# Environment

The KWE Group is addressing the material topics of emissions and energy in the environmental area, moving ahead step by step on a variety of measures to achieve carbon neutrality by 2050.

In FY2023 we reduced Scope 2 emissions in Japan to virtually zero with ongoing purchases of renewable energy certificates, started the KWE Green Consolidation service allocating the environmental value of sustainable aviation fuel (SAF), as well as acting on other environmental initiatives from a business perspective. We will continue to focus on solving environmental issues through our business as we move closer to realizing our long-term vision to become a global top 10 solution partner.

# Material Topics

## Emissions Reduce $CO_2$ emissions to address climate change

## Energy Promote the use of green energy


| Objectives | Progress in FY2023 | FY2024 Onward |
|---|---|---|
| ■ Reduce $CO_2$ emissions<br>■ Promote the use of green energy | ■ Started measuring KWE Group $CO_2$ emissions on a consolidated basis<br>■ Submitted SBTi (Science Based Targets Initiative) commitment letter, formally accepted<br>■ Earned CDP score of B, our highest so far<br>■ Reduced Scope 2 emissions in Japan to virtually zero with ongoing purchases of renewable energy certificates<br>■ Started KWE Green Consolidation service allocating the environmental value of SAF to customers in order to reduce Scope 3 emissions<br>■ Expanded participation in SAF programs with an additional contract with Cathay Pacific Airways and a new program with Shell Aviation<br>■ Participated in SAF promotion "Fry to Fly Project" using waste cooking oil as feedstock<br>■ Promoted modal shift to anti-vibration transport with Zero-G Cargo<br>■ Formally joined the Smart Freight Centre<br>■ Promoted shift to interior LED lighting and updated elevators<br>■ Promoted shift to LED lighting<br>■ Promoted rail transport<br>■ Promoted using trucks fueled by hydrotreated vegetable oil (HVO)<br>■ Promoted container round use for sea freight | ■ Receive third party certification of Scope 1 and 2 $CO_2$ emissions at KWE locations outside Japan<br>■ Collect Scope 3 data on a consolidated basis, received third party certification, set reduction targets<br>■ Draft roadmap to achieve carbon neutrality by 2050<br>■ Expand participation in SAF programs, including new IAG Cargo program, and in demonstration projects<br>■ Keep on promoting SAF using waste cooking oil as feedstock.<br>■ Keep on promoting SMF use<br>■ Contribute to more widespread use of biofuels and establishment of international standard by providing knowledge on SAF to the Smart Freight Centre<br>■ Promote shift to LED lighting<br>■ Promote rail transport<br>■ Promote using trucks fueled by hydrotreated vegetable oil (HVO)<br>■ Promote container round use for sea freight |

# Emissions & Energy

## Concept/Policy

### KWE Group Environmental Policy

In addition to our corporate philosophy to contribute to the development of a global community through logistics services, KWE Group sets forth the following policy to conserve the earth's valuable natural resources and strive to preserve the environment:

1. We promote global pollution prevention.
2. We comply with the environmental protection laws, regulations, and requirements in each country in which we operate.
3. We define the following items as the key environmental management objectives related to business activities:
   - Reducing greenhouse gas emissions
     - Reducing electricity consumption
     - Reducing exhaust from vehicles and equipment
   - Reducing waste and promoting recycling
4. We work to prevent environmental pollution in cooperation with clients, affiliated companies, and subcontractors.
5. We make KWE group employees and the public aware of our environmental protection policy through internal and external communications.

## Progress

Over the 76 years since its founding, the KWE Group has built an extensive global network for its forwarding business of 665 locations in 302 cities and 45 countries (as of March 31, 2024). All our locations worldwide are focused on the short, mid, and long term targets that will result in achieving carbon neutrality by 2050.

Of our short term goals, we received third party certification of Kintetsu World Express (non-consolidated) Scope 1 and 2 $CO_2$ emissions for FY2022, started measuring those emissions on a consolidated basis group-wide in FY2023, and earned a CDP score of B in 2024. And in order to reduce Scope 3 emissions, we were the first forwarder in Japan to participate in sustainable aviation fuel (SAF) programs. In December 2023 we launched our KWE Green Consolidation service that allocates SAF environmental value to customers.

