

Special Feature

Japan's first challenge toward addressing society and the future stated in our goals!

Sustainable Charter Flight

The JAL Group aims to create social and economic value by building relationships and connections through air transportation that goes beyond business realms. This is to realize "an society and future where many people and goods freely move around" as set forth in our goals. The JAL 2030 Sustainable Charter Flight (hereinafter the "Flight"), which operated in November 2022, symbolizes this concept. Working with various stakeholders, we took a challenge to operate a flight that leads to a sustainable future.



Voice

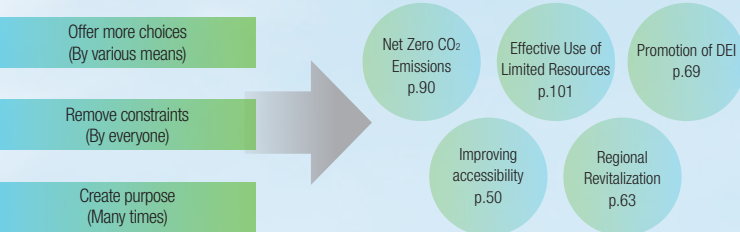


OGAWA Noriko, Vice President of ESG Promotion

Realizing a continuous transformation of our flights together with our customers

Preparations for this Flight were carried out under the slogan "Together with our Customers." Our customers kindly cooperated with carbon offsetting to achieve Net Zero CO₂ Emissions. To further reduce CO₂ emissions, our customers also made efforts to reduce baggage weight, get to the boarding gates early for on-time departures, pre-cancel inflight meals in advance, make reservations for inflight sales in advance, and we offered digitalized inflight magazines. In order to recycle the paper cups used for inflight drinks, we asked customers to cooperate in waste segregation. We also reduced the volume of plastics by changing the lid of the paper cups from plastic to paper. With the understanding and cooperation of our customers, this Flight was successful. This will not be a one-off effort but will be expanded to international flights and those operated by the Group airlines. By taking advantage of the awareness and discoveries gained through the implementation of this Flight, we will realize sustainable flights for 2030 and work together with the JAL Group to promote initiatives to create connections through air transportation.

Efforts to Provide Transport and Connections to Solve Social Issues



Bring Together Initiatives Related to Sustainability

While transportation is convenient, the environmental impact of flight operations has become a major issue. The JAL Group has declared Net Zero CO₂ Emissions by 2050 to realize a sustainable air transportation business. In addition to transportation, we also aim to create social and economic value by facilitating the flow of people, business, and goods, which are relationships and connections, through initiatives to offer more choices, remove constraints, and create goals by collaborating across business realms. This Flight, operated between Tokyo (Haneda) and Okinawa (Naha) in November 2022, is an action that symbolizes our concept in realizing our goals. With Net Zero CO₂ Emissions at the top of our list, navigators such as Professor Kanie Norichika of Keio University Graduate School, a leading researcher of SDGs, participated in this event, focusing on the effective use

of resources, promotion of diversity equity and inclusion (DEI), improving accessibility, and regional revitalization.

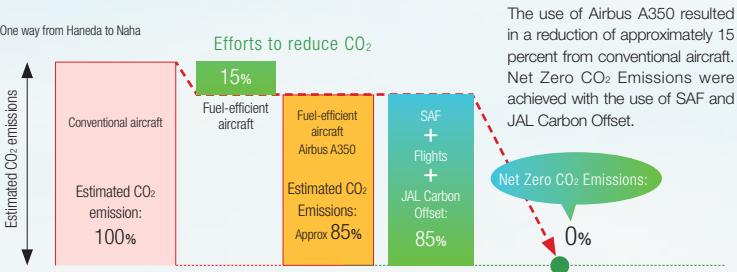
Practicing the Five Pillars for Future Flights

The Airbus A350-900, a state-of-the-art fuel-efficient aircraft was used for this Flight. Approximately 40 percent of the fuel used was sustainable aviation fuel (SAF), which reduces CO₂ emissions by nearly 80 percent compared to conventional jet fuel. We achieved Net Zero CO₂ emission by devising operational improvements such as efficient engine operations, and our customer's cooperation in JAL carbon offset, which compensated the CO₂ emissions during the flight. Regarding inflight services and giveaways, we made effective use of resources. Upcycled items such as baggage tags made from used JAL seat covers, and

tumblers made from Okinawa sugarcane pomace distributed as giveaways. Drinks were served in recyclable paper cups using paper lids, focused on the texture and durability. The cups and lids were collected after use. We served hamburgers made with soybean meat patty, which has a low environmental impact, as well as other menus that took water consumption and health into consideration. Many of employees played active roles in this Flight. Half of the cabin attendants were men, and employees with hearing impairments also served as cabin support staff and presented the outline of inflight talk session with sign language. Cabin attendants with in-house accessibility certifications and airport staff with Care-Fitter certifications serviced on the day, which promotes DEI and accessibility.

In terms of regional revitalization, we offered tours that allow visitors to experience the charms of Okinawa while taking the environment into consideration. In addition to preparing hotels with sustainable amenities made from recycled plastic and Okinawa sugarcane pomace, a portion of the tour fee was donated to preserve the natural environment in Okinawa. As the slogan of this Flight was A Sustainable Future Together, a future Net Zero CO₂ Emissions flight was realized not only by the JAL Group but also by co-creating with our customers, business partners, and local communities. The JAL Group will further accelerate our efforts to make all flights sustainable in order to realize "an society and future where people and goods freely move around".

Realizing Japan's First Net Zero CO₂ Emissions Flight



The use of Airbus A350 resulted in a reduction of approximately 15 percent from conventional aircraft. Net Zero CO₂ Emissions were achieved with the use of SAF and JAL Carbon Offset.



With the cooperation of all customers in JAL Carbon Offset, this Flight was able to compensate for CO₂ emissions by donating to CO₂ absorption projects.



Top: Hamburgers with soybean meat patty served as an inflight meal
Top right: A souvenir baggage tag made from used JAL seat covers and leftover Kariyushi fabric invented by JAL's engineers.
Bottom right: Cups and lids made from paper that acquired international certification in consideration with forest resources



In order to take advantage of the diverse abilities of our employees with various origins, two of our JAL SUNLIGHT's employees with disabilities served as cabin support staff on this Flight.

For more information about JAL2030 Sustainable Charter Flight, please visit our website.

WEB <https://www.jal.com/en/sustainability/sustainableflight221118/>

Sustainability Initiatives

-Enhance corporate value by increasing social and economic value through the promotion of ESG strategies

We will promote our ESG strategies while always being aware of how the JAL Group should be from social perspectives and how we can leverage our capital and strengths to influence the environment and society. We will accelerate a JAL-like sustainability by determining our social role in order to realize a future in which everyone can feel fulfilled and hopeful.

AOKI Noriyuki, Chair of Sustainability Promotion Committee



Key Sustainability Promotion Committee Members

From left in the back row, OMORI Yasushi, Senior Vice President of Mileage and Lifestyle Business, SAEDA Naohito, Senior Vice President of Human Resources, ABE Eri, Deputy Senior Vice President of Sales and Marketing, NAKAGAWA Yukio, Senior Vice President of Procurement, From left in the front row, TOTTORI Mitsuko, Senior Vice President of Customer Experience Brand Communication, AOKI Noriyuki, Chair of Sustainability Promotion Committee and Senior Vice President of General Affairs, SAITO Yuji, Senior Vice President of Corporate Planning Chief Financial Officer.

►Review of FY2022

ESG is now mainstream across the globe and it is changing rapidly with the demands of non-financial disclosure and the evolving of the regulations such as the CORSIA baseline. In the Medium-Term Management Plan Rolling Plan 2022, the JAL Group defined its ESG strategy, its long-term business strategy, to solve social issues and facilitate the flow of people, business, and goods, and has focused on transforming its business objectives. While drawing our future image, we are steadily promoting our initiatives after reviewing our main sustainability initiatives and performance indicators to promote business activities based on ESG strategies in business areas other than air transportation. The JAL Group has disclosed information in line with our initiatives which lead to the selection and assessment as a constituent of the ESG evaluation. In addition, the JAL 2030 Sustainable Charter Flight was a symbolic initiative and a good opportunity for our employees to experience sustainable flights as well as for our customers to see, learn, and experience sustainability.

►Considering the Impact on the Environment and Society

Initially when the Medium-term Management Plan was announced, the JAL Group focused on its own intentions and reasoning

regarding its ESG strategy. However, gradually the JAL Group changed its perspectives to on how the Group should be from a social outlook and what kind of impact we should exert on to the environment and society by leveraging our capital and strengths. We recognize that business and ESG should not be differentiated. As ESG is no longer exclusive, we are more aware of the impact that our business activities have on the environment and society. Thus we must change in order to continue to be the JAL Group that our shareholders call for. The Rolling Plan 2023 positioned the ESG strategy as the topmost strategy to realize value creation and growth. Based on the premise of reducing environmental impact, we aim to resolve social issues such as the decline of community life and the diminishing sense of well-being through the power of air transportation and societal connection, which are being reviewed with the COVID-19 pandemic. Going forward, we will hone in on JAL's unique efforts to collaborate across business realms. We hope to make strides toward initiatives with a sense of purpose that create both social and economic value through our business activities. In order to realize an exciting society and future in which people and goods can freely move around, our employees will work together while considering the impact on the environment and society.

(1) Overall Sustainability

Governance

The Sustainability Promotion Committee, chaired by the Senior Vice President of the General Affairs Division, is held on a monthly basis to review the progress of initiatives and discuss them among the relevant officers.

The Sustainability Promotion Council, established in 2021 with the President as Chair and attended by all Executive Officers, conducts management reviews and promotes ESG management under the following topics.

- Determine important issues and annual targets for sustainability initiatives, and monitor and evaluate the progress
- Determine risks and opportunities for climate change
- Monitor and evaluate Environmental Management System (EMS)
- Monitor and evaluate human rights due diligence

The Sustainability Promotion Council reports and discusses the agenda of the meeting with the Board of Directors. They will consult the important matters related to ESG promotion with the Board of Directors in order to enhance corporate value. In FY2022, TCFD, the results and reviews of DJSI, the ESG evaluation outline, materiality reorganization, initiatives based on external environmental changes and social requirements, additional and revised targets, among others, were discussed and reported to the Board of Directors twice in total. Based on the discussions in the Sustainability Promotion Council, ESG and GX strategies were separately discussed at the Board of Directors twice in the process of formulating the Medium-Term Management Plan Rolling Plan.



Strategies

Based on the value creation story, the ESG strategy is positioned as the topmost strategy in the Medium-Term Management Plan Rolling Plan 2023. It promotes company-wide initiatives.

Please see pp.49-50 for more information on ESG strategy, pp.67-74 for the human resources strategy, and pp.75-76 for the GX strategy.

