CO_2 Emissions Reduction

Material Issue
Environmentally Responsible MONOZUKURI
(Product Development and Manufacturing Practices)

Policy Governance Strategy Risk management Metrics and targets Specific initiatives

Policy

The Fuji Oil Group established the Basic Policy of Environmental Integrity in 2015.

Fuji Oil Group Basic Policy of Safety, Quality and Environment
https://www.fujioil.co.jp/en/sustainability/policy/basic_policy/

Governance

The Fuji Oil Group has established the Sustainability Committee as an advisory body to the Board of Directors that is chaired by the President and CEO. From a multi-stakeholder perspective, the committee deliberates on and monitors CO_2 Emissions Reduction, a priority action to address material ESG issues,[*2] and makes recommendations to the Board. Under the oversight of the Head of Safety, Quality and Production Technology Headquarters, the Executive Officer, the Group implements related initiatives to achieve the Environmental Vision 2030/2050.[*3]

*1 Governance, Strategy, Risk Management, Metrics and Targets > Governance
https://www.fujioil.co.jp/en/sustainability/sustainability_management/#governance

*2 Governance, Strategy, Risk Management, Metrics and Targets > Metrics and targets
https://www.fujioil.co.jp/en/sustainability/sustainability_management/#index

*3 Environmental Management > Metrics and targets
https://www.fujioil.co.jp/en/sustainability/environmental_management/#index

Strategy

While global efforts on decarbonization are gaining momentum, the 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change called for improved effectiveness and transparency of mitigation and adaptation measures by each country and region in reducing CO_2 emissions. On the other hand, there are concerns about revisions to environmental regulations in some regions and a retreat in attitudes toward climate change measures. Even under such circumstances, we recognize that it is indispensable for the Group to work on greenhouse gas (GHG) emissions reduction and tackle climate change, as we operate benefitting from nature in the use of agricultural products as primary raw materials, and use energy at production sites around the world. Without progressive climate change mitigation, our Group will face greater risk of exposure to natural disasters as well as other increased risks such as reduced raw material yield impacting stable procurement, carbon taxes, and other environmental regulations restricting our business activities. At the same time, stronger initiatives to help bring about a decarbonized world can create opportunities for lowering energy costs and encouraging sustainable corporate growth.
In recognizing this, we have revised our environmental vision targets related to CO_2 Emissions Reduction, a priority action to address material ESG issues. As a long-term target, we aim to achieve net-zero GHG emissions from our business activities by FY2050. As for our

short-term targets by FY2030, we have set reduction targets aligned with the 1.5°C target recommended by the Intergovernmental Panel on Climate Change (IPCC). In addition, we are also focused on emissions stemming from forest, land and agriculture (FLAG)[*1] sectors. We have established new reduction targets in these areas as well. By working to reduce emissions related to raw material procurement and land use, we aim to lower our environmental impact across the entire supply chain in an effort to realize a more comprehensive net-zero emissions strategy. Given these considerations, the Environmental Vision 2030/2050[*2] has become the new guideline for the entire Group to follow as we take steps to reduce our GHG emissions.
The entire Group works together to achieve these targets through continued efforts to conserve energy, installing new energy-efficient equipment, and using renewable energy at production sites. In Japan, we also aim to shift to purchasing only carbon-free electricity[*3] by 2030.

Environmental Management > Strategy
https://www.fujioil.co.jp/en/sustainability/environmental_management/#strategy

*1 FLAG-related emissions: Greenhouse gas emissions related to land-use change, land management, and carbon removal.

*2 Environmental Management > Metrics and targets
https://www.fujioil.co.jp/en/sustainability/environmental_management/

*3 Carbon-free electricity: Electricity from energy providers that is generated from renewable energy sources and is carbon-free as an added value. CO_2 emission factor can be taken as zero.

Risk management

The Fuji Oil Group systematically manages risks and opportunities related to Environmentally Responsible MONOZUKURI (Product Development and Manufacturing Practices), an area of sustainability matters that address material ESG issues, in alignment with Group significant risks.