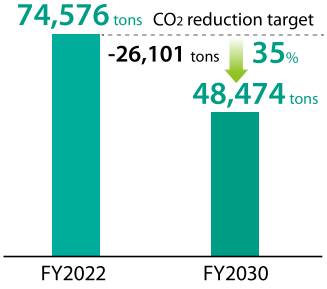
In the mid term, in FY2023 we set group-wide Scope 1 and 2 FY2030 reduction targets of at least 35% from FY2022 and issued a commitment letter to SBTi, which was formally accepted. Next we will be seeking third party verification of our Scope 1 and 2 $CO_2$ emissions at locations outside Japan as well as collecting data, getting verification, and setting reduction targets for our Scope 3 emissions on a consolidated basis.

We are steadily pursuing our short and mid term goals, and we are drafting a roadmap to ensure that we will achieve our long term goal of carbon neutrality by 2050.

**35%**

FY2030 reduction target
(vs FY2022 Scope 1 and 2)

**2050 Carbon neutral**




**Submission of commitment letter to SBTi, formally accepted**

**2050 Roadmap to carbon neutrality**

# Emissions & Energy — Disclosures Based on TCFD Recommendations

## Support of Task-Force on Climate-related Financial Disclosures (TCFD) Recommendations

In December 2021 KWE announced its support of the recommendations made by the Task- Force on Climate-related Financial Disclosures, an organization established by the Financial Stability Board to consider the financial impacts of climate change on business and financial planning. We analyzed the risks and opportunities for our business associated with climate change and continue to provide information to our stakeholders about the potential financial impacts. At this point in time our scenario analysis is as shown on the following page.

## Governance

The KWE Group Sustainability Committee, headed by the President & CEO, addresses basic policy, material issues, and risks and opportunities related to climate change. The committee meets at least twice a year, with additional meetings as necessary. The committee met four times in FY2023. The topics related to climate change that were discussed are shown below (FY2023 Agenda).

Committee members include our company directors, corporate department general managers, regional headquarters general managers, and representatives from APLL, ensuring diversity in its deliberations. Matters discussed and decided by the committee are presented to the Corporate Management Meeting[*1] and reported to the Board of Directors as needed.

Under the oversight of the Board of Directors, matters discussed and decided by the Corporate Management Meeting are disseminated to all divisions within the organization and reflected in their management plans and business operations.

### FY2023 Agenda Related to Climate Change

- Deliberation on Sustainable Aviation Fuel (SAF)
- Deliberation on committing to SBTi (Science Based Targets initiative)
- Deliberation on initiative plans
- Report on activity to reduce greenhouse gas emissions, including shift to LED lighting, shift to electric forklifts, and purchasing of renewable energy certificates
- Deliberation on GHG visualization tool

*1: The Corporate Management Meeting is composed of the Company's full-time directors, full-time Audit & Supervisory Board members, executive officers, and division managers. It meets at least twice a month to decide important matters related to overall business policy and the conduct of business.

*2: Below 1.5°C: IEA SDS, IPCC AR6, RCP2.6, etc.

*3: 4°C: IPCC AR6, RCP8.5, etc.

## Strategy

We have identified climate change as a mid to long term risk. We have analyzed long term scenarios to 2050 for potential impact on our business, with reference to International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC) scenarios (Below 1.5°C[*2] and 4°C[*3]) for risks and opportunities in order to consider the resilience of our business strategy and organization (see p.14).

## Risk Management

Our climate change-related risk working group is planning, implementing, and managing the progress of our response to the risks and opportunities we have identified. Scenario analysis began in February 2022 and is reviewed at least once a year. We are focusing on addressing the risks and opportunities shown on the next page (see p.14) based on likelihood and degree of impact. Climate change related risks will continue to be analyzed by the KWE Group Sustainability Committee, reported to the Corporate Management Meeting, and integrated into our overall risk management.

### Metrics and Targets

We are using GHG emissions ($CO_2$) as a metric to assess and manage the impact of climate-related risks on our business. We set the following FY2030 reduction targets for the KWE Group in August 2023. Scope 1 and 2 emissions in FY2022 and FY2023 were:

| | Emissions | |
|---|---|---|
| | Scope 1 | Scope 2 |
| FY2022 | 27,464 t | 47,112 t |
| FY2023 | 25,379 t | 47,871 t |

*All KWE Group companies (including APLL)

| Targets |
|---|
| Scope 1 and 2 |
| FY2030 35% reduction from FY2022<br>FY2050 Carbon neutrality |

