggs (percentage of individuals hatched normally among the artificially inseminated eggs).
 *3 Value obtained by dividing the number of larvae that hatched from the larvae that surfaced (swimmed) in spring (a value that indicates how many larvae have learned to swim over the winter).
 *4 For the time being, the goal is to produce 10 breeding mature individuals and to establish breeding methods for maturity.

Conservation Project for Endangered Green Turtles

■ Project Data Monitoring the Spawning and Post-hatching Mortality of Green Turtles in the Ogasawara Islands

	Unit		2018	2019	2020	2021	2022	2022 Compared to the Previous Year	2022 Compared to 2000	Notes	
Survey Scale	Coast	Chichijima Islands	30	30	30	30	30	—			
		Hahajima Islands	10	10	10	10	10	—			
		Mukojima Islands	10	10	10	10	—	—			
	Total Number of Surveys Conducted	Times	280	168	172	202	182	90%			
Total Survey Personnel	Person	1,078	732	692	934	957	102%				
Results	Nest	Chichijima Islands	1,800	1,500	1,700	1,200	1,700	142%	378%	This is a significant increase from last year, but in terms of long-term secular change, 2,000 spawning nests around 2008 to 2016 has not been seen in recent years.	
		Hahajima Islands	500	600	400	330	300	91%			
		Mukojima Islands	30	40	28	33	—	—			
	Nest	Number of Surveyed Post-hatching Nests (Conducted only on Chichijima)	1,200	1,000	1,200	930	1,120	120%			
		Baby Turtles Returning to the Sea (Conjecture)	Head	55,000	43,700	55,000	44,000	56,000	127%		
		Escape Rate (Number of Escaped Turtles / Number of Eggs)	%	25	32	36	29	34	117%		
Reviews	—	The Increasing Trend of Green Turtles in Ogasawara (Conjecture)	Increasing trend with repeated increases and decreases								
	—	Trend in Escape Rate	Good with repeated increases and decreases								

* Figures are approximate due to unpublished data.

Conservation of Biodiversity

Support for a Biodiversity Conservation Program in the Amazon

Amazonian Manatee Reintroduction Performance Indicators

Theme	Activities	FYE 2017	FYE 2018	FYE 2019	FYE 2020	FYE 2021	FYE 2022
Return to semi-captive environment	Release of manatees into a semi-captive lake (Manacapuru) or a preserve established in a river (Rio Cuieiras).	<ul style="list-style-type: none"> Began meeting for setting up a lake in Manacapuru. Conducted health checks of 12 manatees. Released 9 manatees into the lake to keep them in a semi-wild state. 	<ul style="list-style-type: none"> Conducted health checks of 24 manatees. Released 12 manatees into the lake to keep them in a semi-wild state 	<ul style="list-style-type: none"> Released 14 manatees into the lake to keep them in a semi-wild state. 	<ul style="list-style-type: none"> No result 	<ul style="list-style-type: none"> No result 	<ul style="list-style-type: none"> No result
Return to the wild	<ul style="list-style-type: none"> Release of manatees into the Amazon River. 	<ul style="list-style-type: none"> Conducted a health check on a manatee that was recaptured after being released into the Amazon River and confirmed that both the length of its body and its weight had increased and that the manatee had adapted to the natural environment after being released into the river. Released 5 manatees into the Amazon River. 	<ul style="list-style-type: none"> Released 10 manatees into the Amazon River. Recaptured one manatee that had been released into the Amazon River and conducted health checks on it. Confirmed through the health checks that the recaptured manatee had grown in both body length and weight and that it had adapted to the natural environment smoothly after its release into the River. 	<ul style="list-style-type: none"> Released 12 manatees into the Amazon River. 	<ul style="list-style-type: none"> Releasing 18 manatees into the Amazon River, installing VHF transmitters and monitoring activities. All the tracked individuals were confirmed to have successfully adapted to the wild. The body weight and body length of the recaptured individuals were also increased. 	<ul style="list-style-type: none"> Due to the COVID-19, new releases were not possible, and monitoring of manatee releases had to be suspended for months. 	<ul style="list-style-type: none"> 13 manatees were released into the Amazon River, and 5 of them were equipped with VHF transmitters for behavior monitoring. Interaction between released and wild individuals and pregnancy of released individuals kept for 16 years were confirmed. The success of the wild adaptation was shown.
Providing environmental training for local residents and raising their environmental awareness	Raising awareness of biodiversity conservation among local residents through a project for returning manatees to the wild.	<ul style="list-style-type: none"> Asked more than 200 local residents to join us when we released the manatees. Through the protection of manatees, we raised their awareness of the importance of preserving biodiversity. Encouraged local fishermen to understand the importance of protecting manatees and had two of them participate in this project. 	<ul style="list-style-type: none"> Raised awareness for biodiversity preservation through an environmental education program and a ceremony for releasing manatees at which 301 and 370 local residents participated, respectively. Two local fishermen took part in this project, continuing their practice from the previous year. 	<ul style="list-style-type: none"> Raised awareness for biodiversity preservation through an environmental education program and a ceremony for releasing manatees at which 350 and 500 local residents participated, respectively. Two local fishermen took part in this project, continuing their practice from the previous year. 	<ul style="list-style-type: none"> Created a mobile exhibition to convey the importance of manatee restoration to the wild. Employment promotion for hunters who used to be manatee poachers. 	<ul style="list-style-type: none"> Employment promotion for hunters who used to be manatee poachers. 	<ul style="list-style-type: none"> Raising awareness of biodiversity conservation among local residents. Implement environmental education programs for local residents with thorough infection control measures. Distributing 500 T-shirts bearing the ITOCHU logo to participants and participants.

Clean-tech Business

Basic Policy and Strategy

ITOCHE has established enhancing contribution and engagement with the SDGs including climate change as one of our basic policies in our Brand-new Deal 2023 medium-term management plan. We will aim for offset zero that also takes into account the amount of greenhouse gas emissions we contribute to reducing through clean-tech business by 2040. This target is 10 years ahead of the Japanese government's target. We will achieve this by being the first in the industry to realize a decarbonized society.

Climate change and other environmental risks are also clean-tech business opportunities at the same time. We will adopt cutting-edge technologies from a medium- to long-term perspective. We will also take the lead in promoting concrete measures which are expected to lead to sustainable growth in the future and which will contribute to a transformation in social structure toward a decarbonized and recycling-oriented society.

Targets

Aim for offset zero* of our greenhouse gas emissions by 2040. Achieve this by proactively promoting business that contributes to a reduction in the amount of greenhouse gas emissions (such as clean-tech business).

* Offset zero: When the amount of greenhouse gas emissions we contribute to reducing exceeds our greenhouse gas emissions

Individual Targets for Each Business Segment

Business Segment	Individual Targets
Renewable Energy	<ul style="list-style-type: none"> • Increase the ratio of renewable energy capacity within our power generation portfolio to over 20% by FYE2031. • Invested in renewable energy generation of approximately 1,600 MW such as in Cotton Plains, Prairie Switch, Texas in the U.S. (wind and solar power) and in Sarulla in Indonesia (geothermal power). • We are currently newly developing renewable energy business of approximately 2,000 MW to achieve a renewable energy ratio of over 20%.
Fuel Ammonia	<ul style="list-style-type: none"> • Establish a value chain of fuel ammonia through integrated development including development, ownership and operation of ammonia-fueled ships, development of fuel supply bases, and procurement of fuel ammonia. • After 2026, contribute to the decarbonization of international shipping by promoting the spread of ammonia-fueled ships and their social implementation.
Energy Storage Systems (ESS)	<ul style="list-style-type: none"> • Aim for a cumulative energy storage of over 5 GWh by FYE2031.
Water Infrastructure	<ul style="list-style-type: none"> • Expand our achievements in Europe and Australia to other regions. Continue to build up excellent assets.
Waste Management Project	<ul style="list-style-type: none"> • Expand our achievements in Europe to the Middle East and other regions in Asia. Continue to build up excellent assets.

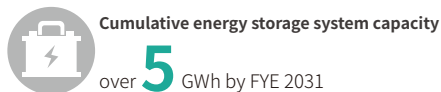
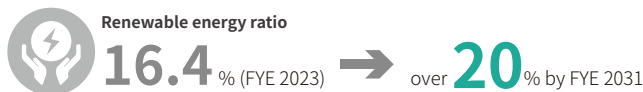
Initiatives

Top Management Involvement: Decarbonization and Carbon Neutral Task Force

We have stated a strong commitment to being the first in the industry to realize a decarbonized society by enhancing contribution and engagement with the SDGs in our Brand-new Deal 2023 medium-term management plan. Based on this commitment, we began the full-scale operation of a decarbonization and carbon neutral task force across companies under the control of President & Chief Operating Officer in April 2021. This task force reports on the details of progress made on initiatives in each company every other week. Its field is not limited to hydrogen and ammonia projects; it also discusses other decarbonization projects (such as emissions trading and Carbon dioxide Capture, Utilization and Storage (CCUS)) which will contribute to a reduction in greenhouse gas emissions and whose market is expected to grow.