* This chapter mainly refers to TCFD, information based on the recommendations of the TNFD, effective use of limited resources (reduction of single-use plastics and food waste), and efforts to respect human rights based on human rights due diligence.

The eight reorganized materiality issues are as follows. Please see pp.11-12 for details on materiality.

■Eight Key Materiality Issues Addressed by the JAL Group

Creating mobility and connections through business activities	Tourism Nation	Promoting economic growth and international mutual understanding through tourism
	Regional Revitalization	Bringing prosperity and vitality to the community
	Fulfilled Hearts	Enhancing happiness and cultivate an enriched life through free movement and connection of goods and people
	Resilience through Diversity	Building a diverse society in which people, cultures, values, and modes of behaviors are respected and new values are created
	Safe and Secure Society	Creating, developing, and protecting a safe infrastructure of the skies
	Aviation Infrastructure	Passing on the basis of sustainable air transport to the future
GX strategy	Precious Earth	Preserving and restoring the global environment, which serves as a source of people, sales and distribution channels, and to pass it on to the next generation
Human resources strategy	Human Capital	Enhancing capacity for value creation and productivity of all JAL Group employees
Foundation for value creation	Governance (Corporate Governance/JAL Group Code of Conduct)	

Risk Management

The JAL Group defines risk as an event or action that interferes with the achievement of the mission, objectives, and goals of an individual or an organization. Risk surveys and assessments are performed every six months.

The Sustainability Promotion Council deliberates risk management policies and necessary solutions for overall sustainability governance, including the environment. The details are reported to the Board of Directors.

(2) Key Initiatives (Metrics and Targets)

While covering the 17 SDGs, the JAL Group simultaneously organizes the ESG perspectives and the degree of impact through businesses and the importance for management is discussed at the Board of Directors. In FY2019, the JAL Group established four priority areas, namely the environment, people, local communities, and governance. 22 issues were addressed in each area and medium-term targets were set for each of the four areas and 22 issues. ESG management was promoted to achieve the SDGs.

In FY2021, the four preeminent initiatives (reducing CO₂ emissions, reducing single-use plastics, improving the ratio of female managers, and regional revitalization) were set as management targets (Sustainability). In FY2022, new indicators were added and disclosed along with past performances in order to promote our management strategy based on our ESG strategy in business areas other than air transport.

On the other hand, as the previous 22 issues in the 4 areas were mainly based on the FSC business, the link to social and economic values were not clear. In FY2023 they were revised into the eight materiality issues.

Key initiatives based on the 8 materiality issues include actions to create mobility and connections through business activities from the perspectives of increasing options, eliminating constraints, and creating objectives. Global environmental conservation initiatives such as the GX strategy to pass on the precious Earth to the next generation, human capital management aimed at by the human resources strategy, and governance as the foundation for value creation. Metrics and targets are set as follows. It is also possible to set quantitative numerical targets, and we have set items to promote with intention.

Among the disclosed items up to FY2022, prioritized items focused on tracking data trends are reflected in the ESG data.

Our company website provides information on key initiatives and achievements up to FY2022 that were included in last year's consolidated report.

WEB https://www.jal.com/en/sustainability/initiatives_sdgs/

Tourism Nation	Regional Revitalization	Fulfilled Hearts	Resilience through Diversity	Safe and Secure Society	Aviation Infrastructure		
	Action Items	Performance Indicators	FY2019 Results	FY2020 Results	FY2021 Results	FY2022 Results	FY2025 Targets
Creating Relationships and Connections Through Mobility	Increase in domestic passengers and cargo traffic	Increase ratio (Passengers)	—	-74.2% v.s.FY2019 *Excluding LCC	-59% v.s. FY2019 *Excluding LCC	-15% v.s. FY2019	+10% v.s. FY2019
		Increase ratio (Cargo)	—	-30 v.s. FY2019	-34% v.s. FY2019	-17% v.s. FY2019	
	Maintenance and development of regional route networks including outlying island routes	Number of domestic entry points (including code share)	62 points	61 points	61 points	64 points	More than 65 points
	Expansion of services provided through increased contract orders	Number of passenger and cargo flights regarding ground handling for foreign carriers	87,000 flights	9,000 flights	17,000 flights	29,000 flights	128,000 flights
	Promoting the use of domestic flights to in-bound tourists	Number of users	701,240 people	49,188 people	121,844 people	582,180 people	1,505,000 people
	Drone logistics and commercialization of eVTOL Air Taxi	Commercialization	—	—	—	—	FY2023:Commercialization of drone delivery FY2025:eVTOL commercialization
	Promoting air travel to customers who find it difficult to travel	Ratio of such passengers onboard	0.36%	0.29% (0.8 times v.s. FY2019)	0.64% (1.8 times v.s. FY2019)	0.71% (1.9 times v.s. FY2019)	2.5 times v.s. FY2019 results
		Number of wooden wheelchairs which go through metal detectors	478 units	478 units	478 units	508 units	580 units
	Enhancing pharmaceutical transportation	Transport weight	610 tons	721 tons +18% v.s. FY2019	1,172 tons +92% v.s. FY2019	1,363 tons +123% v.s. FY2019	+50% v.s. FY2019
	Promoting Workstyle Research with Outside Stakeholders	Number of member organizations of study groups	—	—	—	52 organizations	200 organizations
	Promoting JAL Wellness & Travel	Number of municipal partnerships	—	—	—	4 cases	10 cases
	Strengthening planning and sales of recycled products in cooperation with companies outside the JAL Group	Number of affiliated companies	—	—	—	—	15 companies
	Promoting Dokokani Mile	Cumulative number of users	—	—	—	540,000 people	810,000 people
	Creating flow of people through the development of subscription -type travel programs	Number of users	—	—	—	—	250% of FY2022
Precious Earth							
Addressing Climate Change	Reducing total amount of CO ₂ emissions	Scope 1 [Aviation] Emissions	9.09 million tons	4.39 million tons	6.19 million tons	8.19 million tons	Less than 9.09 million tons
		CO ₂ emissions per paid ton kilometer (RTK)	1.0648 kg-CO ₂ /ton kilometers	1.3763 kg-CO ₂ /ton kilometers	1.2751 kg-CO ₂ /ton kilometers	1.0829 kg-CO ₂ /ton kilometers	0.8187 kg-CO ₂ /ton kilometers
		Scope 2 [Ground facilities] Emissions	57,000 tons	51,000 tons	53,000 tons	56,000 tons	54,000 tons
		Percentage of fuel-efficient aircraft	82%	84%	85%	86%	86%
		Ratio of SAF to total fuel	Loaded in all five A350 delivery flights	Domestically produced SAF loaded on domestic scheduled flights	•Loaded on four A350 delivery flights •Loaded simultaneously on two types of domestically produced SAF for domestic scheduled flights	0.004%	1% of all loaded fuel
		Reduction through JAL Green Operations promotion (CO ₂ reduction through operational ingenuity)	157,000 tons (1.7% of emissions)	82,000 tons (1.8% of emissions)	142,000 tons (2.3% of emissions)	195,000 tons (2.4% of emissions)	Reduction equivalent to 2.5% of CO ₂ emissions from aircraft
		Number of JAL Carbon Offset website visitors	—	—	Tracked from FY2021	13,122 people (1.5 times v.s. FY2021)	30,000 people (3.4 times v.s. FY2021)
		Number of Carbon Offset users	—	—	Tracked from FY2022	385 people	2,000 people (5.2 times v.s. FY2022)
Effective Use of Limited Resources	Reduction of plastic	Reduction ratio of new petroleum-derived single-use plastic items in in-house standard products used inflight and in lounges	2.5%	10.4%	25%	45%	100%
		Use of environmentally friendly materials in single-use plastics used in airports and cargo transportation	*Starting from FY2020	87.6%	90%	91%	100%
	Reduction of inflight meal waste	Yield improvement	—	—	—	—	Less than 4.5%
	Paper reduction	Electronic AWB (Air Waybill)	—	—	25%	62.5%	Finalized JAL flight e-AWB

Precious Earth							
	Action Items	Performance indicators	FY2019 Results	FY2020 Results	FY2021 Results	FY2022 Results	FY2025 Targets
Precaution of Environmental Pollution	Industrial waste reduction	Final disposal ratio	0.3%	0.6%	0.3%	0.6%	Keep below 1%
Noise Reduction	Low-noise aircraft operations	ICAO Chapter 14 standard compliant aircraft ratio	45%	40%	41%	42%	46%
Tourism Nation Regional Revitalization Biodiversity Conservation	Conserving and expanding tourism resources	[Okinawa] Proliferating and regenerating sexually reproducing corals	—	—	—	—	1,000 clusters by 2026
	Utilization of certified commercial materials	Ratio of paper items with international certification in consideration with forest resources	15.9%	66.5%	66.5%	87.8%	100%
	Preventing illegal wildlife trade	Number of illegal wildlife transports	0	0	0	0	0
	Consideration biodiversity in foodstuffs and commodity products	Number of violations of in-house guidelines for ESG risks in foodstuffs and products	—	—	—	0	0
	Reducing ecosystem impact around the airport	[Tokyo] Number of incidents of inappropriate management of water containing hazardous substances	—	—	—	—	0
Human Capital							
Human Resources Portfolios	Forming dynamic human resources portfolios	Manpower allocation to growing business areas	—	—	+2,000 people	+2,200 people	+3,500 people v.s. FY2019
DEI	Promoting divers human resources	Ratio of women in management	18.4%	19.5%	21.9%	22.8%	30% <div>Management targets</div>
		Employment ratio for persons with disabilities*1	2.62%	2.67%	2.64%	2.75%	3.2%
		Percentage of men taking childcare leave*2*3	81.8%	106.3%	99.3%	87.2%	100%
Careers/Reskilling	Providing opportunities for growth and learning	Internal relocation through open recruitment	—	—	—	30 people/year	100 people/year
		Training cost per person	¥449,480/person	¥109,321/person	¥84,469/person	¥138,651/person	¥338,000/person
Engagement	Increasing engagement	Percentage of highly engaged employees	54.4%	54.4% (no survey)	51.7%	51.7% (no survey)	64.4%
	Improving labor productivity	Sales per capita	—	—	-50%	-2%	+15% v.s. FY2019
		Total work hours*2	1,862 hours/person	1,878 hours/person	1,890 hours/person	1,884 hours/person	1,850 hours/person
		Percentage of usage of annual paid leave*2	79.0%	71.5%	74.5%	81.0%	100%
		Average number of hours of overtime and holiday work per month*2	9.5 hours/person	8.0 hours/person	9.9 hours/person	10.5 hours/person	4 hours/person (linked to 1,850 hours of total annual labor)
	Improving the ratio of health check-up	Employee consultation ratio	100%	100%	100%	100%	Maintaining 100%
		Family consultation ratio*5	37.5%	36.0%	40.7%	Disclosed during FY2023	75%
		Ratio of mammography*2	36.7%	43.4%	64.6%	65.5%	70%
		Uterine cancer screening*2	30.7%	38.6%	58.4%	60.5%	60%
Respect for Human Rights Resilience through Diversity	Conducting human rights due diligence	Implementation ratio of human rights due diligence	—	—	—	100%	100%
	Respect for human rights of suppliers	Completion of human rights investigations of new key suppliers	—	—	—	—	100%
	Respect for human rights of customers	Attendance ratio of education related to respect for human rights	—	—	—	81.9%	100%
	Respect for human rights of employees	Ratio of employees who work long hours	—	—	—	1.98%	0%
Disclosure and Dialogue	Strengthening the dissemination of information on corporate website sustainability pages	Number of views	765,912	786,229	893,469	840,170	1 million or more
	Strengthening the dissemination of information to individual shareholders and investors	Number of registered individual shareholders on the email newsletter list	—	—	1,805 people	7,464 people	15,000 people
Promoting Fair Business Activities	Preventing information leakage	Number of incidents	0	2*4	0	2	0
	Number of Incidents to Prevent Corruption and Bribery	Number of incidents	0	0	0	0	0
Promoting Responsible Procurement Activities	Supply Chain Management	Confirmation ratio of integrity of critical suppliers	18%	37%	62%	81%	100%
		Number of aviation security audits of all caterer factories and machine supply depots	2	2	2	2	2
Enhancement of BCM	Improving the effectiveness of BCP	Number of BCP-based exercises	1	1	4	4	2