## Assessing and Managing Climate-related Risks and Opportunities (Scenario Analysis)

| | Category | Risk | Business Impact | Timeframe | 1.5°C Scenario | 4°C Scenario | Strategy |
|---|---|---|---|---|---|---|---|
| Transition Risk | Policy and Legal | Carbon tax | Risk: Higher operating costs due to stricter national environmental regulations | Mid - long term | High | Low | ❶ Set GHG emissions targets and fulfill them on an ongoing basis<br>❷ Shift to eco-friendly vehicles and electric forklifts<br>❸ Change to renewable energy source electric power<br>❹ Pass along freight charges appropriately |
| | Technology | Next generation air, sea, and land vehicles | Risk: Higher operating costs due to development and introduction of new technologies | Short – long term | High | Low | ❶ Plan investments while monitoring social trends and new technology<br>❷ Participate in pilot programs and consider implementation while evaluating cost |
| | | | Opportunity: Lower carbon tax and other regulatory costs with reduced GHG emissions | Short – long term | High | Medium | |
| | | New fuels (such as SAF and bio-fuel) | Risk: Slower adoption and higher procurement costs with inadequate supply | Short - mid term | High | Low | ❶ Actively participate in SAF programs and promote social implementation<br>❷ Approach governments and associations toward increasing adoption in the industry |
| | | | Opportunity: Lower carbon tax and other regulatory costs with reduced GHG emissions | Mid - long term | Medium | Low | |
| | Market | Modal shift | Risk: Reduced revenue due to increase in use of sea and rail with higher demand for transport modes with less impact on the environment | Short - mid term | High | Medium | ❶ Develop sea and rail transport services in line with customer needs and build a business model adapted to the changing market<br>❷ Develop low environmental impact air transport products leveraging SAF in collaboration with airlines<br>❸ Propose low $CO_2$ emission routes and transport modes leveraging AI |
| | | | Opportunity: Development of new services and expanded business areas | Short - mid term | Medium | Low | |
| | Reputation | Corporate environmental reputation | Risk: Reduced revenue due to loss of orders and exclusion from bidding with falling reputation, negative impact on recruiting | Short - mid term | High | Low | ❶ Work on improving reputation with customers by including active environmental initiatives in business strategy |
| | | | Opportunity: Increase in revenue by acquiring more business active environmental initiatives in business strategy with improved reputation, increase in opportunities to hire talented human resources | Short - mid term | High | Low | |
| Physical Risk | Acute | Extreme weather | Risk: Reduced revenue with fall in freight volume due to difficulty in providing transport services and increased recovery costs | Short - mid term | Low | High | ❶ KWE and service providers respond to flood and other damage in the case of logistics warehouses owned by KWE, and KWE coordinates with lessors to respond in the case of rented warehouses<br>❷ Select alternative forwarding warehouse facilities and routes to build a stable logistics network<br>❸ Manage risks in coordination with the KWE Risk Management Committee |
| | Chronic | Rising sea levels with rising average air temperature | Risk: Difficulty using ports and airports in low elevation areas. Also limited usable facilities. | Mid - long term | Low | High | ❶ Work with local authorities and business partners to respond to flood and other kinds of damage<br>❷ Manage risks in coordination with the KWE Risk Management Committee |

Feature

# Sustainable Cargo Transport

## KWE Green Consolidation Using SAF

We are making progress on reducing Scope 1 and 2 $CO_2$ emissions, however, most of our emissions as a forwarder are Scope 3, arising from cargo transport outsourced to airlines and shipping lines. We have been participating in sustainable aviation fuel (SAF)[*1] programs since 2021 in order to reduce those Scope 3 emissions.

We launched our new KWE Green Consolidation service in Japan in December 2023 to promote wider utilization of SAF, making use of its environmental value. This service offers our consolidation customers allocation of SAF environmental value along with third party verified emissions reduction certificates issued once a year. As a first step, the service is available for consolidation cargo outbound to Hong Kong every Tuesday from Kansai International Airport.

*1 Sustainable aviation fuel (SAF) is produced from biomass, waste cooking oil, tallow, and other replenishable resources, reducing life cycle $CO_2$ emissions by approximately 80% compared to conventional jet fuels.