Introduction to Individual Businesses

1. Renewable Energy (P82-P84)
2. Fuel Ammonia (P85)
3. Hydrogen Related Business (P86-87)
4. Energy Storage Systems (ESS) (P87-P88)
5. Water Infrastructure (P89)
6. Waste Management Project (P89)
7. CCUS · Carbon Fixation (P90)
8. Green Buildings (P90)
9. Collaboration with Outside Initiatives (P90-91)

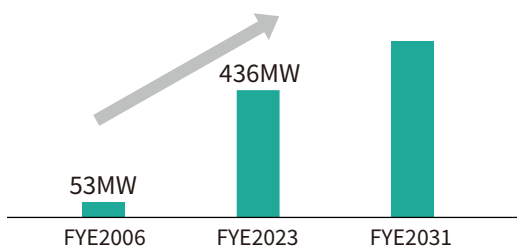


Clean-tech Business

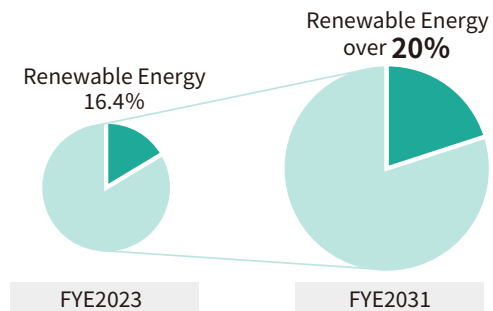
1. Renewable Energy

ITOCHU globally enhances carbon neutral related businesses such as renewable power, hydrogen and ammonia. We aim to make profit growth not only by focusing on investments, but also by providing multi-angled functions such as engineering, operation and maintenance, etc.

■ Renewable Energy Generation (Equity Interest Basis)



■ Target for Renewable Energy Ratio of Total Generation



■ Breakdown of ITOCHU's Total Generation and Breakdown Target for FYE2031

	FYE2020	FYE2021	FYE2022	FYE2023	FYE2023	FYE2031 (Target)
	Generation Capacity on Equity Interest Basis (MW)	Generation Capacity on Equity Interest Basis (MW)	Generation Capacity on Equity Interest Basis (MW)	Generation Capacity on Equity Interest Basis (MW)	Ratio (%)	Ratio (%)
Wind	185	179	122	164	16.40%	>20%
Solar/PV Power	83	80	112	132		
Geothermal	83	83	83	83		
Biomass	20	33	57	57		
Renewable Energy (Total)	369	375	373	436		
Natural Gas	1,621	1,258	1,258	1,258	83.60%	<80%
Oil-fired Power	315	315	315	315		
Coal-fired Power	640	640	640	640		
Thermal Power (Total)	2,576	2,213	2,213	2,213		
Grand Total	2,945	2,588	2,586	2,648	100%	100%

A list of our renewable energy-related businesses is in P92. We have announced a policy not to develop any new coal-fired power generation business*.

* Policy statement regarding our involvement in coal-fired power generation business (<https://www.itochu.co.jp/en/csr/news/2019/190214.html>)

Clean-tech Business

Renewable Energy Highlights

Wind Power

ITOCHU has continued invested in wind power generation (onshore and offshore) from the late 1990s. Currently, ITOCHU has interests in five power plants in Japan the United States, and Germany.

Butendiek Offshore Wind Farm in the North Sea of Germany

In response to the renewable market growth in Europe, we jointly own an offshore wind generation project (288MW) located on the German North Sea coast with the CITIC Group with whom we establish a strategic alliance. The wind farm supplies power to approximately 370,000 standard German households, contributing to the transition to a decarbonized society.



The Butendiek Offshore Wind Farm

Aomori Mutsu Ogawara Onshore Wind Farm

ITOCHU is planning to build an onshore wind farm (maximum output capacity: 64.5 MW) in a suitable site with favorable wind conditions in Rokkasho-mura, Kamikita-gun in Aomori Prefecture as a joint project with Hitachi Zosen Corporation. We are aiming to start operating it during FYE 2026. We expect this wind farm to generate approximately 166 million kWh of power a year. That is equivalent to the annual power consumption of approximately 46,000 ordinary Japan households.

Utility Scale Solar Projects

Following on the start of the commercial operation of a mega-solar power plant in Ehime in 2015, ITOCHU started operating mega-solar power plants in Oita in 2016, Okayama in 2017 and Saga in 2018. This means we now operate four mega-solar power plants in Japan (total power generation output: approximately 130 MW). The knowledge and experience we have gained through operating these power plants is contributing to the expansion of our renewable energy business. We will continue to operate these power plants stably.



Oita-Hiyoshibaru Solar Power Plant

Distributed Solar Power Supply Business

We operate one of the largest on-site distributed power plants in Japan mainly involving the roofs of supermarkets and logistics facilities through our capital and business alliance partner of i GRID SOLUTIONS, Inc. (i GRID). i GRID is involved in the on-site solar power generation business. The company installs self-consumption solar power generation systems at zero initial investment by customers. It then directly supplies power at low cost to facilities over a long period of time. Furthermore, in addition to solar power generation, it integrates and controls distributed power supplies such as storage batteries and electric vehicles with a supply and demand adjustment platform using AI. This allows it to offer solutions for the realization of green transformation in regions centered on customer facilities.



i GRID SOLUTIONS On-site Distributed Power Supply

Furthermore, we have entered into a capital and business alliance with Clean Energy Connect Co., Ltd. (CEC) for initiatives to contribute to clean energy by effectively utilizing land in Japan. We have been jointly promoting this business since 2021. CEC is involved in the off-site solar power business. The company develops and owns multiple small and medium-sized solar power plants by utilizing idle land in Japan. It then bundles together green power to supply electricity and environmental value over the long-term to customers such as office buildings in the center of cities. Through CEC, ITOCHU will introduce photovoltaic power plants with additional approx. 5,000 locations in Japan with a cumulative total output of 500 MW by FYE2026, aiming to be one of the largest corporate PPA operators in Japan.



Clean Energy Connect Off-site Distributed Power Supply

Clean-tech Business

Solar Panel Recycling Business

ITOCHU undertook a capital increase through a third-party allotment from ROSI SAS. – a company engaged in the reuse and develops and owns advanced solar panel recycling technologies, and ITOCHU has entered into these alliances with the aim of promoting and expanding the solar panel recycling business.

In recent years, there is widespread global concern that mass disposal of solar panels that have reached the end of the product lives will occur in the near future. Establishing an appropriate recycling chain for these waste solar panels represents a major challenge for the future, in order to introduce sustainable renewable energy solutions for creating a decarbonized society.

We will contribute to the establishment of a recycling chain for solar panels by combining photovoltaic power generation-related business know-how and networks developed by us so far with ROSI's advanced and highly economical recycling technologies.

Geothermal Power

ITOCHU participates in Sarulla Geothermal Power Project in Indonesia, which is one of the largest size in geothermal sector. The project entered into construction phase after signing a 30-year power purchase agreement with Indonesia's state-owned electricity company in 2013. The first and second units were completed and commenced commercial operation in 2017, followed by the third unit in 2018. Indonesia is actively promoting renewable energy, and geothermal is positioned as an important part of it. Among renewable energy, geothermal energy is able to provide stable power supply to the electricity grid through a whole day, not dependent on the natural conditions such as wind or sunlight. ITOCHU is proceeding with decarbonization through stable power supply in line with energy mixes and policies of each countries or areas.

Biomass Power

The Ichihara Biomass Power Plant (power generation output: 49.9 MW) in which ITOCHU is participating started commercial operation in December 2020. We expect this power plant to generate approximately 350 million kWh of power a year. That is equivalent to the annual power consumption of approximately 120,000 ordinary Japan households. In addition, we decided to build biomass power plants (power generation output of each: 50 MW) in Hyuga in Miyazaki Prefecture in April 2021 and in Tahara in Aichi Prefecture in November 2021.



Ichihara Biomass Power Plant

Biomass Fuel Related Business

ITOCHU is supplying biomass fuel to power generation operators in Japan in addition to our own company by leveraging our biomass fuel suppliers portfolio. We are working to improve the ratio of renewable energy in power generation projects in Japan through the supply of biomass fuel.



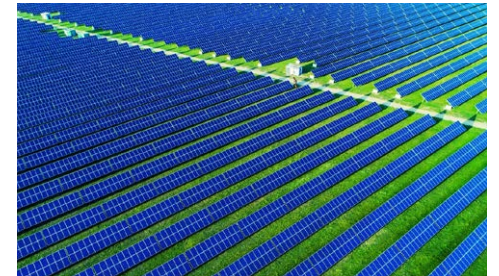
Biomass Fuel (Wood Pellets)

Operation and Maintenance for Renewable Power in North America

ITOCHU provides operation and maintenance service as well as asset management for solar and wind generation in the US principally through our subsidiary NAES Corporation. It serves approximately as many as 1,500 sites throughout the US utilizing its remote monitoring system.