*1 Total value of Japan Airlines Co., Ltd. and JAL Sunlight Co., Ltd., a subsidiary that hires people with disabilities
*2 Japan Airlines Co., Ltd. only
*3 Calculated based on the number of people in childcare leave applicants before FY2021
*4 Number of information leakage incidents reported to authorities
*5 Until FY2020, the data was compiled for family members aged 35 and over. From FY2021, the data is compiled for family members aged 40 and over.

Environment

Basic Concept (JAL Group Code of Conduct)

Passing on the precious Earth to the next generation (global environment)

We maintain an awareness that air transport is responsible for a number of negative effects on the environment. To fulfill our responsibility of passing on the precious Earth to the next generation, we raise awareness of every employee and protect the environment in every aspect.

(1) Global environmental preservation initiatives

The JAL Group complies with laws and regulations and strives to address climate change, use limited resources effectively, prevent environmental pollution, reduce noise, and conserve biodiversity to reduce impacts on the environment. Furthermore, we pursue the development of environmentally-friendly technologies to solve environmental issues, in coordination with stakeholders.

(2) Disclosure of environmental information and stakeholder dialogue

The JAL Group actively discloses environmental information, maintains dialogue with stakeholders and expands environmental preservation initiatives across society.

JAL Group Code of Conduct "Commitment to Society"

WEB <https://www.jal.com/en/sustainability/codeofconduct/>

Challenges to be solved

▶ Addressing Climate Change pp.90-98

WEB

<https://www.jal.com/en/sustainability/environment/climate-action/>

▶ Biodiversity Conservation pp.99-101

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<https://www.jal.com/en/sustainability/environment/biodiversity/>

▶ Precaution of Environmental Pollution pp.101

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<https://www.jal.com/en/sustainability/environment/pollution-prevention/>

▶ Noise Reduction pp.101

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<https://www.jal.com/en/sustainability/environment/noise-reduction/>

▶ Effective Use of Limited Resources pp.101-102

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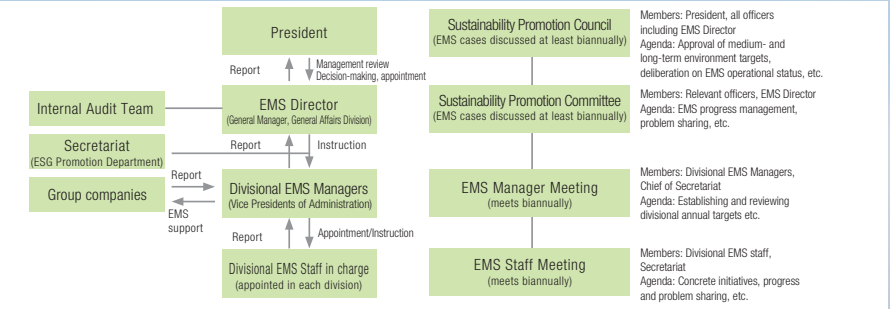
<https://www.jal.com/en/sustainability/environment/limited-resources/>

Environmental Management

Based on the JAL Group Environmental Policy, the Environmental Management System (EMS) is being constructed to accurately promote environmental conservation activities while making continuous improvements.

Targets and action plans are set for each company and division based on management targets, such as reducing CO₂ emissions and single-use plastics emissions. Quarterly reviews and annual internal audits are also conducted to confirm compliance, system conformity, and achievement of targets.

If a nonconformity is detected, corrective action, cause analysis, and an effectiveness review of the action are performed. In addition, urgent matters are dealt with within the framework of risk management programs. In 2021, JAL Royal Catering Co., Ltd., which provides in-flight meals, acquired ISO14001:2015, an international standard that specifies the requirements for an effective environmental management system.



Topic EMS Internal Audit Functions

In accordance with ISO14001, EMS internal audits confirm the status of the organization, target management, environmental laws and regulations, education and training, communication, document information, and preparedness and response to environmental emergencies. The contents of these audits are reported to the President at the management review. It also functions as a mutual communication between the environmental division, which serves as an internal auditor, and the division to be audited, leading to continuous improvement.

Addressing Climate Change

Particularly relevant areas **Passengers** **Cargo and Mail**

Basic Concept

The JAL Group recognizes that an action to climate change is a particularly important issue for the sustainability of the society. In June 2020, we announced our commitment to achieve Net Zero CO₂ Emissions by 2050 in order to steadily promote various initiatives including CO₂ emissions reduction as an air transport operator's responsibility. Also, we announced our support for the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) in February 2021, and for the Science Based Target (SBT) initiative in March 2022.



In accordance with the Medium-Term Management Plan Rolling Plan announced in May 2023, the JAL Group will work to achieve JAL Vision 2030 and sustainably improve corporate value by positioning ESG strategy as the topmost strategy in order to realize value creation and growth and by achieving medium to long-term growth through the management of risks and opportunities.

The JAL Group has established the JAL Group Environmental Policy based on this concept and a promotion system under this policy. As a corporate citizen, we are working to preserve the environment and remove impediments to our progress.

* Net Zero Emissions: To balance actual carbon emissions from business activities and carbon reductions through initiatives (including the use of emissions trading and Carbon dioxide Capture and Storage [CCS], the technology for capturing CO₂ for long-term storage).

For more information on the JAL Group Environmental Policy, please visit the JAL website.

WEB <https://www.jal.com/en/sustainability/environment-management/policy/>

Progress towards achieving FY2025 target

Important issue
Reduction of CO₂ emissions

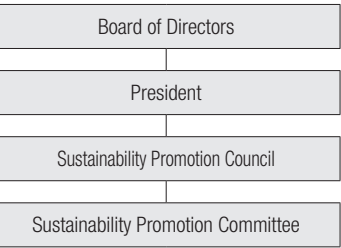
FY2025 management target
Total CO₂ emissions below 9.09 million tons

FY2022 Result
8.19 million tons

Governance

The JAL Group's Board of Directors demonstrates a strong supervisory function through the periodic reporting (four times in FY2022) on the execution of initiatives concerning climate change and biodiversity. In the execution, the Sustainability Promotion Council, chaired by the President, formulates basic policies, sets important targets, and manages progress, and deliberates and decides on policies to deal with issues. The Sustainability Promotion Committee, chaired by the Senior Vice President of the General Affairs Division, deliberates on individual issues identified through the environmental management system (EMS) and reports to the Sustainability Promotion Council. The Medium-Term Management Plan incorporates responses to climate change into its management strategy and defines the eight materiality issues for sustainability in general to address social issues through business. With a strong commitment to achieve sustainable business operations and corporate value improvement through steady efforts to address these issues, we reflect external ESG ratings and CO₂ reduction targets in executive remuneration as indicators.

Governance System



Issues Presented and Reported at the Board of Directors and the Sustainability Promotion Council in FY2022

- Progress in efforts to address climate change (Formulation of targets and annual results)
- Information disclosure in line with TCFD recommendations
- GX Strategy to achieve Net Zero CO₂ Emissions by 2050

For more information about officer remuneration, please refer to p.36.

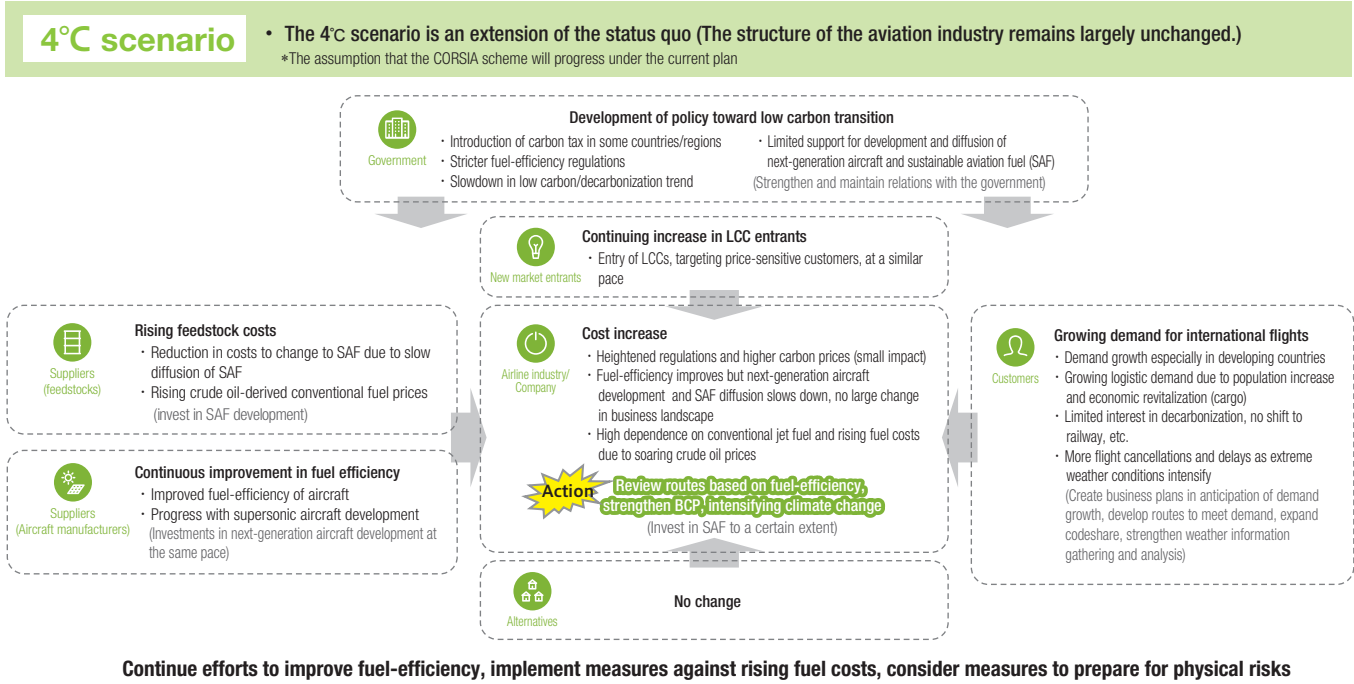
Special Feature	Sustainability Initiatives		Environment	Respect for Human Rights	
Addressing Climate Change	Biodiversity Conservation	Precaution of Environmental Pollution	Noise Reduction	Effective Use of Limited Resources	Special Feature

Strategy

■ Scenario Analysis

The international community is rapidly moving toward a 1.5°C scenario as the benchmark for climate change action, with tighter environmental laws and regulations in Europe, the return of the United States to the Paris Agreement, Japan's Carbon Neutral Declaration and major reviews of Nationally Determined Contributions (NDC), and the de facto 1.5°C target agreement at COP26. In 2018, the JAL Group participated in the Project to Support Analysis of Scenarios of Climate Risks and Opportunities in line with TCFD Recommendations organized by the Ministry of the Environment of Japan and predicted the society in 2030 based on two scenarios (RCP8.5*1, RCP2.6*2) of the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC), that is, keeping global warming to below 4°C and below 2°C by the end of the century.