Group significant risks
Risk type: Strategy/ Environment and human rights/ Procurement
https://www.fujioil.co.jp/en/ir/policies_and_systems/risk/

Environmental Management > Risk management
https://www.fujioil.co.jp/en/sustainability/environmental_management/#risk_management

Metrics and targets

GRI: 305-5

FY2030 targets[*1]	FY2024 results[*1]	Progress on FY2030 targets
Scopes 1[*2] & 2[*3]: 40% reduction in total CO_2 emissions (All Group companies)	31% reduction	78%
Scope 3[*4] (Category 1[*5]): 18% reduction in total CO_2 emissions (All Group companies[*6])	16% increase	Not achieved

*1 Base year: FY2016

*2 Scope 1: Direct emissions of greenhouse gases from our own operations

*3 Scope 2: Indirect emissions of greenhouse gases from the use of electricity, heat and steam supplied by third parties

*4 Scope 3: Emissions from the activities of non-Group companies in our value chain (Categories 1-15)
Recalculated emissions for FY2016 using emission factors of LCI database AIST-IDEA ver. 3.3. Recalculated emissions for FY2023 and FY2024 using emissions factors of LCI database AIST-IDEA ver. 3.4.

*5 Category 1: Indirect emissions from purchased goods and services

*6 Excluding Fuji Brandenburg GmbH (Germany)

NOTE: Scope of the Group is as of March 31, 2025.
See the List of Fuji Oil Group Companies:
https://www.fujioil.co.jp/pdf/en/sustainability/download/esg2025.pdf#page=14

○ At least 90% complete △ At least 60% complete ✕ Less than 60% complete

FY2024 Goals		FY2024 Results	Self-assessment
Formulate new targets for reducing CO_2 emissions		• New targets formulated. From FY2025, activities aimed at achieving the new reduction targets will be carried out (NOTE: Results reported in this sustainability report are based on the previous targets) FY2030: 42% reduction in total Scope 1 and 2 GHG emissions 25% reduction in total Scope 3 (Category 1) GHG emissions 30.3% reduction in total GHG emissions in the FLAG sectors FY2050: Net-zero GHG emissions overall in Scopes 1, 2, and 3	○
Improve the level of Scope 1 and 2 emission reductions	Continuously promote energy-saving activities and the introduction of renewable energy	• Conducted internal awareness activities through environmental audits at four Group companies • Initiated energy-saving patrols at Fuji Oil Co., Ltd. aimed at boosting energy-saving activities and making them more independent	○
	Promote the introduction of an internal carbon pricing system at Group companies outside Japan	Started trial adoption of internal carbon pricing at five Group companies outside Japan	○
Improve the level of Scope 3 emission reductions	Continuously implement supplier engagement practices	Conducted engagement with 20 suppliers in and outside Japan through online meetings and surveys	○