Renewable Power Developments in North America

Tyr Energy Development Renewables, LLC, dedicated in greenfield renewable energy development in the United States, was established in 2022 and is currently developing renewable energy projects of approximately 2,000 MW. TED has full suite function of greenfield development including land acquisition, permitting, interconnection process, PPA origination, engineering and finance. The U.S. renewable energy market is expected to grow significantly over the next 20 years. To capture the growth, we continue to enhance the development activities.



Utility Scale Solar Projects developed in U.S.A.

Clean-tech Business

2. Fuel Ammonia

With international momentum towards the transition to a decarbonized society, the International Maritime Organization (IMO) has set a greenhouse gas (GHG) emissions reduction strategy of 40% efficiency improvement from 2008 levels by 2030, 50% total volume reduction from 2008 levels by 2050, and to phase-out of GHG emissions (zero emissions) as early as possible during this century (currently under revision as of April 2023). In order to achieve these goals, early development and social implementation of zero-emission ships are expected, and ammonia is attracting attention in various fields as a candidate alternative fuel. In addition, a stable supply of ammonia fuel for marine use and the development of supply bases are indispensable elements for the concrete development of ships that use ammonia as their main fuel.

Development of Ammonia Fuel Ship

ITOCHU Corporation has agreed with Nihon Shipyard Co., Ltd., MAN Energy Solutions, Mitsui E&S Machinery Co., Ltd. (Currently, Mitsui E&S Co., Ltd.), ClassNK, ITOCHU ENEX Co. Ltd. on jointly developing oceangoing commercial ships equipped with a main engine using ammonia as its main fuel.

In October 2021, we applied for “the Green Innovation Fund Project / Development Project for Next-Generation Ships / Development of an Ammonia Fueled Ship Project” publicly offered by the New Energy and Industrial Technology Development Organization (NEDO), together with four other companies, including Kawasaki Kisen Kaisha, Ltd., NS United Kaiun Kaisha, Ltd., Nihon Shipyard Co., Ltd. and Mitsui E&S Machinery Co., Ltd. (Currently, Mitsui E&S Co., Ltd.), and successfully selected. In November 2022, We and the said four companies obtained Approval in Principle for the basic design of an ammonia-fueled ship (200,000 deadweight ton type bulk carrier). This project aims to take the lead in the development of propulsion systems and hulls, as well as the ownership and operation of ammonia-fueled ships, as early as possible before 2028.

Development of Supply Chain of Ammonia Bunkering

ITOCHU Corporation and ITOCHU Enex have agreed the joint development of an ammonia fuel supply (bunkering) base in Singapore, the world’s largest supplier of marine fuel, among six companies including TotalEnergies Marine Fuels Pte. Ltd, Pavilion Energy Singapore Pte. Ltd, Vopak Terminals Singapore Pte. Ltd. and Mitsui O.S.K. Lines Ltd. In April 2022, ITOCHU together with the companies signed a memorandum of understanding with the Maritime and Port Authority of Singapore to promote the development of an ammonia fuel supply (bunkering) base in Singapore, and has been accelerating the development of a safe fuel supply system and the development of ammonia bunkering vessels.

Since June 2021, ITOCHU has continued to examine and verify common issues related to the use of ammonia as marine fuel through the “Joint Study” a framework established with 34 companies and organizations to promote the use of ammonia as marine fuel. In April 2022, we launched the “Joint Study Framework for Ammonia Bunkering Safety” with 16 companies and organizations as a framework to share issues and knowledge on safety and guidelines for ammonia bunkering among related parties, and are expanding the activities.

Each of the above joint developments and frameworks is positioned as part of an “Integrated Project” of ITOCHU and partner companies that includes not only the development of ammonia fuel ships and the establishment of an ammonia fuel supply base in Singapore, but also the ownership and operation of these ships, the procurement of ammonia fuel for marine use, and the establishment of a global supply chain. We will work with domestic and overseas companies and relevant ministries and agencies to contribute to the reduction of GHG emissions from international shipping.

Project to Manufacture and Sell Clean Ammonia in Canada, Aiming to Realize a Decarbonized Society

ITOCHU Corporation, Petroliaam Nasional Berhad group, a Malaysian national oil company, and Inter Pipeline Ltd., a major infrastructure regional enterprise, have been conducting detailed studies of a project to manufacture and sell clean ammonia in Alberta, Canada.

ITOCHU Corporation will pursue the creation of a decarbonized society by establishing manufacturing sites and a supply chain for clean ammonia, which is expected to reduce greenhouse gas emissions from conventional fossil fuel derived ammonia.



Clean-tech Business

3. Hydrogen Related Business

In December 2020, Japan announced the “Green Growth Strategy Towards 2050 Carbon Neutrality,” and as part of that strategy, hydrogen is expected to contribute to the decarbonization of various fields as a key technology for carbon neutrality with promising applications across a wide range of fields, such as power generation, industrial usage, transportation, etc.

In light of this major trend, ITOCHU’s wide-ranging networks focused on consumer-related sectors will be used to demonstrate the comprehensive capabilities of the ITOCHU Group and promote the development of the hydrogen market.

Strategic Collaboration to Build a Hydrogen Value Chain

ITOCHU, Air Liquide Japan G.K. and ITOCHU ENEX Co., Ltd. will jointly examine hydrogen production/supply and hydrogen station business focused on major metropolitan areas in Japan. The aim of this is to cultivate the hydrogen market for mobility and industry.

Starting with the Hydrogen Refueling Station (hereinafter “HRS”) in Motomiya-city, Fukushima Prefecture, which is scheduled to start operation in the first half of 2024 as Japan’s first HRS, we will continue to find out more HRS opportunities with similar concept that are expected to be rolled out along with highway and to attract usage of larger scale fuel cell commercial vehicles.

We will demonstrate our comprehensive strengths as a group by making full use of our extensive network focused on the consumer goods industry field to contribute to the growth of the hydrogen market.



Hydrogen Station (Kawasaki Hydrogen Station of Air Liquide Japan G.K.)

Business Model Development of a Local Hydrogen Production for Local Consumption

ITOCHU Corporation has been progressing the joint operationalization research on a hydrogen business based on “the local production for local consumption model” in northern Kyushu with our important customers of Nippon Coke & Engineering Company, Limited (hereinafter “Nippon Coke”) and Compagnie Maritime Belge B.V. (hereinafter, “CMB”). ITOCHU has been supplying raw materials to Nippon Coke, and also has a lot of newly built ship business with CMB which is the largest maritime group in Belgium, both for many years.

Featuring both the hydrogen byproduct of Nippon Coke and the hydrogen engine of CMB, this project aims to create and expand both supply of and demand for hydrogen, with the goal of realizing actually operating hydrogen supply chains based on “the local production for local consumption model”.

Furthermore, by actively deploying this business model in other regions as well, ITOCHU will realize the social implementation of hydrogen on a global scale at the possible earliest time, for enhancing our contribution to and engagement with the SDGs.



Clean-tech Business

Hydrogen Business Partnership with Nel

ITOCHU Corporation has concluded a Memorandum of Understanding with Nel ASA (headquartered in Oslo, Norway), to create a strategic partnership in the hydrogen industry and the both companies are jointly developing hydrogen business. Nel is the world's largest manufacturer of electrolysers, which are essential for green hydrogen production, in terms of production capacity, size of systems, number of systems delivered and revenues.

Under the MOU, Nel and ITOCHU will jointly explore hydrogen business opportunities, develop tangible projects and, as a future goal, aim to expand the hydrogen business worldwide by establishing a production, transportation and distribution hydrogen value chain together with potential partners in each area of the value chain. Nel and ITOCHU will promote this initiative for the commercial success utilizing Nel's nearly 100 years of experience in the hydrogen industry and ITOCHU's international network, based on their shared belief that hydrogen is crucial for decarbonizing industry. In addition, the parties agreed to evaluate and explore each project and business opportunity together with Osaka Gas Co., Ltd., a leading Japanese utility with experience in gas handling and hydrogen technology.

ITOCHU contributes to a decarbonized society through this collaboration creating synergies with ITOCHU's existing decarbonization business, such as hydrogen and ammonia.



4. Energy Storage Systems (ESS)

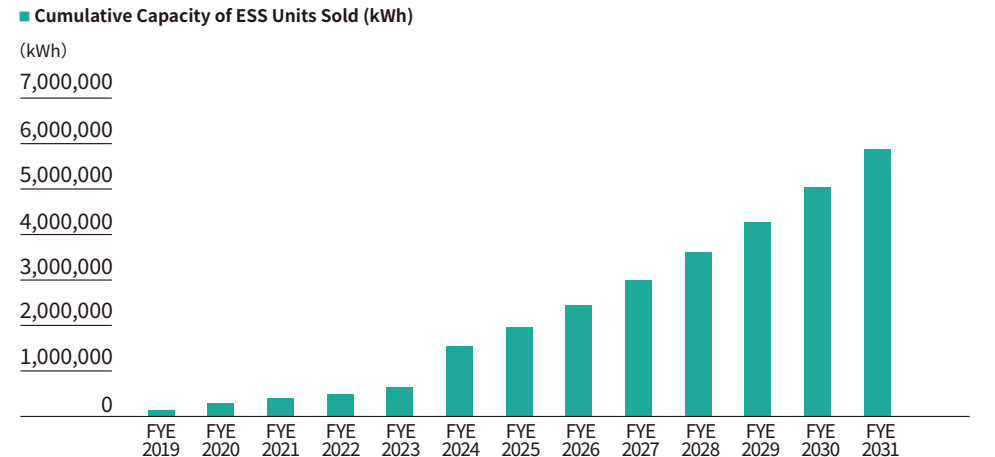
ITOCHU aims to promote decarbonization and reduce environmental footprint by selling energy storage systems (ESS) that enhance and optimize the sustainable supply of renewable energy. As a demonstration of our commitment, we have set a clear sales target for ESS of 50 billion JPY and a cumulative energy storage exceeding 5GWh by FYE 2031.