*1 RCP8.5 Scenario: High-level reference scenario in the IPCC Fifth Report (equivalent to the maximum greenhouse gas emissions in 2100)
*2 RCP2.6 Scenario: Low-Level Stabilization Scenario in the IPCC Fifth Report (Lowest emissions scenario developed with the goal of keeping future temperature increases below 2°C)



Special Feature	Sustainability Initiatives		Envionment	Respect for Human Rights	
Addressing Climate Change	Biodiversity Conservation	Precaution of Environmental Pollution	Noise Reduction	Effective Use of Limited Resources	Special Feature

Risks and Opportunities

Climate change will have a negative impact on the air transport business, which is based on the premise of operating in a "safe and secure society," and as a result, it may pose an enormous risk to business continuity. In addition, the response to climate change, including the reduction of CO₂ emissions by airlines, may have various financial impacts, such as upgrading to fuel-efficient aircraft and responding to carbon pricing. The JAL Group organizes and examines these factors that affect its business in accordance with the TCFD classification of risks and opportunities related to climate change and lists them in the table below. The categories of "timing" and "impact at the time of event" are as specified right. The following was reviewed at the Board of Directors meeting on August 1^{st.}, 2023.

Classification	Time of Impact
Short-term	FY2023 to FY2025 (the period covered by the current medium-term management plan)
Medium-term	FY2026 to FY2030 (the period up to JAL Vision 2030)
Long-term	FY2031 to FY2050 (the period to achieve Net Zero CO ₂ Emissions)

Classification	Revenue or Cost Impact at the Time of Event (Annual)
Small	Less than 3 billion yen
Medium	3 billion yen to less than 30 billion yen
Large	30 billion yen or more

Risk

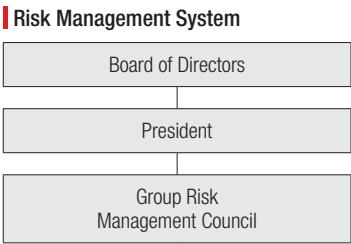
Types of Risk	Risks		Period of Event	Impact of Risk	Rsik Mitigation Actions
Transition Risks ✓ Policies and regulations ✓ Technology ✓ Market ✓ Evaluation	Emissions Trading	Increase in credit cost by stronger national CO ₂ emission regulations	Short to Long	Small to Medium	<ul style="list-style-type: none">• Procuring credits meeting CORSIA eligibility criteria at a stable and reasonable price• <Overseas> Participation in rulemaking (ICAO, IATA)• <Japan> Public-Private Partnership for Rulemaking through the Scheduled Airlines Association of Japan
	SAF	Shortages in supply due to delays in the development, manufacture and dissemination of SAF and bias in supply areas	Medium	Medium	<ul style="list-style-type: none">• Long-term, price-advantaged SAF procurement from manufactures in individual companies or alliances• Active involvement in domestic SAF production and expansion to SAF procurement sites• Request for support related to the supply and manufacture of SAF to the government and energy industries (At the Public-Private Councils for the promotion of SAF deployment, JAL participated in discussions on stable production and sharing of SAF, as well as on making it less expensive, and a "draft regulatory and support package" was presented.)
		Impact of high SAF and hydrogen fuel prices on earnings	Medium to Long	Medium to Large	
	Aircraft	Delay in the development of aircraft using new technologies such as hydrogen and electric power and in the development of airport infrastructure1	Long	Medium	<ul style="list-style-type: none">• Cooperation with aircraft and engine manufacturers• Participated in the "Public and Private Sector Consultation on New Technologies for Decarbonization of Aircraft" with the government and other relevant parties to formulate the "New Technology Roadmap for Decarbonization of Aircraft (draft)"
	Demand	Declining in customer preference due to delayed response to climate change and slowdown in domestic demand for air transport due to a modal shift	Medium to Long	Small to Medium	<ul style="list-style-type: none">• Advocating the Value of Aircraft Mobility after Thorough Efforts to Reduce CO₂• Building momentum by disseminating the progress of sustainable flights and SAF procurement in a planned manner, participating in symposiums, and strengthening the dissemination of environment-friendly measures
Physical Risks ✓ Acute ✓ Chronic	Operation	Impacts of the decrease in the number of passengers and the increase in flight cancellations caused by climate disasters due to the intensification of extreme weather events and changes in precipitation and climate patterns	Short to Long	Medium	<ul style="list-style-type: none">• Strengthen crisis management capabilities and enhance BCP in response to disasters
	Demand	Impact of the outbreak of a pandemic of infectious diseases caused by ecosystem changes due to the increase in average temperature on air transport	Short to Long	Large	<ul style="list-style-type: none">• Providing a Safe and Secure Air Transport Environment through Infectious Disease Control• Development of flight plans based on passenger demand

Opportunities

Types of Opportunity	Opportunities		Period of Opportunities	Impact of Opportunities	Actions to Expand the Opportunities
Opportunities ✓ Resource efficiency ✓ Energy source ✓ Resilience ✓ Market ✓ Products and services	Aircraft Operated	Improvements in flight operations, technical improvements in equipment. Reduction of fuel consumption by improving fuel efficiency and CO ₂ Reduction through improvement of infrastructure, including upgrading of air traffic control. (Reduction of Credit Purchase Costs)	Short to Long	Medium	<ul style="list-style-type: none">• CO₂ reduction of operational ingenuity and aircraft modification.• Steady renewal of fuel-efficient equipment (Implementation of various types of financing, such as the implementation of specific use of funds transition-link loans, selection of new small aircraft, and acceleration of the introduction of fuel-efficient equipment)• Cooperation with manufacturers, countries, and related organizations to improve air traffic control and introduce aircraft using new technology• Request for support based on GX transition bonds
	SAF	Stable supply of aircraft fuel and reduction of cost through diversification of fuel supply sources	Medium to Long	Medium to Large	<ul style="list-style-type: none">• Procurement of SAF consisting of multiple manufacturing methods• All Japan SAF dissemination activities such as ACT FOR SKY• Cooperation among the public and private sectors, including public and private sector councils for the promotion of SAF deployment, to resolve technical and economic issues in domestic SAF manufacturing, and supply side through GX transition bonds, support for business operation costs including SAF feedstock procurement, and incentive support
	Ground Vehicle	CO ₂ reduction through the use of special airport vehicles combining various power sources, and labor-saving airport operations through the use of new technologies such as autonomous driving	Short to Medium	Small	<ul style="list-style-type: none">• Procurement of biodiesel fuel and use of special electric vehicles• Promoting airport decarbonization through public-private partnerships
	Demand	Enhancing preferences and expanding aviation demand through appropriate responses to diversifying customer needs	Short to Long	Medium	<ul style="list-style-type: none">• Providing low-carbon, environmentally-friendly products and services• Expansion of information disclosure on measures to address climate change, including reduction of CO₂ emissions• Building momentum by disseminating the progress of sustainable flights and SAF procurement in a planned manner, participating in symposiums, and strengthening the dissemination of environment-friendly measures
		Creation of new businesses based on the premise of low carbon Securing new revenue sources through (Nest Generation Air Mobility, Freightier Business with Ymato HD, LCC Business)	Short to Long	Large	<ul style="list-style-type: none">• Creating new businesses utilizing JAL Group assets• Promotion of investment that contributes to reduction of CO₂ using internal carbon pricing (ICP)

Risk Management

The JAL Group defines risk as any event or action that may impede the achievement of the organization's mission, objectives, or goals, and conducts semiannual risk surveys and assessments. Those assessed as of particular importance are positioned as priority risks, and the status of risk management is reviewed at the Group Risk Management Council chaired by the President, where countermeasures are discussed and decided. With regards to environmental issues such as climate change and biodiversity, which are priority issues in our management strategy, we implement risk management through the PDCA cycle based on the Environmental Management System (EMS), while considering relevant laws, regulations, and policy trends in the international community.



Risk Management System

Risks related to climate change, both transition risks and physical risks, are managed in the risk management system of the entire JAL Group.

For a risk management structure chart, please visit the JAL website.

WEB <https://www.jal.com/en/sustainability/governance/riskmanagement/#risk>

Metrics and Targets

In order to pass on our precious Earth to the next generation, the JAL Group sets targets for environmental data such as CO₂ emissions, waste and water consumption, and discloses the results.

For more information on Metrics and Targets, please visit ESG Data Book.

WEB <https://www.jal.com/en/sustainability/esg/pdf/esg.pdf>

Due to the nature of the air transport business, direct emissions from aircraft account for about 99 percent of CO₂ emissions. Based on this fact, we will first address the reduction of CO₂ emissions from aircraft as our top priority, but we are also earnestly working to reduce CO₂ emissions from indirect emissions from ground facilities with similarly high targets. Achieving our goals is by no means easy, but we will continue to lead the industry in cutting-edge initiatives in line with the Japanese government's Clean Energy Strategy, while strengthening cooperation and collaboration with various stakeholders in Japan and abroad, in line with the international framework for reducing CO₂ emissions.