## Promoting SAF in the Industry

Major airlines have set a goal of replacing 10% of fuel used with SAF by the year 2030, however, that is still less than 1% of aviation fuel consumption worldwide. Increased awareness and active participation by all stakeholders involved in air transport is needed to promote the use of SAF. Air freight accounts for almost 40% of KWE Group consolidated sales, and we will continue moving forward on reducing our Scope 3 emissions by participating in SAF programs and offering related services as a low-carbon transport option for our customers who are working to lower their impact on the environment. This will support the reduction of $CO_2$ emissions throughout the supply chain, the decarbonization of international transport, and assist in achieving carbon neutrality by 2050.

## SAF Program Participation

| | | | |
|---|---|---|---|
| |  |  |  |
| Date | September 2021 October 2022 | April 2022 August 2023 | October 2022 |
| Business partner | **All Nippon Airways** | **Cathay Pacific Airways** | **Lufthansa Cargo AG** |
| Program | SAF Flight Initiative: For the Next Generation | Corporate SAF Programme | Sustainable Choice – Bulk Agreement |
| Highlight | KWE used the first SAF cargo flight out of Japan and executed additional contracts for further $CO_2$ reductions | Executed additional contracts after participating in the first full-scale corporate customer SAF program in Asia (both passenger and cargo) | 100% carbon neutral transport (Well to Wake) accounting for emissions from fuel production to departure airport |

# Promoting Modal Shift with Zero-G Cargo Anti-Vibration Transport

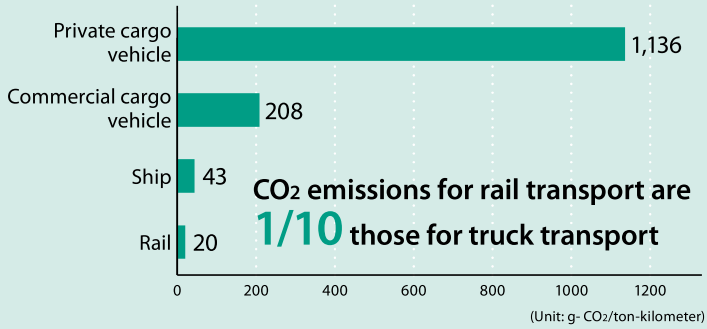
KWE has a wide range of transport service options, and we are working on a modal shift[*2] to address the increasing risk of the "2024 problem"[*3] facing Japan's trucking industry. As part of that effort, KWE is collaborating with Japan Freight Railway Company (JR Freight) and other businesses in the development of anti-vibration containers for railway transport, and we are now offering customers Zero G-Cargo service on the JR Freight network.

While rail is a promising alternative to trucking for cargo transport, problems caused by vibration such as product damage, scratching, and paper dust have been impeding a modal shift. Zero G-Cargo provides superior anti-vibration protection, making rail transport possible for precision equipment such as medical devices, electronic, telecom, and similar equipment easily damaged by vibration, and for food products vulnerable to shocks.

We are working with our customers to resolve problems such as greenhouse gas emissions and truck driver shortages by increasing the safety and reliability of rail transport in order to promote a modal shift, looking ahead to a sustainable future of stable and efficient logistics.

*2 The 2024 problem refers to the possibility that work-style reform laws effective April 1, 2024 capping vehicle driver overtime at a maximum of 960 hours a year may result in driver shortages, increased trucking charges, and higher logistical costs.
*3 The modal shift is a change in transport mode from truck and other vehicle transport to rail and ship with less environmental impact.

**$CO_2$ emissions for transport** (FY2022 cargo)




Source: Greenhouse Gas Inventory Office of Japan "GHG Emissions Data of Japan", and materials created by the MLIT Environmental Policy Division based on MLIT "Motor Vehicle Transport Statistics", "Air Transport Statistics", and "Railway Transport Statistics".

For more information about Zero G-Cargo anti-vibration transport service and the Zero G-Cargo series, see:
https://www.kwesales.co.jp/service/anti-vibration.html (Japanese version only)

| | | | |
|---|---|---|---|
| |  |  |  |
| Date | April 2023 | March 2024 | June 2024 |
| Business partner | **Shell Aviation** | **Japan Airlines** | **IAG Cargo** |
| Program | SAF Book-and-Claim Pilot Program | SAF Pilot Program | SAF Purchase Contract |
| Highlight | Uses blockchain technology to ensure secure allocation of SAF's environmental value to the parties involved | Demonstration project from SAF procurement through $CO_2$ reduction certificate issuing | Purchase environmental value for about 640,000 liters of SAF |