Moving forward, ITOCHU will strengthen our global battery procurement and dealer network to further deploy household storage batteries. At the same time, we will look to develop AI-equipped energy storage systems and to then launch them onto the market (especially, we assume, the U.S. and Australian markets which are expected to grow in the future) with capital and business alliance partners overseas. We will then aim for the development and social implementation of large energy storage systems that use reused batteries for commercial and industrial and grid related applications. Moreover, we will accelerate efforts to recycle waste batteries generated by electric vehicles (EVs) or energy storage systems and efforts relating to the traceability of those. This will allow us to develop our recycling-orientated business and to contribute to a further improvement in corporate value.

Sales and Cumulative Energy Capacity of Our ESS products

In cooperation with NF Blossom Technologies, Inc.*, ITOCHU developed Smart Star ESS series, which have been sold for approximately 54,000 units as of March 2023. Additionally, we have started the installation of ESS system "Bluestorage" for C&I and grid related applications in various sites.

* NF Blossom Technologies, Inc. is a joint venture by NF Holdings Corporation and ITOCHU launched in February 2020.



Clean-tech Business

Other Initiatives

The Sale of Next-generation Residential ESS Products Using AI Technology

ITOCHU Corporation has entered into a capital and business alliance with Moixa Energy Holdings Ltd. in the United Kingdom, which develops “GridShare,” software for optimal charge/discharge control of power storage systems.

By incorporating GridShare into the Smart Star series, in addition to the original features that demonstrate its strengths during power outages, AI analyzes and learns weather forecasts, user power demand and power generation forecasts, etc., and performs optimal charge and discharge control of the storage system. This enables efficient operation of solar power generation and power storage systems.

In addition, “Smart Star 3”, which went on sale in May 2021, is equipped with the world’s first environmental value point conversion and EV charging function through a home power storage system.



External view of the Smart Star L



External View of the Smart Star 3

Demand Response Using GridShare

Through Gridshare Japan Co., Ltd., a wholly owned subsidiary of ITOCHU Corporation, users who provide optimal remote control services are bundled together and demand response is implemented to implement control according to the power supply and demand situation. In FYE 2023, a maximum of approximately 17,000 units and approximately 51 MW/167 MWh of participants were solicited. Even if each power storage system is small, it is integrated and controlled as if it were a single large power storage system and functioned as a virtual power plant (VPP). This initiative is expected to spread renewable energy, respond to the tight supply and demand of electricity, and contribute to the earnings of retail electricity companies, and we will continue to promote it in the future.

Equity Participation in TRENDE Inc. and Future Collaboration

With the mission of “lighting up the future,” TRENDE Co., Ltd. develops residential solar power retail services (Hotto Denki, Hidamari Denki, Jibun Denryoku) with zero initial cost, and promotes the efficiency of renewable energy. We are working on technological development and social implementation of P2P power trading*1 that contributes to its practical use and spread.

ITOCHU Corporation and TRENDE aim to expand environmental value transactions utilizing the non-fossil value*2 of renewable energy and realize P2P electricity transactions between customers.

*1 P2P power trading: Abbreviation for Peer to Peer. Refers to direct transactions of electricity between electricity consumers and power generation facility owners.

*2 Non-fossil value: Environmental value given to power sources that do not use fossil fuels for power generation. A trading market was established in May 2018 to promote the introduction of renewable energy.

Capital and Business Tie-up with Shenzhen Pandpower in China for Automotive Battery Reuse and Recycling Business

ITOCHU undertook a capital increase through a third-party allotment from Shenzhen Pandpower Co., Ltd. – a company engaged in the automotive battery reuse and recycling business in China. We have started the reuse business to convert automotive batteries to stationary storage battery systems as part of our lithium-ion rechargeable battery business efforts.

There is a major trend for the electrification of automobiles worldwide. Against this background, it is expected that batteries equipped to the electric vehicles sold will appear on the market in large quantities in the future. Accordingly, the effective utilization of used batteries has become a major issue.

Utilizing the knowledge of the stationary energy storage system business that we have cultivated so far, we have developed a stationary energy storage system “Bluestorage” for business, industry, and grid use that utilizes reused batteries. We will provide competitive energy services to new market areas, such as adjustment valves for power fluctuations and micro-grids in areas with depopulated power.

Establishment of IBeeT Corporation – a Joint Venture to Offer a Subscription Service for Distributed Power Sources

We have established a joint venture called IBeeT Co., Ltd. together with Tokyo Century Corporation to provide distributed power sources and related equipment subscription services that contribute to the realization of a decarbonized society.

IBeeT offers the Smart Star series in a subscription format to meet the increasing demand for home energy storage systems and promote market introduction.

The company also considering providing subscription services such as commercial and industrial power storage systems, solar panels, EV bodies and related equipment, etc. in the future. IBeeT will aim to build an efficient distributed power source platform at an early stage. For example, it will mutually accommodate surplus power produced from the distributed power sources it owns through this service by using “GridShare”.

Clean-tech Business

5. Water Infrastructure

ITOCHU identifies water-related businesses as a strategic priority. This is due to our understanding that such demands will increase given global climate change trends projecting drastic changes in rainfall as well as changes in demography especially in emerging economies. We globally engage in water-related businesses such as seawater desalination and water utility, aiming to contribute solutions to the increasing water problems around the world.

Seawater Desalination

We have invested in a seawater desalination project in Victoria, Australia. This is the project that has been providing the reliable water supply for Melbourne since 2012, and this plant is capable to meet approximately 30% of the water need of Melbourne, Victoria. We have invested as the largest shareholder in a seawater desalination project with the Oman Power and Water Procurement Company (OPWP), a government entity of the Sultanate of Oman. OPWP is promoting this project at Barka, in the northern area of the country.

Other Initiatives

■ The Development and Sales of Seawater Desalination Plants and Reverse Osmosis Membranes Stable Supply of Life-sustaining Water

● Seawater Desalination Business Largest in Oman (P71)

6. Waste Management Project

All over the world, 2.0 billion tons of municipal solid waste (equivalent to 5,400 times of Tokyo Dome) are discharged annually. At least one-third of this waste is not treated with a proper way. As a result, decomposing gases emitted from waste cause fires, and the toxic substances that flow from waste mix with lakes, rivers, and groundwater, having a negative impact on the health of people and ecosystems in the surrounding areas. Due to rapid urbanization and population growth, especially in emerging countries, the world's waste volume is expected to reach 3.4 billion tons per year over the next 30 years.

ITOCHU is involved as a developer, investor, and operator in 4 energy-from-waste projects for municipal governments in the United Kingdom, which treat 1.3 million tons of waste annually, accounting for 15% of the UK's waste incineration market, and generate enough electricity to power 160,000 British households. In the Republic of Serbia, we are working with the government of Serbia and City of Belgrade to develop an energy-from-waste project. The project will address one of the biggest environmental and social problems in Serbia - closing and remediating the existing landfill at the Vinca dumpsite, and treat municipal solid waste in City of Belgrade, and generate electricity. Financed by International Finance Corporation (IFC), the European Bank for Reconstruction and Development (EBRD) and Oesterreichische Entwicklungsbank (Austria's Development Bank "OeEB"), the construction of an energy-from-waste facility is under construction. This project will treat 340,000 tons of waste annually and generate enough electricity to power 30,000 households. In addition to these projects, ITOCHU have started an energy-from-waste project in the Emirate of Dubai, the United Arab Emirates in 2020. This project will be one of the largest energy-from-waste projects in the world, which will treat 1.9 million tons of waste annually, accounting for about 45% of the municipal solid waste in UAE, and generate electricity. This project will contribute to reaching the goals set by Dubai Municipality in minimizing the volume of municipal waste in landfills and developing alternative energy sources as well as contribute to sustainable and ecologically friendly waste management.



Serbia/Belgrade Waste Management Public-Private Partnership project (under construction with Interim Service)

Clean-tech Business

7. CCUS • Carbon Fixation

ITOCHU invested in the Australia-based company, Mineral Carbonation International (MCI), and has been collaborating with MCI in promoting its technology which produces calcium carbonate by combining by-products of the steelmaking process (slag), coal ash and/or waste concrete with CO₂, to permanently lock away CO₂ in a solid form and utilize as building materials. MCI was, in June 2021, awarded 14.6 million Australian dollars grants from the Australian government's Carbon Capture Use and Storage (CCUS) Fund, and then in November 2021 MCI won the first prize in the COP26 Clean Energy Start-up Pitch Battle in Glasgow, among 2,700 competing companies around the world. MCI is a company that aims to remove a billion tons of CO₂ annually in the future, as its company mission. In July 2022, ITOCHU, TAISEI CORPORATION, and MCI concluded a memorandum of understanding and have started to verify the use of this calcium carbonate as raw materials for concrete.