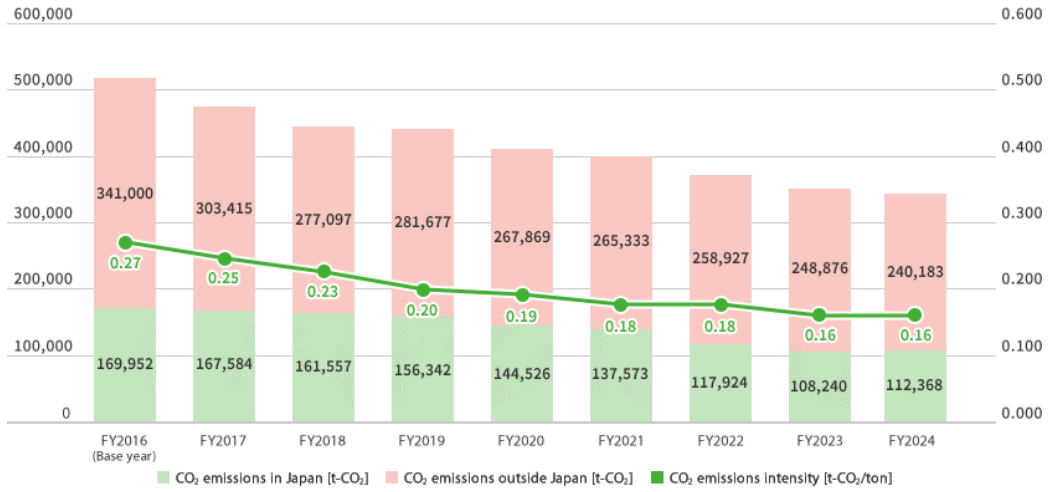
Analysis

Scope 1 and 2 emissions in FY2024 were 31% lower than the base year (FY2016), an additional improvement of one percentage points from the previous fiscal year's 30% reduction. This represents a 78% achievement rate relative to or target by FY2030. At business sites in Japan, approximately 50% of purchased energy is now carbon free. Outside Japan, Group companies worked on electricity conservation, equipment maintenance and other energy-saving efforts, along with introducing renewable energy, which contributed to reduced CO_2 emissions. We also aimed to improve environmental management through environmental audits. In addition, we have started the trial introduction of the internal carbon pricing system. (ICP unit price: 10,000 yen/t-CO_2) at several Group companies outside Japan in order to promote environmentally responsible investments.
Scope 3 (category 1) emissions in FY2024 were 16% higher than the base year (FY2016), but resulted in an improvement of five percentage points from the 21% increase in FY2023. With the increase in production volume, CO_2 emissions in Scope 3 (Category 1) have also increased, and FY2024 did not yield any tangible advancement toward achieving our target by FY2030. In order to reduce

emissions, we conducted interviews and surveys with 20 suppliers in and outside Japan as our engagement activities. We shared our reduction targets, and now we are collecting information about CO_2 emission intensity related to the products supplied to us.

In FY2024, in response to the growing interest in decarbonization from society as a whole and heightened expectations from customers and stakeholders, we revised the Group's environmental vision targets for CO_2 reduction. Our new long-term target is to achieve net-zero greenhouse gas emissions from our business activities by FY2050, while for our short-term targets by FY2030, we have set reduction targets aligned with the 1.5°C climate change target. In addition, we have established new reduction targets related to FLAG sectors.

Total annual CO_2 emissions (Scopes 1 & 2) and CO_2 emissions intensity



Next steps

Our Group has been successfully reducing CO_2 emissions since the base year (FY2016). Starting in FY2025, we will undertake the following activities to achieve the new targets, as we work towards a decarbonized society.

- Further reduce Scope 1 and 2 emissions
  - Continue energy conservation and introduction of renewable energy
  - Investigate energy management initiatives at Group companies in Japan
  - Further introduce the internal carbon pricing system at Group companies outside Japan
- Further reduce Scope 3 emissions
  - Continue conducting supplier engagement
- Collect information on reduction methods regarding the FLAG sectors

Specific initiatives

Energy management in Japan

Group companies in Japan, excluding the former Fuji Oil Holdings Inc., continue to implement energy management and improvement activities as part of our Environmental Vision 2030 efforts. More specifically, the Energy Management Delegate Committee, which is attended by energy management supervisors from each site, has shared updates on the outlook for CO_2 emissions reduction, plans for making purchased electricity carbon-free, and topics related to the environment in and outside Japan, such as amendments to Japan's Energy Conservation Act[*1] and COP29. In addition, through the energy-saving patrols that were started in FY2023 and continuously implemented, we are actively improving energy losses such as air leaks detected during the patrols. With the aim of raising the overall level of energy savings, these initiatives have been expanded to other factories. Owing to these activities, we have also achieved the objectives[*2] under Japan's Energy Conservation Act in terms of data reported in FY2024 (FY2023 results).

To achieve the targets of the Environmental Vision 2030/2050, we plan to upgrade the cogeneration equipment*3 at the Hannan Business Operations Complex*4 in 2025 as a measure to further reduce CO_2 emissions significantly. This equipment has been modified so that it is capable of hydrogen co-firing. We are keeping a close eye on developments in the hydrogen supply chain and aim to utilize hydrogen at the appropriate time for fuel conversion.

*1 The Revised Energy Conservation Act refers to the Act on Rationalization of Energy Use and Shift to Non-fossil Energy, which came into effect in April 2023.

*2 These objectives aim to reduce the average energy intensity by more than 1% over five years.