# Emissions & Energy— Specific Initiatives & Topics

## Decarbonizing with Electric Forklifts

Almost 75% of the forklifts required for KWE Group terminal operations are already running on battery power. We are continuing to change those still relying on fossil fuels such as gasoline, diesel oil, and LPG to electric power. KWE Ireland has been moving ahead on replacing fossil fuel with electric powered forklifts in order to achieve:

Electric forklift and charging station

- Reduced operational emissions
- Reduced running costs
- Reduced maintenance costs
- A greener, healthier work environment

## Power Consumption by All KWE Sites and Affiliated Companies in Japan is 100% Renewable Energy Sourced

We are working on a number of initiatives to reduce Scope 2 $CO_2$ emissions, the greenhouse gases associated with our energy consumption worldwide. In March 2024 Kintetsu World Express purchased renewable energy certificates as we did in FY2022 (with tracking)*1 totaling 25 million kWh, which reduced our Scope 2 $CO_2$ emissions of approximately 11,015 tons*2 in FY2023 to essentially zero. We will continue this initiative to shrink our $CO_2$ emissions in Japan, as well as others to reduce emissions from our business activities worldwide.


Renewable Energy Certificate

*1 FIT (Feed-in-Tariff) Renewable Energy Certificate: A certificate attesting to the environmental value of not emitting $CO_2$, including through electricity generated from non-fossil fuel sources such as solar power, wind power, and biomass.

*2 Greenhouse gas tonnage calculated using electric power company adjusted emission factors.

## Using the Green Power Certificate System and Supporting Renewable Energy

In 2023 we purchased a Green Power Energy Certificate*3 for 1,200,000 kWh of electric power for use at our Misato Green Warehouse in Japan. The Misato Green Warehouse is ISO 14001 certified for environmental management and has obtained LEED certification*4 for its green roof and walls, LED lighting, and other measures to protect the environment.


Green Power Certificate

*3 The Green Power Certificate System is a framework for trading renewable energy certificates that represent the environmental value of renewable energy. Certification is conducted by the Japan Quality Assurance Organization.

*4 LEED: Leadership in Energy and Environmental Design. Certification issued by the U.S. Green Building Council based on building operations, site management, energy efficiency, and other evaluation categories.

## 100% Renewable Energy at Our Headquarters in Japan

Our headquarters in Japan are located in Shinagawa Intercity in Tokyo. The building has earned superior ranking from the environmental performance Comprehensive Assessment System for Built Environment Efficiency (CASBEE) certification, and all the power consumption at this location from April 2022 onward is obtained from 100% renewable energy sources. In addition to improvements in the energy efficiency of the local area heating-cooling system, KWE switched to LED bulbs for shared lighting. Renewable energy sources for electric power, such as solar, can also be leveraged for RE100*6, when the environmental value is certified and tracked with renewable energy certificates*5 leading to further reductions in our Scope 2 emissions.

*5 Non-fossil certificate with tracking: A certificate attesting to the environmental value of not emitting $CO_2$, including through electricity generated from non-fossil fuel sources such as solar power, wind power, and biomass. Tracking information includes the identification of the type of energy source and the specific power plant generating the energy.

*6 RE100: A collaborative initiative in which businesses commit to 100% renewable energy for the electricity they use in their operations. By bringing together businesses as consumers, it is intended to send a signal to policymakers and investors to accelerate the energy transition.

## Third Party Verification of GHG Emissions

Our GHG emissions and energy consumption figures have been verified and certified since FY2021.

In FY2021 verification was conducted for Kintetsu World Express on a non-consolidated basis, and in FY2022 for all KWE locations in Japan.

In FY2023, our 2023 GHG emissions and energy consumption figures for all locations outside Japan were verified and certified by LRQA Group Limited based on ISO14064-3:2019 standards.

In the future we will expand the scope of third party verification to include Scope 3 emissions in order to increase the accuracy and reliability of our $CO_2$ emissions data.

【Period covered by the FY2023 verification】
April 1, 2023 - March 31, 2024
【Scope of verification】
Scope 1 and 2 greenhouse gas emissions and energy consumption for all locations outside Japan, including Kintetsu World Express on a non-consolidated basis

## Other Initiatives Across Our Global Sites

Below are some other initiatives we are taking to reduce emissions at our facilities worldwide with the aim of decarbonizing and reducing the risks of climate change.