Furthermore, ITOCHU acts as a member of a consortium which was awarded a project, worth total 16 billion yen, launched by New Energy and Industrial Technology Development Organization (NEDO), for the research and development, demonstration and surveys to establish the mass transportation technology for liquefied CO₂, by connecting emission sources to utilization/storage points. In addition, ITOCHU has been engaged with the research and demonstration for the mass cultivation of the euglena microalgae, making use of CO₂ from neighboring coal-fired power plant, which again is a project run by NEDO, with a partner, euglena Co., Ltd.



8. Green Buildings

ITOCHU's construction and real estate group are committed to providing real estate and distribution services, especially in housing and commercial facilities as well as distribution facilities and housing complexes, which are sustainable and relevant to everyday life. We aim to do so by being involved throughout the value chain, from the development to the operation and management of real estate products, to streamline and optimize the solutions where we can, utilizing smart city concepts and emerging technologies such as IoT.

ITOCHU engages in real estate primarily through its subsidiaries. Advance Residence Investment Corporation, a listed residential real estate investment trust (REIT) that is a subsidiary to ITOCHU, identifies sustainability as a top priority and is well regarded for its performance. For example, it participates in GRESB, a sustainability rating framework for real estate investors, and has 10 real estate assets with DBJ Green Building certifications and 13 real estate assets with CASBEE real estate valuation certifications which accounts to 28.6% in surface area, and 8.3% in number of units among its entire portfolio. At

Advance Logistics Investment Corporation, a listed REIT focused on logistics assets, we own 9 assets with DBJ Green Building certifications, which accounts to 84.9% in surface area, and 69.2% in number of units among its entire portfolio. At Advance Private Investment Corporation, an unlisted open-ended REIT, we own 1 real estate asset with CASBEE real estate valuation certification, which accounts to 33.5% in surface area, and 25% in number of units among its entire portfolio.

9. Collaboration with Outside Initiatives

We are promoting and expanding initiatives for clean-tech business by participating in initiatives. We decide to participate in each initiative upon confirming it conforms to our basic policy and initiatives for the clean-tech business.

Carbon Recycling Fund Institute

The Carbon Recycling Fund Institute was established in August 2019. The fund believes it is necessary to make further initiatives to achieve the target of carbon neutrality by 2050 by using CO₂ as a carbon source. It is a general incorporated association aiming to solve the problem of global warming and to improve energy access around the world at the same time. It will do this by supporting the creation of carbon recycling innovation through research assistance and publicity activities relating to carbon recycling. ITOCHU is also participating as a member.

Tokyo Zero-emission Innovation Bay

Tokyo Zero-emission Innovation Bay was established in June 2020 as a council by research laboratories, factories, business offices, research institutes, and universities located around the Tokyo Bay area, based on the concept proposed by the Japanese Government to develop the Tokyo Bay Area into the world's first Zero Emission Version of Silicon Valley where members can best collaborate, plan and carry out research & development/demonstrations/businesses, and disseminate information around the world. ITOCHU Corporation is listed as its member.

Japan CCS Co., Ltd.

In response to the national policy to develop and promote CCS technology, Japan CCS Co., Ltd. (hereinafter JCCS) was established in May 2008 by a group of major companies with expertise in CCS-related fields, including electric power, petroleum, oil development, and plant engineering. JCCS is a company founded and dedicated explicitly for developing the integrated CCS technology, and conducting feasibility studies and demonstration projects in Tomakomai area, Hokkaido, pertaining to carbon dioxide capture, utilization, transportation and storage technologies. As one of the shareholders, ITOCHU Corporation has been supporting this project. Also, separate from this project in Hokkaido, ITOCHU is jointly conducting research and demonstration project of NEDO to establish liquefied CO₂ ship transportation technology with JCCS as the consortium partners.

Clean-tech Business

The Association for Reciprocal Revitalizations of Renewable Energy and Region (FOURE)

The Association for Reciprocal Revitalizations of Renewable Energy and Region (FOURE) was established in June 2021. It is an organization aiming to expand the introduction of renewable energy that benefits regions and to realize a decarbonized society. The organization is achieving this aim by spreading the introduction of renewable energy as the main power source in regions in Japan and by regions and renewable energy coexisting and mutually developing. ITOCHU has been participating as a member since March 2022.

Japan Sustainable Fashion Alliance

The Japan Sustainable Fashion Alliance was established in August 2021 with ITOCHU serving as a representative alongside GOLDWIN INC. and JEPLAN, INC. The purpose of this alliance is to promote a transition to a sustainable fashion industry with targets of zero fashion loss through appropriate production, appropriate purchasing and recycling, and carbon neutrality in 2050. The alliance will realize its purpose by understanding the impact the fashion industry has on the natural environment and society to come up with solutions jointly for shared issues in the fashion and textile industries. From fiscal year 2022, the co-representative has been changed to ITOCHU, JEPLAN, INC. and ADASTRIA Co., Ltd. (The term of representative is until the end of July 2023)

Clean-tech Business

■ List of Renewable Energy Related Efforts (Power Generation Capacity Basis)

Details of Effort	Name of Business Operator / Investment Project	Country	Generating Capacity / Size	Greenhouse Gas Reduction Figures
Wind Power Generation Business	Aspenall Wind Power Generation Project	USA	43MW	Approx. 120,000 tons / year
	Cotton Plains Wind and Solar Power Generation Business	USA	217MW	Approx. 570,000 tons / year
	Prairie Switch Wind Power Generation Project	USA	160MW	Approx. 370,000 tons / year
	Mutsu Ogawara Wind Power Generation Project (Under Development)	Japan	64.5MW	Estimated 80,000 tons / year
Offshore Wind Power Generation Business	Butendiek Offshore Wind Power Generation Project	Germany	288MW	Approx. 750,000 tons / year
Waste Management Projects	ST&W Waste Management Project / South Tyne & Wear Energy Recovery Holdings Limited	England	Incineration treatment of 260,000 tons / year of general waste Scale of power generation: Equivalent power consumption of 31,000 homes	Estimated 62,000 tons / year
	Cornwall Waste Management Project / Cornwall Energy Recovery Holdings Limited	England	Incineration treatment of 240,000 tons / year of general waste Scale of power generation: Equivalent power consumption of 21,000 homes	Estimated 60,000 tons / year
	Merseyside Waste Management Project / Merseyside Energy Recovery Holdings Limited	England	Incineration treatment of 460,000 tons / year of general waste Scale of power generation: Equivalent power consumption of 63,000 homes	Estimated 130,000 tons / year
	West London Waste Management Project / West London Energy Recovery Holdings Limited	England	Incineration treatment of 350,000 tons / year of general waste Scale of power generation: Equivalent power consumption of 50,000 homes	Estimated 83,000 tons / year
	Serbia Waste Management Project / Beo Cista Energija (Under Operation & Construction)	Serbia	Incineration treatment of 340,000 tons / year of general waste and utilization of landfill gas Scale of power and heat generation: Equivalent power consumption of 30,000 homes and heat consumption 60,000 homes in the winter (planned)	Estimated 210,000 tons / year
	Dubai Waste Management Project / Dubai Waste Management Company P.S.C. (Under Construction)	UAE	Incineration treatment of 1,900,000 tons / year Generating Capacity: 200MW (planned)	Estimated 2,170,000 tons / year
Geothermal Power Generation	Sarulla Operations Ltd	Indonesia	330MW	About 1,350,000 tons/year
Photovoltaic Power Generation	Oita Hiyoshibaru photovoltaic power plant	Japan	45MW	Estimated 32,000 tons/year
	Shin-Okayama photovoltaic power plant	Japan	37MW	Estimated 26,000 tons/year
	Saijo Komatsu photovoltaic power plant	Japan	26MW	Estimated 17,000 tons/year
	Saga-Ouchi photovoltaic power plant	Japan	21MW	Estimated 11,000 tons/year
	VPPJapan	Japan	119MW	Estimated 52,000 tons/year
	Clean Energy Connect	Japan	44MW	Estimated 19,000 tons/year
Biomass Power Generation	Ichihara Biomass Power Plant	Japan	49.9MW	N/A*
	Hyuga Biomass Power Plant (Under Development)	Japan	50MW	N/A*
	Tahara Biomass Power Plant (Under Development)	Japan	50MW	N/A*

* The lifecycle GHG calculation methodology has not been established

ESG Data (Environment)

Independent Assurance

The data below marked with ★ and ◆ is independently assured by KPMG AZSA Sustainability Co., Ltd. This assurance is conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 and 3410 of the International Auditing and Assurance Standards Board (IAASB).