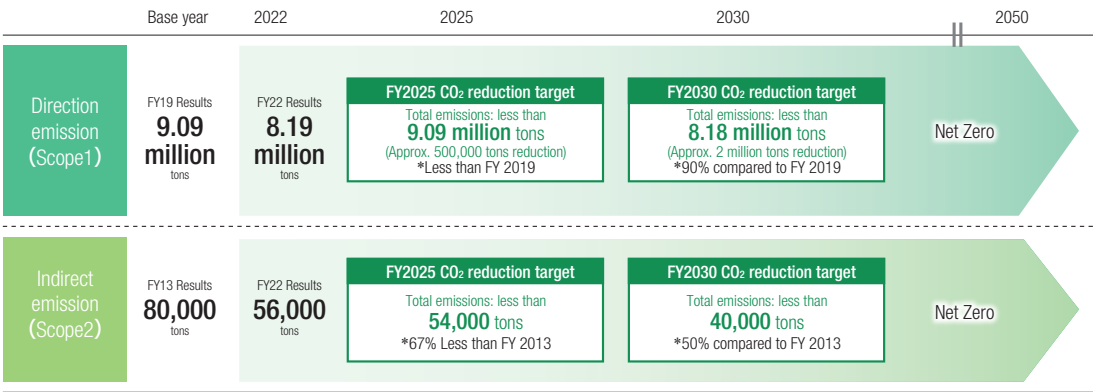
For more information on Performance and Targets for Reducing CO₂ Emissions, please visit the JAL website.

WEB <https://www.jal.com/en/sustainability/initiatives/>

Targets and Initiatives for CO₂ Reduction by 2030

The JAL Group has set specific targets for 2030 (a 10 percent reduction in total emissions from 2019 levels) in May 2021 as the first Japanese airline and has taken the lead in promoting decarbonization of the global aviation industry through joint procurement of SAF in alliances and the use of ESG finance when renewing aircraft. Going forward, JAL will continue to accelerate our existing initiatives, such as the steady renewal of fuel-efficient aircraft based on a stable financial base, steady implementation of JAL Green Operations, and strategic procurement based on specific SAF loading targets, and by implementing the utilization of emissions trading and consideration of the use of negative emission technologies as additional responses to the revised CORSIA baseline. We will boldly take on the challenge of achieving our targets. Regarding SAF, while overseas manufacturing and supply chain construction activities are accelerating, it was clearly stated that SAF manufacturing and distribution will be promoted in Japan in the Basic Policy for Economic and Fiscal Management and Reform 2023, Grand Design and the Implementation Plan for New Capitalism, Clean Energy Strategy, and Basic Policy for Realizing GX. In order to realize its ambitious goal of replacing 10 percent of all installed fuel with SAF by 2030, the JAL Group will actively work toward commercializing SAF through public-private partnerships and cooperation with domestic and international stakeholders.

CO₂ Reduction Targets and Achievements



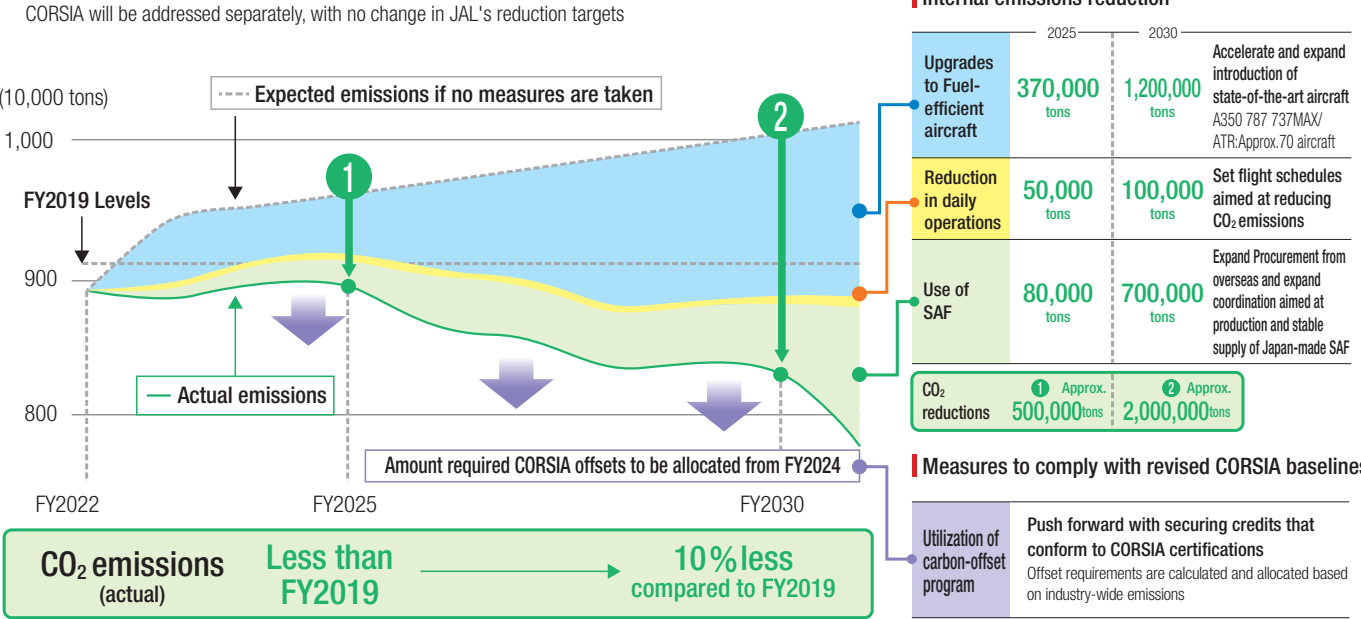
*Voluntarily digging deeper, taking into account the Paris Agreement, etc.

■ Actions to be Taken by FY2030 Responding to Changes in the Business Environment

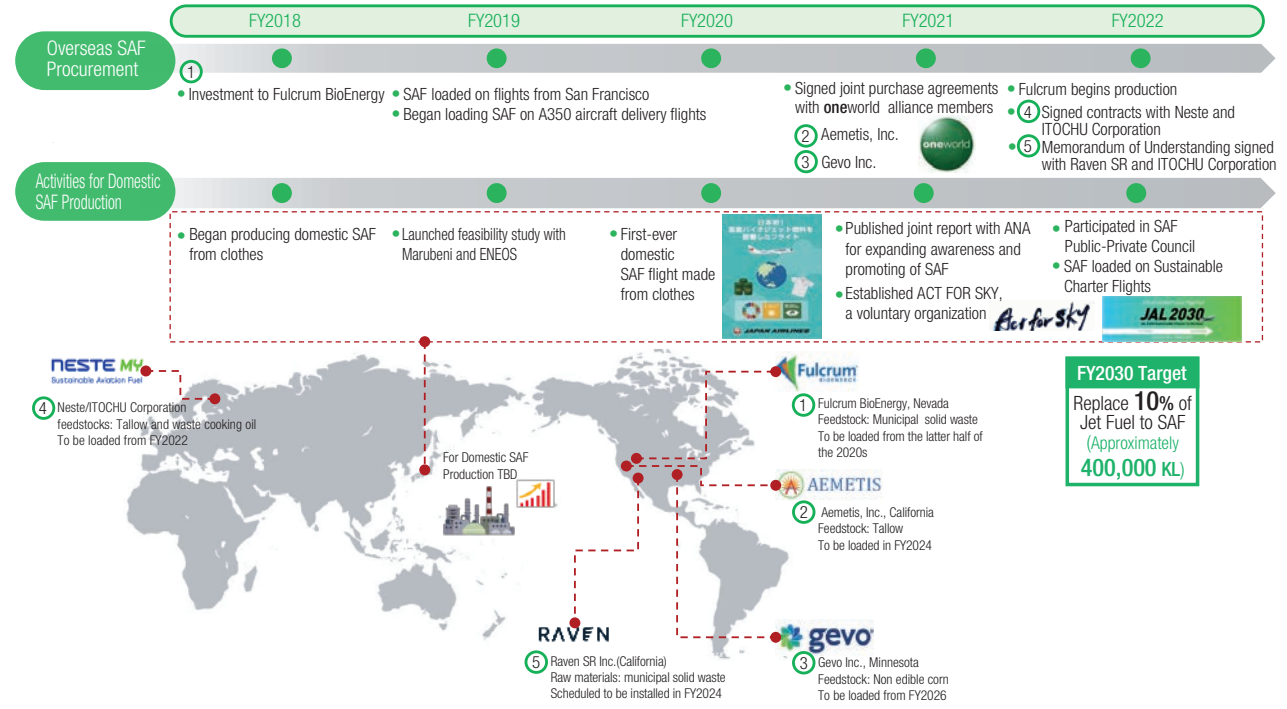
At the 41st ICAO General Assembly held at ICAO Headquarters (Montreal, Canada) from September 27 to October 7, 2022, the ICAO announced the long-term goals for decarbonization in the international aviation sector and adopted to achieve Net Zero CO₂ Emissions by 2050, as well as a framework (the calculation standards for reductions to be imposed on each airline) for reducing CO₂ emissions.

This is a major change in the framework, which revises the baseline for calculating the excess CO₂ emissions of the international aviation sector to 85 percent of the 2019 level for the period 2024 to 2035. The JAL Group will respond to the changes in the business environment surrounding the CORSIA baseline review by utilizing emissions trading and other measures.

■ Roadmap for Reducing CO₂ Emissions up till FY2030



■ SAF Initiatives at JAL



► Procurement of SAF Overseas

In FY2021, we signed a joint agreement with oneworld alliance member airlines to purchase SAF from the United States, where SAF is already produced. SAF will be purchased from Aemetis Inc., which produces SAF from tallow, and Gevo Inc., which produces SAF from non edible corn. This is the first initiative of the alliance, and by showing the need for SAF by multiple airlines, we will contribute to the diffusion and market expansion of SAF and promote carbon neutrality in the airline industry.

In FY2022, we worked with SAF producers and suppliers to establish a system to supply SAF in Singapore, Los Angeles, and Chubu Centrair International Airport.

We also signed a memorandum of understanding to procure SAF from Raven SR in the United States, which uses municipal solid waste as feedstock.

► Accelerating Efforts to Produce and Stably Secure SAF in Japan

① Collaboration in the aviation industry

To achieve carbon neutrality in 2050, the development and diffusion of SAF is essential. In October 2021, JAL and All Nippon Airways Co., Ltd. (ANA) published a joint report "Toward Virtually Zero CO₂ Emissions from Air Transport in 2050" to build a stable supply system for SAF. The report aims to raise awareness and promote understanding of SAF in Japan and provides a wide range of information on mass production and utilization including estimates of SAF requirements in Japan. To pass on air transportation to the next generation as an important social infrastructure that connects Japan with the world, JAL and ANA will continue to work together to promote SAF diffusion and other environmental measures, in collaboration with the government and related parties.



Joint report was published with ANA

② Cross-industry collaboration

In March 2022, JAL, together with JGC HOLDINGS CORPORATION, ANA and REVO International Inc., launched ACT FOR SKY, a voluntary organization with the aim of promoting SAF, carbon neutrality, and the importance of resource recycling, while changing the attitudes of citizens and companies, which will hopefully lead to behavioral changes.