Narita Terminal solar power generation

### Narita Terminal and Penang Logistics Center

We started generating solar power for use at our Narita Terminal in 2009. From 2017 to 2019 we replaced a total of 40 warehouse air conditioners with more efficient models and updated the office air conditioning equipment in 2020, resulting in reduced $CO_2$ emissions.

Our Penang Logistics Center in Malaysia installed a solar power generating system in January 2023, generating enough energy to cover about 40% of the center's electricity consumption.

Penang Logistics Center solar panels

## Participation in Japan Airlines SAF Pilot Program

In March 2024 KWE began participating in the JAL Corporate SAF Program as a launch customer. JAL has set a target of switching 10% of its aviation fuel consumption to SAF by the year 2030. This program for cargo transport and business travel visualizes actual $CO_2$ emission amounts, and issues third party SAF certificates for its corporate customers, aiming to reduce Scope 3 emissions. We will continue to partner with JAL to help promote the use of SAF and decarbonize the industry as a whole.

## Contract with IAG Cargo to Expand SAF Use

In June 2024 KWE signed a contract for expanded SAF use with IAG Cargo, International Airlines Group's cargo division, and purchased the environmental value for 640,000 liters of SAF. The SAF purchased is certified by ISCC (International Sustainability and Carbon Certification) and produced from used cooking oil and food waste, reducing lifecycle emissions by over 90% compared to conventional jet fuel. KWE will continue to leverage this kind of opportunity to decarbonize.

## Contract with ANA and Kyocera to Reduce $CO_2$ Emissions with SAF

In July 2024 KWE signed a contract with All Nippon Airways and Kyocera for the SAF Flight Initiative: For the Next Generation cargo program run by ANA. In 2021 KWE participated as a launch customer in ANA's SAF Flight Initiative to visualize and reduce indirect $CO_2$ emissions in the industrial value chain through air cargo transport using SAF. Since then, we have continued to purchase SAF $CO_2$ emission reduction environmental value from ANA to reduce our supply chain Scope 3 emissions. At the same time, we had discussions with ANA and other stakeholders, resulting in certification of the validity of the $CO_2$ emission reduction certificate issuance process, making it possible for ANA to issue certificates to the attention of both KWE and the shipper. The certificates are issued by ANA to shippers that use KWE consolidation services on ANA flights, after calculating the emissions based on actual usage and allocating SAF environmental value required for reduction. The shipper can then report their Scope 3 emission reductions to CDP and SBTi.

## Selected by Tokyo Metropolitan Government as Designated Forwarder for SAF Promotion and Corporate's Scope 3 Reduction Project

KWE applied for the Tokyo Metropolitan Government's SAF Promotion and Corporate's Scope 3 Reduction Project as part of its efforts to promote SAF, and was selected as a designated forwarder in August 2024. Under the program, TMG subsidizes part of the cost of SAF environmental value, which is in addition to the normal freight cost, on the premise that our customers purchase and use the SAF environmental value for air cargo transport to and from Haneda and Narita airports and receive a $CO_2$ emission reduction certificate issued by KWE (certified by a third party organization).

## Strategic SMF Partnership with Roper Rhodes

In August 2023 KWE UK entered into a strategic partnership with UK bathroom furniture and product supplier Roper Rhodes for the use of sustainable maritime fuel (SMF)*1. Under the program, SMF is used for cargo transport from China to Portbury, Somerset, in southwest UK, replacing conventional maritime fuel. KWE has been actively promoting SAF for some time (see p.15-16), and is now moving forward on promoting SMF in order to reduce $CO_2$ emissions in both air and sea transport.

*1 Sustainable maritime fuel is produced from biomass, waste cooking oil, tallow, and other sustainable resources, reducing life cycle CO2 emissions.


## KWE Participates in Fry to Fly Project

KWE participated in the Fry to Fly Project in December 2023. The project was established by the participation and partnership between JGC Holdings and a wide variety of businesses, local governments, and associations, with the aim to create a world where aircraft fly fueled by SAF made from used cooking oil. Almost no waste cooking oil from individual households is recycled in Japan, unlike that from restaurants, and about 100,000 tons of the waste oil actually collected is exported outside the country. KWE is actively involved in promoting participation from individual consumers and all other stakeholders in the stable manufacture and supply of SAF, and in creating the environment for the collection of waste cooking oil.