★: Total electricity consumption and Scope1・Scope2 and its total attributable to Japanese Bases of ITOCHU Corporation, and the waste, waste non-recycled, waste recycled, recycling rate, water consumption, treated water production volume and wastewater volume for the Tokyo Headquarters, and the volume of water withdrawal & wastewater discharge and Scope3 (Upstream Transportation & Distribution) attributable to distribution of ITOCHU Corporation.

Independent Assurance Report (P207)

◆: Total electricity consumption and Scope1・Scope2 and its total attributable to ITOCHU Group, NOx, SOx, VOC emissions of Japanese Bases of ITOCHU Group and hazardous waste of Japanese Bases of ITOCHU Corporation and Japanese Bases of ITOCHU Group.

Independent Assurance Report (P207)

Scope of Aggregation

○: in scope of aggregation

			Japanese Bases of ITOCHU Corporation*1	Group Companies in Japan*2	Overseas Offices*3	Overseas Group Companies*4
Climate Change	Energy Consumption	Energy Consumption	○	—	—	—
		Energy Consumption Attributable to Business Facilities	○	—	—	—
		Electricity Consumption	○	○	○	○
		Heat & Steam Consumption	○	○	○	○
		Fuel Consumption	○	○	○	○
	Energy Intensity	○	—	—	—	
	GHG Emission	Scope1・Scope2	○	○	○	○
		GHG Emissions from Business Facilities	○	○	○	○
		Scope1 Total Emissions Breakdown by GHG Type	○	○	○	○
		Scope3	○	○	○	○
GHG Emissions (Scope1+2) Intensity		○	○	○	○	
Prevention of Pollution & Resource Circulation	Prevention of Pollution	NOx, SOx, VOC	○	○	○	○
	Resource Circulation	Waste & Waste Recycling Rate	○	○	○	○
		Hazardous Waste	○	○	○	○
Water Resources Conservation	Water Withdrawal and Wastewater Discharge	Paper Consumption	○	—	—	—
		Volume of Water Withdrawal & Wastewater Discharge, Water Withdrawal Amount by Withdrawal Source, Discharge Amount by Discharge Destination, Water Withdrawal in Water Stressed Regions, Water Consumption in Manufacturing Processes that are Highly Dependent on Water Resources (Intensity), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD)	○	○	○	○
Environmental Accounting	Environmental Conservation Costs, Environmental Conservation & Economic Effects		○	—	—	—

*1 The Tokyo Headquarters, the Osaka Headquarters, 5 Branches (Hokkaido, Tohoku, Chubu, Chugoku & Shikoku, Kyushu).
 The number of offices including domestic branches: FYE 2019: 8, FYE 2020: 7, FYE 2021: 6, FYE 2022: 8, FYE 2023: 6 (Data coverage in FYE 2023: 100%)
 Up to FYE 2021, other branches had been included. Ippeki Villa Area is not included in the scope of the data FYE 2023 due to business transfer during the fiscal period.

*2 The number of companies covered: FYE 2019: 220, FYE 2020: 238, FYE 2021: 232, FYE 2022: 233, FYE 2023: 225 (Data coverage in FYE 2023: 100%)*5

*3 The number of overseas offices covered: FYE 2019: 30, FYE 2020: 29, FYE 2021: 49, FYE 2022: 46, FYE 2023: 43 (Data coverage in FYE 2023: 100%)

*4 The number of companies covered: FYE 2019: 282, FYE 2020: 286, FYE 2021: 274, FYE 2022: 254, FYE 2023: 257 (Data coverage in FYE 2023: 100%)*5

*5 The number of companies covered includes all the consolidated subsidiaries, including those held for investment management purposes. However, companies expected to be sold within the next five years held for investment management purposes are not included in the scope of the data. Moreover, non-manufacturing site offices with 10 or fewer employees are quantitatively insignificant. Accordingly, they are not included in the scope of the data.

ESG Data (Environment)

Climate Change Performance Data

Energy Consumption

Energy Consumption

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Corporation	Purchased and Consumed Non-Renewable Fuel (Unit: MWh)	525	691	640	580	331
	Purchased Non-renewable Power (Unit: MWh)	29,306	28,747	27,320	27,107	26,332
	Other Purchased Non-renewable Energy (e.g., Steam, Heat and Cooling Water) (Unit: MWh)	7,605	7,385	7,401	6,869	7,046
	Generated Renewable Energy (Solar Power Generation*) (Unit: MWh)	51	54	60	63	61
	Total of Energy Consumption Cost (Unit: million JPY)	404	537	571	573	652

* Solar Power Generation
 ITOCHU has installed solar panels on the roof of our Tokyo Headquarters and the roof of the adjacent ITOCHU Garden (former CI PLAZA). These panels started generating power in March 2010. The power generation capacity of the solar panels installed is a total of 100 kW. This is equivalent to the power for 30 regular houses (calculated at approximately 3.0 kW per house). All the clean energy generated is used in our Tokyo Headquarters. This is equivalent to an amount of power used in lighting 3.5 floors in our Tokyo Headquarters (during maximum instantaneous power generation).

Energy Consumption Attributable to Business Facilities

(Unit: GJ)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Tokyo Headquarters*	127,824	126,135	121,290	118,419	118,627

* The figures for the Tokyo Headquarters are calculated based on the Tokyo Metropolitan Ordinance on Environmental Preservation.

Electricity Consumption

(Unit: MWh)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Corporation*	11,014	10,759	10,231	10,214	★ 9,269
Group Companies in Japan	878,025	1,204,830	1,248,258	1,202,311	975,320
Overseas Offices	2,118	2,098	3,515	3,469	3,126
Overseas Group Companies	590,175	447,462	437,030	422,880	538,683
Grand Total of ITOCHU Group	1,481,382	1,665,148	1,699,034	1,638,874	◆ 1,526,398

* This data has been calculated based on the Act on the Rational Use of Energy for the Japanese Bases of ITOCHU Corporation. The Tokyo Headquarters is sourcing its real CO₂-free electricity together with a Non-Fossil Fuel Certificate since January 2020. The Non-Fossil Fuel Certificate includes the tracking information of Maebashi Biomass Power Plant (Maebashi, Gunma Prefecture) and is used at the Tokyo Head Office building in combination with purchased electricity.

Heat and Steam Consumption

(Unit: GJ)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
ITOCHU Group	Industrial Steam	494,035	541,932	488,429	520,936	851*1
	Non-industrial Steam	13,998	14,452	15,462	14,532	14,593
	Hot Water	4,781	4,860	5,710	6,285	4,745
	Cold Water	82,139	75,227	67,618	62,874	22,353*2

*1 In FYE2023, a group company became non-consolidated subsidiaries and is not included in the calculation, which causes significant decrease from the previous fiscal year.

*2 Decreased in FYE2023 due to sales of some business sites of a group company.

Fuel Consumption

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023	
ITOCHU Group	Kerosene (Unit: kL)	4,468	2,609	3,387	3,086	2,151	
	Light Oil (Unit: kL)	39,362	41,790	48,460	46,262	48,762	
	Gasoline (Unit: kL)	12,598	12,759	12,688	11,547	11,619	
	Heavy Oil A (Unit: kL)	18,289	20,432	18,969	58,137	19,292	
	Heavy Oil B and C (Unit: kL)	16,551	25,942	25,546	13,595	20,784	
	Coal (Unit: t)	333,176	315,148	325,431	292,371	192,663	
	Petroleum gas	Liquefied Petroleum Gas (LPG) (Unit: t)	6,614	11,966	11,294	13,575	14,661
		Liquefied Petroleum Gas (LPG) (Unit: thousand m ³)	496	472	469	1,200	578
		Liquefied Petroleum Gas (LPG) (Unit: kL)	—	186	1,209	660	564
		Petroleum Hydrocarbon Gas (Unit: thousand m ³)	1,860	340	3	3	3
	Combustible Natural Gas	Liquefied Natural Gas (LNG) (Unit: t)	3,161	5,698	4,524	11,654	2,534
		Other Combustible Natural Gas (Unit: thousand m ³)	14,565	14,115	12,761	7,101	27,749
	City Gas, etc.	City Gas (Unit: thousand m ³)	33,552	26,692	46,793	37,107	33,931
		Other Gas (Unit: thousand m ³)	158	242	404	0	0

ESG Data (Environment)

Energy Intensity

Energy Consumption from ITOCHU's Domestic Sites (Intensity Unit)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Per Employee (Total of Japanese Bases of ITOCHU Corporation)(Unit: GJ/employee)	18.325	16.070	15.536	15.245	14.418
Per One Square Meter of All Floor Space (Total of Japanese Bases of ITOCHU Corporation) (Unit: GJ/m ²)	0.688	0.684	0.576	0.564	0.539

* The denominators of intensity figures per one square meter of all floor space are as follows: FYE 2019: 115,842 m², FYE 2020: 101,545 m², FYE 2021: 114,920 m², FYE 2022: 113,434 m², FYE 2023: 111,945 m²