*3 Cogeneration equipment is a system that generates electricity from turbines and other methods using fuels such as natural gas and oil, while simultaneously recovering the waste heat produced during the process (partially modified description from Japan's Ministry of Economy, Trade and Industry website).

*4 This project was selected for a subsidy in the FY2022 to support project costs for promoting energy efficiency investment and demand structure transformation.

Enhancing the energy efficiency of production equipment

We implemented the following initiatives in FY2024 to enhance energy efficiency:

- At Fuji Oil Co., Ltd., we reused waste heat recovered from production processes as a heating source for other processes in an effort to conserve energy use.
- At the Hannan Business Operations Complex of Fuji Oil Co., Ltd. (Japan) and at Omu Milk Products Co., Ltd. (Japan), we installed new IoT-based air conditioning automatic control technology to conserve energy use while still maintaining a comfortable indoor environment.
- At Tianjin Fuji Protein Co., Ltd. (China), we improved energy efficiency by replacing steam traps and upgrading drying equipment.
- At Fuji Oil (Zhang Jia Gang) Co., Ltd. (China), we saved energy use by effectively utilizing waste heat as a heat source for tank tracing.
- At Blommer Chocolate Company (U.S.), we saved energy use by introducing waste heat recovery units at air compressors and improving lighting efficiency.

Introducing renewable energy

GRI: 302-4

Of the Group's 20 production sites, 12 are now equipped with solar power generation. In FY2024, we began utilizing solar power generation at Fuji Oil Ghana Ltd. At Blommer Chocolate Company (U.S.), we partially use renewable energy in accordance with the laws of Pennsylvania and California where our production sites are located, and we also purchase Renewable Energy Certificates (RECs). At the Hannan Business Operations Complex and Chiba Plant of Fuji Oil Co., Ltd, as well as at Fuji Oil Ghana Ltd., we have installed biomass boilers that utilize byproduct oil generated during manufacturing processes as fuel, thereby contributing to the reduction of CO_2 and waste. And to make further use of this kind of fuel, we have kicked off an initiative to separate oil from oily wastewater. At our Tokyo Regional Office, we have purchased so-called Green Power Certificates*1 equivalent to the amount of electricity used. As a result, the corresponding amount of electricity is considered to be derived from natural energy that does not emit CO_2, which means we achieved a reduction of approximately 30 tons of CO_2-equivalent emissions at this location in FY2024. As a result of these efforts, the share of renewable energy in our electricity usage has reached 6%.

PV panels installed at Fuji Oil Ghana Ltd.

*1 Green Power Certificates: A certificate issued to indicate the added environmental value of renewable energy

Activities to reduce Scope 3 emissions

To reduce Scope 3 CO_2 emissions, we have conducted interviews and surveys to engage with 20 supplier companies around the world, which make up approximately 9% of our Scope 3 (Category 1) emissions. Along with encouraging understanding of the importance of reducing CO_2 emissions, and our Group policies, environmental targets and reduction activities, we had them share with us their own CO_2 reduction targets and initiatives.
We will continue to engage with suppliers so that the effects of their CO_2 reduction efforts can be reflected in our Group Scope 3 calculations, in efforts to reduce CO_2 emissions throughout the supply chain.

Fighting climate change with energy-saving air conditioning systems: Harald's Mundo Plant wins award for innovation

The Mundo Plant of Harald Indústria e Comércio de Alimentos Ltda (Brazil) received a Climate Innovation Award from SMACNA*1 and ABRAVA*2 in October 2024. This award recognizes the outstanding performance of the company's new energy-saving air conditioning system. Jointly developed between Harald and the air conditioning contractor, The system has improved not only energy efficiency but also workplace comfort, productivity and sustainability.

*1 SMACNA (Sheet Metal and Air Conditioning Contractors' National Association) is an international industry organization representing sheet metal and air conditioning contractors based in the U.S.

*2 ABRAVA (Associação Brasileira de Refrigeração, Ar Condicionado, Ventilação e Aquecimento) is the leading industry organization in Brazil for refrigeration, air conditioning, ventilation, and heating.

Related documents

ESG Data Book (PDF 411KB)