## Official Member of the Smart Freight Centre

In July 2023 KWE officially joined the Smart Freight Centre, an international non-profit organization in The Netherlands dedicated to reducing greenhouse gas emissions from freight transportation. With an ambitious goal of reducing global greenhouse gas emissions from freight transport by 1 billion tons by 2023, and zero emissions by 2050, the SFC is developing guidelines for calculating emissions and setting reduction targets specific to various sectors of the logistics industry. Before becoming an official member, KWE participated in the SFC's SAF Book & Claim demonstration project*2 in April 2023. KWE provided its knowledge on SAF to the SFC, helping to promote SAF and other biofuels and set international standards.

Smart Freight Centre

*2 The Book & Claim demonstration project verified the reliability of the book and claim model allocation SAF environmental attributes to users, utilizing the block chain technology system developed by Shell Aviation, the aviation fuel division of the major petrochemical company Shell PLC.

## HVO Fuel for Truck Transport

We are promoting the use of hydrotreated vegetable oil (HVO) fuel for trucks to reduce our Scope 3 CO2 emissions. The use of HVO vegetable and waste cooking oil as a sustainable, non-fossil fuel for trucking has many benefits:

- Up to 90% reduction in GHG emissions compared to conventional diesel fuel
- Functions well in every kind of diesel engine, without modifications
- HVO is odorless, contributing to a pleasant working environment
- Easy to use in lower temperatures with reduced exhaust outputs
- Easy to store without diminished quality
- Helps reduce noise levels by 1 - 3 dB at all times compared to conventional fuel

The widespread use of this type of alternative fuel is advancing, particularly in Europe.

KWE Benelux started providing HVO fueled truck transport to major high-tech customers in February 2023, reducing trucking emissions by 90%.

Truck transport using HVO

## KWE Thailand Gets New EV Trucks

In June 2024 KWE Thailand introduced electric vehicle trucks (one van, two 4-wheel trucks, and two 6-wheel trucks) and installed charging stations at KWE Thailand headquarters and the Navanakorn Distribution Center. The Thai government has set a goal of 30% of domestic automobile production being EV by the year 2030, so more and more delivery vehicles are sure to be EV in the future. The KWE Group is moving forward on reducing $CO_2$ emissions by using EV trucks for pickup and delivery in Bangkok and the Navanakorn district.


New EV trucks

## Reusable Containers and Matching Services

We are promoting reusable container use and matching service for sea freight to help reduce Scope 3 emissions. Reusable containers in this context means using empty import containers for export from the destination instead of immediately returning them to the origin. This technique reduces the cost of shipping and the burden on the environment. Container matching services find the optimal match between an empty container and export cargo, facilitating container reuse.

KWE Indonesia was able to reduce annual GHG emissions by 35 tons in FY2022 by reusing containers with the help of matching services. We will roll out the use of this technique to more sites worldwide to reduce our Scope 3 $CO_2$ emissions.

## Promoting Shift to Rail Transport

Rail transport (terminal station image)

Shifting shipping transport modes from air, sea, and truck to rail where possible is an effective way to reduce KWE's Scope 3 $CO_2$ emissions. In May 2021, KWE Japan began actively pursuing domestic rail shipping options, both to reduce environmental impacts and to secure domestic cargo capacity.

In collaboration with Japan Freight Railway Company, we provided rail transport to a customer in July 2022 that had previously been using trucking to ship from Tokyo to Niigata. This solution was possible in light of increasing awareness of the importance of decarbonization, and as a way to address the 2024 problem concerning trucking in Japan. The customer was eager to collaborate, stating that they wanted to help fulfill their social responsibility as a corporation, despite lead times for rail being longer than those associated with trucking. Niigata is about 350 km away from the Port of Tokyo. Using rail instead of trucking between these locations reduced per-shipment emissions by 75%. We will continue to actively offer our customers the option of rail instead of truck for long-distance transport in order to reduce Scope 3 $CO_2$ emissions.