GHG Emissions

Scope1 • Scope2

(Unit: thousand t-CO₂e)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Corporation	Scope1	0	0	0	0	★ 0
	Scope2	7	7	6	6	★ 6
	Scope1+2	7	7	7	6	★ 6
ITOCHU Group	Scope1	1,213	1,203	1,522	1,485	◆ 1,166
	Scope2	771	836	800	716	◆ 600
	Scope1+2	1,985	2,038	2,322	2,201	◆ 1,766

GHG Emissions from Business Facilities

(Unit: thousand t-CO₂e)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Tokyo Headquarters		6	6	6	6	★ 6
	Non-Fossil Certificate	0	0	4	4	4
	Net Scope2	6	6	3	2	2
Japanese Bases of ITOCHU Corporation		7	7	7	6	★ 6
Group Companies in Japan		1,361	1,526	1,611	1,507	1,133
Overseas Offices		3	2	3	3	3
Overseas Group Companies		614	504	701	684	625
Grand Total of ITOCHU Group		1,985	2,038	2,322	2,201	◆ 1,766

Scope1 Total Emissions Breakdown by GHG Type

(Unit: thousand t-CO₂e)

		Global Warming Potential (GWP)(t-CO ₂ e)	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Scope1 Total Emissions		—	1,213	1,203	1,522	1,485	1,166
Energy Consumption CO ₂		—	1,161	1,158	1,234	1,214	907
Total GHG Emissions other than CO ₂ from Energy Consumption		—	52	44	288	270	259
Breakdown	Non-energy Consumption CO ₂	1	0	0	0	0	16
	Methane (CH ₄)	25	0	1	118	136	122
	Dinitrogen Monoxide (N ₂ O)	298	18	18	119	108	103
	Hydrofluorocarbon (HFCs)	7,390~10,300	34	24	51	26	18
	Perfluorocarbon (PFCs)	—	0	0	0	0	0
	Sulfur Hexafluoride (SF ₆)	—	0	0	0	0	0
	Nitrogen Trifluoride (NF ₃)	—	0	0	0	0	0

* The calculation of GHG uses the GHG Protocol developed by WRI (the World Resources Institute) and WBCSD (the World Business Council for Sustainable Development), and is aggregated according to the Management Control Standards(the control approach).

* The data has been calculated based on the Tokyo Metropolitan Ordinance on Environmental Preservation for the Tokyo Headquarters and based on the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures for the Osaka Headquarters, Branches in Japan, business facilities and group companies in Japan. Basic emission factors are used up to FYE 2021, and adjusted emission factors are used from FYE 2022 concerning consumed electricity. For FYE 2023, the adjusted emission factors for each electric power company published by the Ministry of the Environment in January 2023 are applied.

* From FYE 2020, the data has been calculated based on the CO₂ conversion coefficient according to the data of 2018 by country of the International Energy Agency (IEA) for overseas offices and overseas group companies. The data before FYE 2019 has been calculated based on the average of the CO₂ conversion coefficient between 2010 and 2012. We used IEA 2020 data for calculation of the figures of FYE 2023.

* From the FYE 2019 data, GHG emissions other than CO₂ from energy consumption, are also included. GHG emissions other than CO₂ from energy consumption from group companies that emit more than 3,000 t-CO₂e per year are aggregated and disclosed.

* We started including "CH₄ and N₂O emissions associated with pig breeding and excrement management" and "HFC emissions due to leaks from refrigerating equipment, etc." with FYE 2019 data, and started further including "CH₄ emissions associated with wastewater treatment", "CH₄ emissions associated with composting and landfilling waste" and "N₂O emissions associated with the use of fertilizer on farms" with FYE 2021 data.

* GHG emissions derived from fluorocarbons are as follows
 - Group Companies in Japan: Calculated according to the calculation method stipulated by Act on Rational Use and Appropriate Management of Fluorocarbons. However, HCFC is not included in the aggregation.
 - Overseas Group Companies: Calculated based on the charging amount of fluorocarbons used as refrigerants.

* The global warming potential (GWP: Global Warming Potential) for the calculation of GHG emissions other than CO₂ from energy consumption is based on GWP 100 of the IPCC 4th Assessment Report (AR4).

* GHG emissions other than CO₂ have several tens to several tens of thousands of times of greenhouse effect compared to CO₂, and t-CO₂e is used as a unit for expressing that greenhouse effect equivalent to CO₂.

ESG Data (Environment)

Scope3

(Unit: thousand t-CO₂e)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Capital Goods*1	373	800	660	621	598
Fuel & Energy Related Activities*2	239	328	310	389	342
Upstream Transportation & Distribution*3	15	13	12	10	★ 12
Waste Generated in Operations*4	229	235	369	350	298
Business Travel*5	71	56	21	25	44
Employee Commuting*6	27	25	25	23	18
Franchises*7	1,222	1,152	1,089	1,048	1,025

Emission intensity is selected mainly from the Inventory Database for Calculation of an Organization's GHG Emissions through the Supply Chain issued by the Ministry of Environment of Japan including the latest version and the Inventory Database for Environmental Analysis (IDEA) Ver.2.2 developed by National Institute of Advanced Industrial Science and Technology (AIST) and Japan Environmental Management Association for Industry.

- *1 Calculated by multiplying the amount of fixed assets acquired (consolidated basis) in the relevant fiscal year by the emission intensity per capital goods price.
- *2 Calculated using various emission intensities for fuel, heat, and purchased electricity collected during Scope 1 and Scope 2 calculations. Emissions from the generation of wholesale and retail electricity are also included in this category.
- *3 Emissions related to domestic contracted transportation of ITOCHU Corporation as the shipper are calculated based on the Greenhouse Gas Emissions Calculation and Reporting Manual issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.
- *4 Calculated based on various waste and wastewater emissions intensity for the entire ITOCHU Group.
- *5 Calculated based on the consolidated accounting data of the ITOCHU Group. The emissions intensity is used for each type of business trip. In FYE 2023, the GHG reduction effect of 100t-CO₂e was included applying "Certificate of CO₂ Reduction Effect by SAF" which we purchased through "SAF Flight Initiative" offered by All Nippon Airways Co., Ltd.
- *6 The consolidated commuting expenses are estimated based on ITOCHU's commuting expenses and the number of employees, and then the figure is calculated using the emission intensity of railway commuting.
- *7 The difference between Scope 1 and Scope 2 of franchisees of related consolidated subsidiaries of the ITOCHU Group and Scope 1 and Scope 2 of those subsidiaries is recorded.

Carbon Intensity

GHG (Scope1+2) Emissions from ITOCHU's Domestic Sites and ITOCHU Group (Intensity Unit)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Per Employee(Total of Japanese Bases of ITOCHU Corporation) (Unit: t-CO ₂ e/employee)	1.622	1.596	1.552	1.540	1.439
Per One Square Meter of All Floor Space(Total of Japanese Bases of ITOCHU Corporation) (Unit: t-CO ₂ e/m ²)	0.061	0.068	0.058	0.057	0.054
Per MWh of Electricity Consumption(Grand Total of ITOCHU Group) (Unit: t-CO ₂ e/MWh)	0.524	0.502	0.471	0.437	0.393

* The denominators of intensity figures per one square meter of all floor space are as follows: FYE 2019: 115,842 m², FYE 2020: 101,545 m², FYE 2021: 114,920 m², FYE 2022: 113,434 m², FYE 2023: 111,945 m²

CO₂ Emissions by Beverage Manufacturing Companies (Intensity Unit)

Business Profile	Company Name (Boundary)	Unit	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Beverage Manufacturing	Clear Water Tsunan Co., Ltd. (Soft drink manufacturing and sales business)	t-CO ₂ e / production capacity in kL	0.091	0.081	0.088	0.080	0.062

Pollution Prevention and Resource Circulation Performance Data

Pollution Prevention

NOx, SOx, VOC

(Unit: t)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Group *1	NOx (Nitrogen Oxides) *2	1,337	1,378	1,569	1,437*4	◆ 1,108
	SOx (Sulfur Oxides) *2	442	514	416	416	◆ 370
	VOC (Volatile Organic Compounds) *3	419	424	445	400	◆ 219
Overseas Bases of ITOCHU Group	NOx (Nitrogen Oxides)*2	1,403	1,293	1,458	1,656	131
	SOx (Sulfur Oxides)*2	795	648	333	545	284
	VOC (Volatile Organic Compounds)*3	168	168	182	192	222
Grand Total of ITOCHU Group	NOx (Nitrogen Oxides)*2	2,740	2,671	3,027	3,093*4	1,239
	SOx (Sulfur Oxides)*2	1,237	1,162	749	961	653
	VOC (Volatile Organic Compounds)*3	587	592	627	592	441

- *1 The data are calculated for the business bases located in Japan.
- *2 NOx and SOx emissions are calculated for soot and smoke generating facilities under the Air Pollution Control Act.
- *3 VOC emissions are calculated for compounds that fall under the VOC 100 types indicated in the notification of the Air Pollution Control Act by the Ministry of the Environment. The main compounds to be counted include ethyl acetate, propyl acetate and isopropyl alcohol. See Attachment 1 of "Enforcement of the Act to Partially Amend the Air Pollution Control Act" (Notice of the Ministry of the Environment, No. 050617001, Kankan Daihatsu, dated June 17, 2005).
- *4 Data for FYE2022 have been revised due to an error in the calculation.