We started with 16 companies, and as of April 2023, we have expanded to 27 companies. ACT FOR SKY promotes and expands domestic SAF through information exchange and discussion among its members, as well as activities to raise awareness of society by disseminating information and holding events aimed at realizing a decarbonized and recycling-based society.

JAL, as one of the managing companies, will continue to carry out concrete initiatives aimed at the development of aviation and the entire industry in Japan and the realization of a sustainable society.



ACT FOR SKY logo and 27 participating companies


③ Collaboration with the government

At the FY2021 Study Group on CO₂ Reduction 5.6 in the Aviation Sector, the target of replacing 10 percent of the fuel consumed by Japanese airlines with SAF was set up as a common target of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Japanese airlines. To introduce SAF, it was recommended that the development and production of internationally competitive domestic 40,000 SAF should be promoted and that coordination among wholesalers on the supply side and airlines on the user side should be strengthened in order to build future supply chains.

For this reason, in FY2022, the Public-Private Council for the Promotion of SAF, co-sponsored by MLIT and the Ministry of Economy, Trade and Industry, was established as a forum for public-private discussions and joint initiatives on technical and economic issues and solutions. JAL is actively participating in this forum.

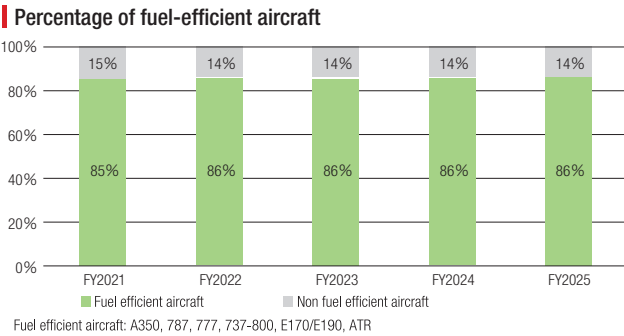
Upgrading to Fuel-Efficient Aircraft

In September 2019, we began introducing Airbus A350-900 on domestic routes and currently we have 16 aircraft. From 2023, we will begin to introduce Airbus A350-1000 on international routes, and we will introduce the new Boeing 737-8 in 2026 as a replacement for the currently operating Boeing 737-800. These aircraft are fuel efficient, have low noise, and can reduce CO₂ emissions by 15 percent to 25 percent compared to previous models. The newly introduced aircraft will use funds raised through a public offering in FY2020. It will also be funded by the SDGs Bonds, the world's first transition bond issued by the airline industry in March 2022, and will be utilized to steadily upgrade to fuel-efficient aircraft. As the development of next-generation aircraft equipped with new technologies powered by electricity and hydrogen increases, we will



SDG Bonds

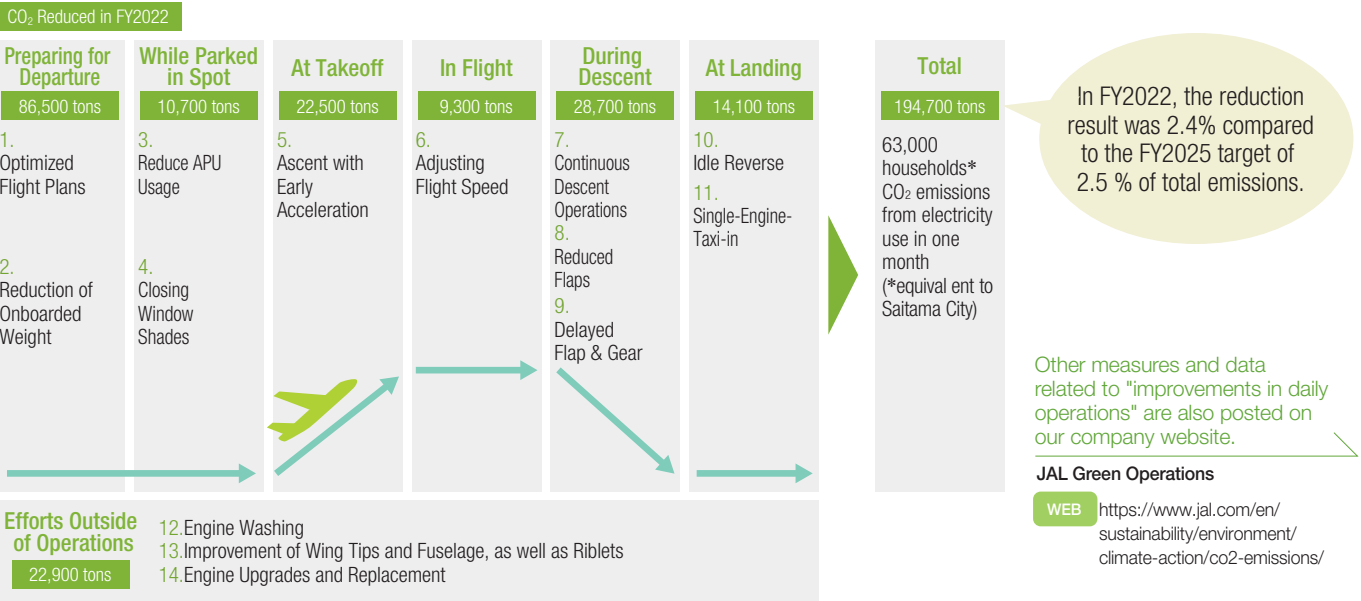
cooperate with aircraft and engine manufacturers to promote technological reforms. Since the development of infrastructure, including airports, is also essential for the next generation of aircraft, we will work with stakeholders such as the national government and airport companies to improve the environment.



Reducing CO₂ Emissions in Daily Operations

In order to reduce CO₂ emissions, various efforts are taken in our daily operations, such as eco-friendly flights by arranging the timing of operations and steering, reducing the weight of the aircraft and shortening the flight route. These efforts are collectively called "JAL Green Operations". We monitor the actual flight routes on a daily basis, and even at the flight planning stage, we create a flight route plan that matches the actual situation, and so on, in order to optimize the loaded fuel on board (FOB). In addition, the implementation rate of the early acceleration ascent method, which has been actively promoted for some time, has increased significantly because the speed limit stipulated in the Civil Aviation Act was changed after discussions with the Civil Aviation Bureau, making it easier to implement.

JAL Green Operations



Voice



ISHIBE Satoshi
System Engineering Group, Aircraft Maintenance Center, Osaka

A Fuel Efficiency Flight Test was Conducted for the First Time in the World by Applying Riblets on Aircraft Coating Surfaces.

In FY2022, JALEC applied a shark skin inspired riblet surface with a groove depth of only 50 microns (about the thickness of a human hair) to the aircraft coating surface to reduce friction. By applying this riblet over the aircraft coating surface, it can reduce the skin friction. It is expected to improve fuel efficiency by up to 2 percent. During the preparations, it was difficult to find the optimal method such as paint, additives, coating thickness and drying time because the riblet coating of the paint is very sensitive. Through trial and error, by utilizing the extensive knowledge and experience of our painting technology experts, we were able to successfully execute this technology for the first time in the world. In the future, we plan to expand the riblet areas on the aircraft coating surface to establish more optimal methods to further reducing CO₂ emissions. By improving fuel efficiency we plan to gradually expand the aircraft with riblet coating to international flights, where the reduction of fuel consumption is more effective.

Measures to Reduce CO₂ Emissions from Ground Equipment

With regard to ground equipments, initiatives to reduce unit energy consumption by one percent or more on average are in progress. Under the "operator classification evaluation system" of the Act on the Rational Use of Energy (Energy Conservation Act) implemented by the Ministry of Economy, Trade and Industry, the JAL Group has been certified as "S Class," an excellent business operator, for eight consecutive years since 2015. To reduce CO₂ emissions from airport vehicles, Tokyo International Airport (Haneda) is introducing electric-powered vehicles. At Narita International Airport, used cooking oil, in the Dining Port Goryo Kaku restaurant operated by the JAL Group, was collected and processed into biodiesel fuel. This fuel, a local production and consumption project, is then used in ground support equipments at Narita International Airport.



Electric-powered towing tractors

Providing Carbon Offset Programs

In addition to responding to ICAO CORSIA which is an international emissions reduction and offset scheme, we offer "JAL Carbon Offset" to our customers.

JAL Carbon Offset

In cooperation with CHOOOSE, a Norwegian company, we offer JAL Carbon Offset. This program for individual and corporation customers enables to offset the CO₂ emissions from their flights. At the Sustainable Charter Flight held in November 2022, we worked to achieve Net Zero CO₂ Emissions using the individual program by supporting projects that absorb CO₂. In addition, the corporate program allows companies to provide reports on CO₂ emissions visualization, select credit programs, implement carbon offsets, and issue certificates. We will continue to work with our customers to reduce CO₂ emissions.

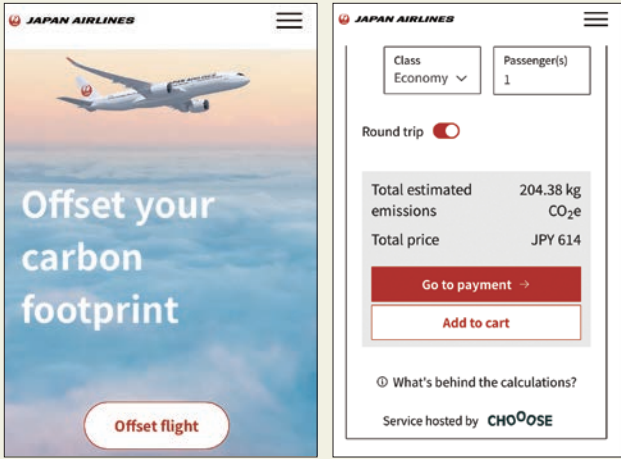


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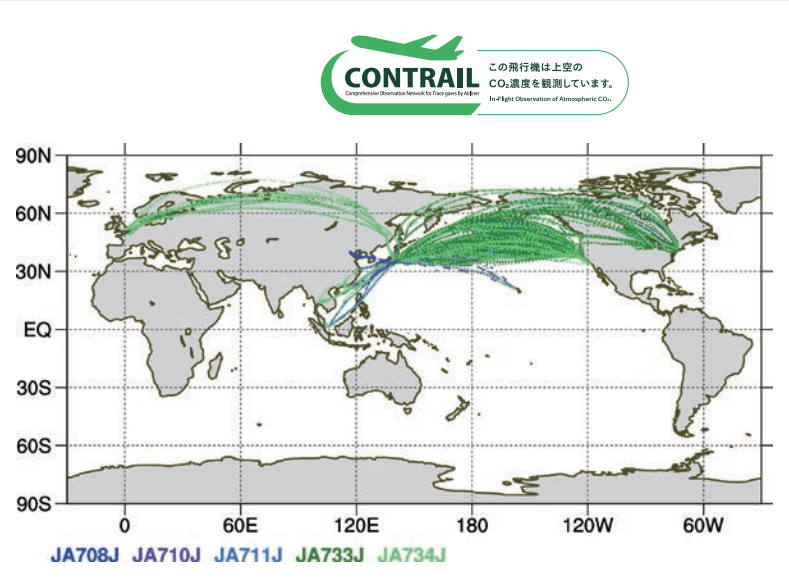
JAL Carbon Offset (for Individual Customers)

WEB https://www.jal.com/en/sustainability/environment/climate-action/emission_trading/#carbon

Topic

CONTRAIL Project

In order to accurately predict climate change, it is essential to observe the CO₂ concentration and understand its circulation at multiple locations, including the sky. The JAL Group has been using aircraft to conduct atmospheric observations since 1993, and in 2005, a public-private CONTRAIL project was launched by five organizations (National Institute of Environmental Studies, Meteorological Research Institute, Jamco Corporation, JAL Foundation, Japan Airlines) to expand the observations. This project, the first of its kind in the world to continue global observations of greenhouse gases (such as CO₂) in scheduled flight, involves the installation of an observation equipment on a commercial aircraft to conduct frequent, long-term observations in the sky. The data is being used by researchers around the world.