## KWE $CO_2$ Calculator

The KWE $CO_2$ Calculator went online in June 2022, providing customers with estimated $CO_2$ emissions for their air and sea shipments and helping to visualize Scope 3 emissions, as part of our worldwide decarbonization efforts. The online calculator uses data from EcoTransIT World provided by IVE mbH[*2], using shipment origin, destination, and cargo volume inputs. KWE customers can enter their shipment waybill number to

Container Matching Services


After arrival, imported freight is devanned[*1] at customer site A

The empty container is moved to customer site B, matched to optimal export cargo and then exported

*1 Devanning: Unloading a container

get an estimate. As part of its responsibility as a freight forwarder, KWE is working on setting specific targets and goals to reduce direct $CO_2$ emissions from its operations (Scope 1 and 2). We are also taking the first step to reduce our indirect emissions (Scope 3) that result from customer use of KWE-purchased airline and ocean carrier services by enabling the visualization of greenhouse gas emissions using the KWE $CO_2$ Calculator.


KWE $CO_2$ Calculator

*2. The EcoTransIT World $CO_2$ calculator provided by IVE mbH is used by over 120 international freight forwarders and other global enterprises to estimate greenhouse gas emissions attributable to cargo transport.

## KWE Thailand is Recycling Resources

In June 2022 KWE Thailand joined Canon Marketing (Thailand) Co., Ltd. in a corporate social responsibility activity, presenting Canon with plastic bottle caps for its charitable recycling program. The bottle caps are recycled, after which the plastic is re-processed to make items like tableware. These items are then donated to orphanages or other charities. In November 2022, KWE Thailand donated plastic drink bottles to a Buddhist temple that is in charge of a recycling program to help protect the environment and recover resources. The plastic bottles are made into synthetic fiber which is used to make clothing and small cloth items. KWE Thailand will continue participating in these kinds of activity in the future and increase its efforts to recycling resources.

Canon Marketing (Thailand) and KWE Thailand employees

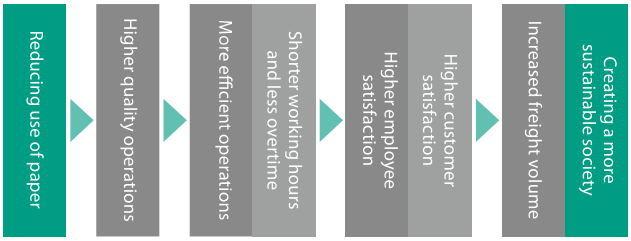
Plastic bottles collected for recycling

## Reduced Use of Paper

KWE is actively reducing the use of paper documents in its operations. This initiative serves not only to reduce the environmental impact of operations but also to improve service quality with reduced operation times, higher employee and customer satisfaction, and more business in the future.

Kintetsu World Express in Japan has been working on digitizing internal forms and procedures since 2021. The Company is seeing positive results from improved efficiency while saving over 50,000 sheets of paper annually.

KWE recently performed a trial run of automatically sending selected documents to the customer in electronic format instead of paper. This trial resulted in clear benefits including fewer delays at KWE and fewer reminders from customers. "Going paperless" also creates the opportunity to streamline verification and other manual operations as well, for even higher quality in the future.




## Business Card Material Contributes to Sustainability


FSC certification logo

KWE started using FSC* certified paper for business cards for KWE employees in Japan in March 2024. Using FSC certified paper indirectly helps address climate change by preserving biodiversity. And showing the FSC logo on the cards helps raise awareness of environmental issues and KWE sustainability efforts among employees and customers.

* FSC is the Forest Stewardship Council established in 1994. The FSC logo shows that lumber, wood products, and paper products come from forests managed under global standards for sustainability.

# Biodiversity— Specific Initiatives & Topics

## KWE Indonesia Plants 100 Mangroves

In July 2023 thirty KWE Indonesia employees helped plant 100 mangroves at Mangrove Ecotourism Centre PIK in North Jakarta. Mangrove forests play an important role in lowering the risk of climate change and preserving biodiversity with the capacity to absorb and store carbon dioxide, and providing a rich environment for living organisms. After learning about the benefits of mangrove forests, the participants had the opportunity to deepen their understanding by actually planting mangrove saplings. KWE Thailand intends to continue participating in this kind of activity to promote biodiversity.

KWE Indonesia staff

Planting mangroves

The newly planted mangroves

## KWE Thailand Plants Mangroves in Klong Kone

In March 2024 ten KWE Thailand employees participated in planting trees at the Klong Kone Mangrove Forest Conservation Center in Samut Songkhram in central Thailand. The KWE Thailand employees worked alongside staff from Canon Marketing (Thailand) and its affiliated companies as well as other participants to plan 1,000 mangrove saplings. The KWE Thailand domestic transport team also gifted the conservation center with tables constructed from wood leftover from pallet construction.

KWE Thailand staff