ESG Data (Environment)

Resource Circulation

Waste Generated and Waste Recycling Rate

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Tokyo Headquarters	Waste Generated (Unit: t)	680	767	465	469	★ 428
	Waste Non-recycled	48	44	31	30	★ 39
	Waste Recycled	632	723	434	439	★ 389
	Recycling Rate (Unit: %)	92.9	94.3	93.4	93.7	★ 90.9
Osaka Headquarters, Branches and Other Business Facilities in Japan	Waste Generated (Unit: t)	6,758	1,354	1,226	2,265	3,160
Group Companies in Japan	Waste Generated (Unit: t)	89,210	149,949	248,465	141,355	110,911
Overseas Offices	Waste Generated (Unit: t)	17	9	41	238	449
Overseas Group Companies	Waste Generated (Unit: t)	364,476	461,018	504,085	504,296	525,187
Grand Total of ITOCHU Group	Waste Generated (Unit: t)	460,844	613,097	754,283	648,623	640,135
	Waste Non-recycled	—	450,376	584,567	194,374	132,496
	Waste Recycled	—	162,721	169,716	454,249	507,639
	Recycling rate (Unit: %)	—	27	23	70	79

* The waste generated of the Tokyo Headquarters includes the amount sold as valuables.
 * Due to the increase in the number of companies subject to aggregation, the figure for FYE 2019 has increased significantly compared to FYE 2018.

Hazardous Waste Generated

(Unit: t)

	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Corporation · Japanese Bases of ITOCHU Group *1*2	0.3	329	750	251	◆ 226
Overseas Offices · Overseas Bases of ITOCHU Group	—	1,111	1,111	1,063	4,374
Grand Total of ITOCHU Group	—	1,440	1,861	1,314	4,600

*1 The data are calculated for the business bases located in Japan.
 *2 The amount of specially controlled industrial waste specified in the "Waste Disposal and Public Cleansing Law" is totaled.
 * The data of FYE 2019 include only those of Tokyo Headquarters and Osaka Headquarters of ITOCHU Corporation.

Paper Consumption

(Unit: thousand sheets (A4 equivalent))

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Japanese Bases of ITOCHU Corporation	Copy Paper Consumption	30,711	26,913	19,167	14,916	14,383

ESG Data (Environment)

Water Resources Performance Data

Water Withdrawal and Wastewater Discharge

Volume of Water Withdrawal & Wastewater Discharge

(Unit: thousand m³)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Tokyo Headquarters	City Water Usage	47	42	29	30	★ 37
	Treated water production volume	31	34	25	27	★ 32
	Wastewater Discharge	59	60	41	41	★ 50
Osaka Headquarters, Branches and Other Business Facilities in Japan*	Water withdrawal	—	73	61	84	4
	Wastewater discharge	—	170	133	169	6
Japanese Bases of ITOCHU Corporation	Water withdrawal	—	115	90	115	★ 41
	Wastewater discharge	—	230	173	210	★ 56
Group Companies in Japan*	Water withdrawal	32,335	21,947	24,540	25,228	14,833
	Wastewater discharge	51,913	9,594	14,269	14,926	9,835
Overseas Offices*	Water withdrawal	5	5	16	31	39
	Wastewater discharge	5	5	15	31	39
Overseas Group Companies*	Water withdrawal	106,182	72,064	48,494	32,747	30,208
	Wastewater discharge	34,380	16,394	21,723	16,319	14,347
Grand Total of ITOCHU Group	Water withdrawal	—	94,132	73,140	58,120	45,121
	Wastewater discharge	—	26,223	36,180	31,486	24,277

* If we do not know the wastewater discharge, we have calculated it assuming that it is the same as the volume tap water consumption.
 * The amount of wastewater discharge from Japanese Bases of ITOCHU Corporation until FYE 2022 includes wastewater from sewage treatment plants that receive and treat sewage from third parties, so the amount of wastewater greatly exceeds the amount of water withdrawal.
 * FYE 2023, water withdrawal and wastewater volume decreased significantly from the previous fiscal year because the business of the Ippeki villa area was transferred during the fiscal year and is not included in the calculation.

Water Withdrawal Amount by Withdrawal Source

(Unit: thousand m³)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
ITOCHU Group	Supplied Water Usage, Industrial Water	9,560	10,764	12,119	11,655	11,669
	Groundwater Withdrawal	92,899	46,764	20,516	16,702	15,349
	Water Taken from Rivers, Lakes, Rainwater	31,740	26,323	31,402	19,729	18,079
	Water Taken from Seawater	4,339	10,269	9,068	10,015	0
	Others (Produced Water, etc.)	0	11	34	19	25
Grand Total		138,538	94,132	73,140	58,120	45,121

Discharge Amount by Discharge Destination

(Unit: thousand m³)

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
ITOCHU Group	Water Discharged to Treatment Facility (e.g. Sewage)	57,669	3,664	7,181	9,893	7,052
	Water Discharged to Groundwater	9,243	5,731	11,639	6,464	3,912
	Water Discharged to Rivers, Lakes	12,992	10,464	10,251	12,581	10,730
	Water Discharged to Sea	6,453	6,130	6,679	1,905	1,857
	Others	—	—	431	642	725
Grand Total		86,358	25,989	36,181	31,486	24,277

ESG Data (Environment)

Water Withdrawal in Water Stressed Regions

The amount of water withdrawal at sites with high risk and extremely high risk (>40%) identified using the WRI Aqueduct tool developed by WRI (World Resources Institute) (P71) is as follows. Assuming the total amount of water withdrawal in FYE 2022 as 100%, the amount of water withdrawal at sites with high risk is 4%, and that at sites with extremely high risk is 2%.

		FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
High Risk (40-80%)	Number of Sites	5	6	7	4	5
	Water Withdrawal (thousand m ³)	188	2,201	2,786	2,449	2,478
Extremely High Risk (>80%)	Number of Sites	2	2	3	3	5
	Water Withdrawal (thousand m ³)	583	623	1,096	1,362	1,167

Water Consumption in Manufacturing Processes that are Highly Dependent on Water Resources (Intensity)

Category	Boundary	Unit	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Beverage Manufacturing	Clear Water Tsunan Co., Ltd. (Soft drink manufacturing and sales business)	Water Consumption m ³ / Production Volume in kL)	2.01	1.95	1.85	1.82	1.83

Biochemical Oxygen Demand (BOD) Chemical Oxygen Demand (COD)

		Unit	FYE 2021	FYE 2022	FYE 2023
ITOCHU Group discharge amount into Water	BOD load	t	39,099	28,622	52,612
	COD load	t	213,808	135,710	231,914

Chemical Oxygen Demand (COD)

Category	Boundary	Unit	FYE 2019	FYE 2020	FYE 2021	FYE 2022	FYE 2023
Chemical	C.I. TAKIRON Corporation (factory)	mg/L	3.90	2.78	2.20	2.80	1.50

Environmental Accounting

Environmental Conservation Costs

(Unit: thousands of yen)

	Classification	Items	FYE 2023
Japanese Bases of ITOCHU Corporation	Costs inside Business Areas	Costs related to pollution prevention, global environmental conservation, and resource recycling	131,558
	Upstream & Downstream Costs	Additional costs for reducing environmental impact, green procurement costs, and containers and packaging recycling.	12,203
			(Green Procurement Costs)
	Management Activity Costs	Costs for the development and operation of environmental management systems and environmental education for employees	242,835
	Research and Development Costs	R & D costs for products contributing to environmental conservation	500
	Social Activity Costs	Costs for environmental improvement measures such as nature conservation, greening, beautification, and landscape preservation, as well as donations and support to organizations engaged in environmental conservation	8,799
	Costs to Address Environmental Damage	Costs for nature restoration, compensation for damages related to environmental conservation, etc.	26,215
	Grand Total of Japanese Bases of ITOCHU Corporation		422,109

* Summarized based on the Environmental Accounting Guidelines - 2005 Edition from the Ministry of the Environment.

Environmental Conservation & Economic Effects

		FYE 2023	
		Environmental Conservation Effects	Economic Effects (Unit: thousands of yen)
Japanese Bases of ITOCHU Corporation	Paper Usage	533 thousand sheets	340
	Electricity Usage	945 MWh	-79,055
Tokyo Head Office	Waste Emissions	41 t	1,883
	Water Usage	-15,375 m ³	-7,145

* Environmental conservation and economic effects are calculated by subtracting actual values for the current fiscal year from those for the previous fiscal year.

Understanding the Situation of our Environmental Obligations

We do not limit ourselves to just supporting statutory requirements in regards to the environmental risks in the tangible fixed assets (e.g., land and buildings) of ITOCHU alone and our group companies — in particular, asbestos, PCB and soil contamination; we also look to understand the situation through surveys voluntarily and then aim to respond in a way that is helpful to prompt management policy decisions and judgments. As of March 2023, we estimate the cost of waste disposal at JPY 33 million, which is a reasonably estimable amount (shadow cost) for future environmental liabilities.