CO₂ concentration stations in 2021
https://cger.nies.go.jp/contrail/cme/fstatist_2021.html

Special Feature	Sustainability Initiatives	Envionment	Respect for Human Rights
Addressing Climate Change	Biodiversity Conservation	Precaution of Environmental Pollution	Noise Reduction
		Effective Use of Limited Resources	Special Feature

Biodiversity Conservation

Particularly relevant areas: Passengers Cargo and Mail Mileage, Lifestyle and Infrastructure

Basic Concept

The JAL Group recognizes that the preservation and restoration of nature is a particularly important issue for a sustainable society, as it strengthens the social infrastructure, and commits to comprehensive solutions to biodiversity and climate change. To date, the JAL Group has actively promoted the conservation of biodiversity, including the conservation of species through the prevention of illegal wildlife trade, the preservation of ecosystems through plant quarantine, and the conservation of natural resources at World Natural Heritage sites. In addition, to address climate change, we have been working on upgrading to fuel-efficient aircraft, implementing JAL Green Operations regularly, and utilizing SAF in order to achieve Net Zero CO₂ Emissions by 2050, while taking into consideration the impact of CO₂ reduction efforts on the ecosystem. (Disclosure of information on climate change based on the TCFD) The JAL Group aims to build a society in which nature and people coexist in harmony through its business activities. Based on the premise of reducing our impact on nature, we will create the flow of people through the preservation and experience of nature, and the flow of goods and logistics through foods and merchandise that are products of rich ecosystems. In this way, we will create relationships and connections through mobility, and through the realization of "Nature Positive," and will create a future in which everyone can feel affluence and hopeful, thereby enhancing our corporate value. To realize these goals, we will work under our "Commitment to Nature"



Based on the Task Force on Nature-related Financial Disclosures (TNFD) information disclosure framework, the following discloses information from the four perspectives recommended by the TNFD: governance, strategy, risk and impact management, and Metrics and Targets.

Governance

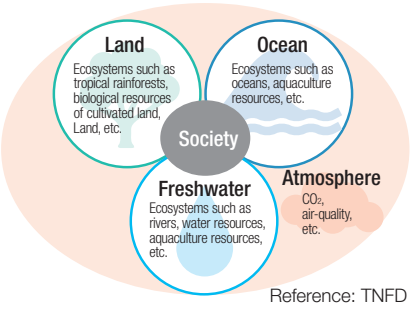
The JAL Group's Board of Directors demonstrates a strong supervisory function through the periodic reporting (four times in FY2022) on the execution of initiatives concerning climate change and biodiversity. In the execution, the Sustainability Promotion Council, chaired by the President, formulates basic policies, sets important targets, manages progress, and deliberates and decides on policies to deal with issues. The Sustainability Promotion Committee, chaired by the Senior Vice President of the General Affairs Division, deliberates on individual issues identified through the environmental management system (EMS) and reports to the Sustainability Promotion Council. The content of this disclosure based on TNFD's recommendations was reported to and approved by the Board of Directors in August 2023. *See "TNFD Beta Framework (v0.4)"

Strategy

The JAL Group follows the LEAP approach proposed by the TNFD, identifying natural dependencies and impacts as well as priority areas, to systematically assess nature-related risks and opportunities on a scientific basis. *LEAP approach: "LEAP" is an acronym for the four phases of Locate, Evaluate, Assess, and Prepare. It is an information disclosure guidance that consists of "Locate," which identifies the nature interface throughout the supply chain and identifies priority locations; "Evaluate," which diagnoses the dependencies and impacts between the business activities and nature; "Assess," which evaluates the key risks and opportunities based on the results of the diagnosis; and "Prepare," which prepares a response to nature-related risks and opportunities and reports back to investors.

Nature-related Dependencies & Impacts

Nature, consisting of freshwater, ocean, land and atmosphere, provides various benefits (ecosystem services) to the JAL Group's business. For example, a stable climate maintains a suitable operating environment for aircraft (regulating services) and provides places and opportunities for tourism (cultural services), leading to the creation of human flows. In addition, blessings such as food (supply services) lead to the creation of commercial and logistics flows. In March 2023, the JAL Group held an internal workshop to explore contacts with nature, inviting a lecturer from the World Wide Fund for Nature Japan (WWF Japan) to identify the dependencies and impacts of the JAL Group's air transportation business on nature. The dependence was identified as "flights to natural heritage sites, beach resorts, and other nature-rich tourist destinations" and "sales of local food products," while the impact was identified as "possible environmental pollution around airports" and "concerns about the impact on the ecosystem during the production of SAF".



Priority Location Identification

Water Related Risks

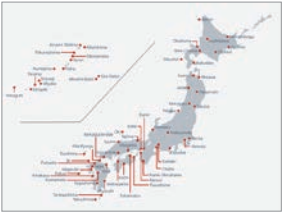
The JAL Group recognizes water as an important resource that affects climate change and biodiversity and commits to its sustainable use. The JAL Group's water intake areas are mainly in Japan, where water stress levels are considered low (analysed using Aqueduct*), and we recognize that its risks are low. We will continue our efforts to conserve water resources such as the recycling of water for washing aircraft parts, to name a few. Additionally, the analysis will be reviewed annually. *Aqueduct: Water risk analysis tool provided by the World Resources Institute

Our efforts and data on water resources issues are also posted on our company website.

WEB ESG DATA https://www.jal.com/en/sustainability/esg/pdf/esg.pdf WEB Conservation of water resources https://www.jal.com/en/sustainability/environment/limited-resources/#anc08

Biodiversity Risks

The JAL Group identified priority areas by focusing not only on water, but also on biodiversity itself, including ecosystems such as forests and oceans, and the various species that inhabit them. JAL Group's destinations were matched with areas of significant biodiversity in WWF's Biodiversity Risk Filter, and it was found that many areas in Japan are at high biodiversity risk. Hokkaido, Kagoshima (Amami), and Okinawa, which have high demand for nature tourism, were identified as areas where our businesses are dependent on nature. Also, Tokyo was identified as an area with high priority for biodiversity conservation, where operations have an impact on nature because it is a major airport.



Risks and Opportunities on the Organization's Businesses

The loss of biodiversity can be a significant risk to the continuance of our air transportation business, and managing it can also lead to opportunities. The workshop also assessed nature-related risks and opportunities based on the identified dependencies and impacts, which are summarized in the table below. In the future, we will deepen the assessment of risks and opportunities by analyzing financial impacts as well.

	Classification	Outline of Risks	Risk Mitigation Actions
Risks	Physical Risks ✓Acute risk ✓Chronic risk	Impact on air transportation operations by pandemic outbreaks of infectious diseases caused by the change of ecosystems.	• Provide a "safe and secure" air transportation environment through measures to prevent infectious diseases. • Develop flight plans based on passenger demand.
		Loss of natural tourism resources and reduced passenger volume due to changes in the ecosystem.	Promote efforts to restore natural tourism resources in cooperation with local communities.
	Transition Risks ✓Policy and Law ✓Market ✓Reputation	Ecological impacts in securing raw materials and manufacturing processes associated with the use of SAF.	Use of SAFs (such as ICAO CORSIA-eligible fuels) that take into account raw materials, land use and ecosystem conservation in the production areas, etc.
		Restrictions on foods and merchandise used due to more strict regulations on the use of wildlife to protect rare species.	• Compliance with internal guidelines with reference to the IUCN Red List, etc. • Use of food and merchandise produced with sustainability taken into account.
		Over tourism in nature-rich tourism destinations.	Realization of tourism based on sufficient management of human flows.
		Complicity in illegal wildlife trafficking.	Educate employees and collaborate with airport authorities to prevent illegal wildlife trafficking.
Opportunities		Environmental contamination to the surroundings of the airport (e.g., if improper water treatment occurs).	Thorough prevention procedures and post occurrence response procedures.
	Classification	Outline of Opportunities	Actions to Expand the Opportunities
	Opportunities based on business performance ✓Products and services ✓Market ✓Reputation	Creating demand for nature tourism.	Balancing tourism and nature conservation by encouraging appropriate tourism through the training of tourism guides, etc.
		Creation of commercial distribution and logistics through the transportation of foods and merchandise that are products of a rich ecosystem.	Contribution to regional economic revitalization through high-speed fresh transportation of foods and merchandise.
Sustainability Performance Opportunities ✓Protection, restoration and rehabilitation of ecosystems ✓Sustainable use of natural resources		Securing tourism resources through protection, restoration, and rehabilitation of ecosystem.	Implementation of measures such as the coral sexual reproduction project.
		Securing a stable supply of commercial materials.	Use of sustainable commercial products (e.g. certified commercial products) in collaboration with suppliers.

Risk and Impact Management

The JAL Group defines risks as any event or action that may impede the achievement of the organization's mission, objectives, or goals, and conducts semiannual risk surveys and assessments. Those assessed as of particular importance are positioned as priority risks, and the status of risk management is reviewed at the Group Risk Management Council chaired by the President, where countermeasures are discussed and decided. With regards to environmental issues such as climate change and biodiversity, which are priority issues in our management strategy, we implement risk management through the PDCA cycle based on the EMS, while considering relevant laws, regulations, and policy trends in the international community.

Risk Management System

WEB https://www.jal.com/en/sustainability/governance/riskmanagement/#risk

Metrics and Targets

The JAL Group recognizes that biodiversity is affected by various environmental issues, including climate change, resources, and environmental pollution, and commits to comprehensive solutions. In addition to targets related to biodiversity conservation, we disclose environmental data such as CO₂ emissions, waste and water consumption.

For targets and KPIs, visit our company Web site.

WEB ESG DATA https://www.jal.com/en/sustainability/esg/pdf/esg.pdf

Main topics	Subtopic	Metrics	FY25 Targets
Biodiversity Conservation	Collaboration with external stakeholders to help expand the area of protected areas and the area of protected areas such as national parks and OECMs by 2030	[Okinawa] Number of sexually reproduced corals grown	1,000 seedlings by 2026
	Use of certified commercial products	Percentage of in-flight items using certified paper	100%
	Prevention of illegal wildlife trade	Number of illegal wildlife transports	0
	Consideration for biodiversity in the foods and merchandise we handle	Number of violations of internal guidelines for ESG risk food ingredients and commercial products	0
	Reducing the impact on the ecosystems surrounding the airport	[Tokyo] Number of incidents of improper management of water containing hazardous substances	0

Focused and Strategic Measures

Sexual Reproduction and Coral Regeneration Project

One of the attractions of Okinawa are coral reefs. Coral reefs are not only beautiful but also have many roles, such as being a place where living organisms coexist and live. However, in recent years, the number of coral reefs has been decreasing due to the rising sea temperatures and the occurrence of large numbers of hazardous crown-of-thorns starfish. Japan Transocean Air (JTA) has formed a council with local companies that support its efforts to regenerate coral reefs in Ishigaki and Kume Islands using a new method called the Sexual Reproduction Method.



■Prevention of Illegal Wildlife Trade

In June 2018, the JAL Group signed the Buckingham Palace Declaration, promoted by the International Air Transport Association (IATA), to promote the prevention of illegal wildlife trade.

In the Amami-Okinawa region, where many rare wildlife live, we are working with the Ministry of the Environment and local governments to participate in training sessions to prevent poaching and smuggling, to test the use of applications to identify rare wildlife, and to establish a cooperative system in cases where it is difficult to identify species.



■Considering Biodiversity in Foodstuffs and Commercial Products

In July 2022, the JAL Group established in-house guidelines for foodstuffs and commercial materials to be handled to consider biodiversity from the viewpoint of protecting endangered animals.

We are promoting the guidelines within the company to properly understand the importance of biodiversity conservation and to recognize the relationship between foodstuffs and commercial products.

Voice

Mangrove Planting Activities



On November 28, 2022, JALJKT marked Indonesia's tree planting day by planting mangroves in the PIK Mangroves Ecotourism Area as part of their SDGs initiative. The purpose of planting mangroves is to restore and maintain the quality, functions, and benefits of the mangrove forests. This initiative is a concrete action taken by JAL to conserve local environmental biodiversity. In total, 250 mangroves were planted. Preparation for the activity included items such as plastic gloves, rubber boots, hats, and personal hygiene tools. The event was attended by almost all staff in the branch as well as the Asia and Oceania region. The founder of mangrove Jakarta, Mr. Paundra Hanoetama, expressed gratitude for Japan Airlines' concern for the environment and hopes that this initiative can be continued in other places. The participants enjoyed this activity and it became a memorable moment for them.

Rudy Tirtanadi Banuarli, General Affairs Section, Jakarta Branch, Senior Vice President Office, Asia & Oceania

Precaution of Environmental Pollution

Particularly relevant areas: Passengers Cargo and Mail

Basic Concept

- The JAL Group will strive to prevent environmental pollution to fulfill its responsibility to pass on the precious Earth to the next generation.
 - We will strive to reduce carbon emissions from aircraft and factories, which cause environmental pollution.
 - To achieve this, we will reduce emissions of nitrogen oxides (NOx), carbon monoxide (CO) and hydrocarbons (HC) by using aircraft engines that comply with appropriate standards. We will also manage and reduce the release of hazardous chemical substances in accordance with the regulations.
- Aligned with Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law), we will maintain a final disposal rate for industrial waste of 1 percent or lower.

Noise Reduction

Particularly relevant areas: Passengers Cargo and Mail

Basic Concept

- The JAL Group is aware that air transport is responsible for a number of negative effects on the environment and aims to live in harmony with residents around the airport.
- To reduce noise, we are upgrading our fleet to the latest low-noise aircraft that comply with noise standards. We are also actively introducing noise abatement operational procedures.

Effective Use of Limited Resources

Particularly relevant areas: Passengers Cargo and Mail

Basic Concept

- To fulfill our responsibility to pass on the precious Earth to the next generation, the JAL Group aims to become a recycling-based society that uses limited resources effectively.
- To promote the effective use of limited resources, we will practice the 4Rs (Refuse, Reduce, Reuse, Recycle) to reduce food waste and eliminate petroleum-derived single-use plastics products in all aspects of our business, which will contribute to reducing greenhouse gas emissions.
- To this end, we will work with our customers to reduce food waste and the use of plastic products at every touchpoint, including our cabins. In addition, we will work with our suppliers to promote initiatives such as supply chain reduction.

For more on "Reducing Food Waste," see "Sustainability of Restaurants in the Sky" on pp.103-104.

Single-use Plastics Reduction

Progress towards achieving FY2025 targets

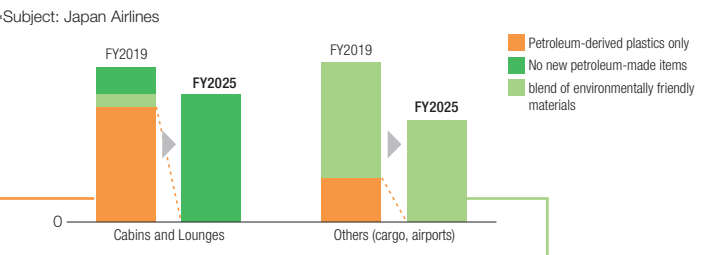
Important issue	FY2025 management targets	FY2022 Results
Reduction of plastic waste	Cabins and Lounges: Elimination of all new petroleum-based plastics Cargo and Airports: 100% switch to environmentally friendly materials	Discarded 45% Replaced 91%

Focused and Strategic Measures

In May 2021, the JAL Group formulated a target for FY2025 to solve the problem of reducing single-use plastics, a contributing factor to global warming and ocean pollution.

Through the promotion of 3R (Reduce/Reuse/Recycle) + 1R (Redesign) and with the cooperation of our customers, we are attempting to eliminate all new petroleum-based products in all single-use plastic products provided to our customers at cabins and lounges, and to replace the items thoroughly to environmentally friendly materials in airports and cargo.

Image of Reduction of Single-use Plastics Consumption Toward FY2025 Targets



►Examples of Single-use Plastics Reduction

Passenger cabins and lounges
Elimination of petroleum-derived plastics FY22 result : 45%

Reuse	Recycle
• Wash and use repeatedly	• Lid made from 100% recycled plastic
Reduce	Redesign
Containers made from recycled plastic bottles	

Recycle	Redesign
• Replaced the lids of paper cups with paper products that have acquired international certification	• Recycling of paper cups started on some domestic flights

Reduce	Redesign
100% recycled plastic bottles	
	Containers and tray mats that have acquired international certification

Cargo, airports
Change 100% to environmentally-friendly materials FY22 result : 91%

Redesign	Recycle
50% biomass of plastic bags for baggage covers for delivery service	Plastic sheets for packing cargo made from recycled materials, recycled from 40 years ago

Topic Recycling of Inflight Paper Cups

The JAL Group has been recycling paper cups (lids, cups, muddlers) on some domestic routes since December 2022 in cooperation with Nippon Paper Industries Co., Ltd.

In the past, used beverage paper products were incinerated as general waste from a technical and sanitary standpoint. However, the JAL Group has made it possible to recycle used paper cups by creating a unique recycle chain whereby paper cups used for inflight services are properly sorted and collected by the JAL Group, and then transported, accumulated, baled, and recycled by the Nippon Paper Group using advanced technology.

Customer cooperation is essential for sorting the items. We will continue to work with stakeholders to accelerate the promotion of resource recycling.



Sorted collection of paper cups



Video of paper cup recycling

Voice

Recycling of Domestic Boeing 777 Aircraft Achieved a Recycling Rate of 96 Percent



We have been selling Boeing 777 aircraft, which operated domestic flights until the end of FY2021, to overseas markets. We have also taken the first initiatives in Japan to recycle some of the materials used in the aircraft.

In addition to recycling metals such as aluminum and iron, we also recycled plastics and carbon fiber composite materials (CFRP) as materials resulting in a 96 percent recycling rate.

We are also working on manufacturing and selling upcycled products to familiarize air travel by utilizing discarded parts.

We will continue to take on new initiatives to realize a more sustainable society.

KAMEDA Hirofumi, Head of New Business Development Team, Japan Airlines Co., Ltd. Engineering and Maintenance Division Business Promotion Division



Special Feature

Sustainability of Restaurants in the Sky

We must keep our focus on the various challenges of food that support life. Greenhouse gas emission accompanied by food is 21 percent to 37 percent of all emissions, but one third of the food is discarded. There are a variety of issues surrounding food, including overfishing and the impact of pesticides on biodiversity, worker's rights, and nutritional bias. Our efforts will continue to provide customers with safe, sustainable, and delicious meals that are friendly to ecosystems and labor, and to recycle them into resources without waste.



Implement a Food Waste Reduction Program that Includes the Supply Chain

Post-Harvest Loss	Processing Loss	Purchasing/Storage Loss	Cooking Loss	Food Waste
<ul style="list-style-type: none">Utilization of disposable cropsReuse of non-standard crops	<ul style="list-style-type: none">Composting all food loss including supply chainRecycling-oriented vegetable	<ul style="list-style-type: none">Reservation analysisStock/buying control	<ul style="list-style-type: none">Composting all food lossPrevention of excessive removal of edible parts and reuse of edge materialsLoss analysis by category	<ul style="list-style-type: none">Campaigns to prevent leftover foodJAL Meal Skip OptionDonations to welfare councils
<p>Lounge "Farmer's soup"</p> <p>The soup which we made only with the stem of the broccoli discarded at a stage of the production. We are planning our next soup that utilizes the peel of onion.</p>	<p>A plate from the "The Future 50 Foods" list</p> <p>The spinach which grew with compost which are composted by Residues of the JAL inflight meal processing process.</p>	<p>JAL Royal Catering inflight meal catering facility</p> <p>Factories that have acquired environmental certification (ISO14001) and set an environmental goal of reducing food Loss.</p>	<p>Compost device for cooking loss</p> <p>JAL Royal Catering makes compost daily from its cooking residues and recycles unused food materials.</p>	<p>JAL Meal Skip Option Service</p> <p>This service is designed to meet the needs of customers who wish to rest in the cabin without inflight meal.</p>



Providing "Safe," "Secure," and "Sustainable" and Tasty Food

Procurement of certified ingredients

We use foodstuffs that have obtained global third-party certifications that takes into consideration food safety, environmental impact, biodiversity, worker's rights, and local communities.



The JAL Group has acquired MSC/ASC distribution certification, ASIAGAP certification, and ISO14001 certification.



Uses MSC certified ingredients



Uses ASIAGAP and ASC certified ingredients



Rainforest Alliance Certified Coffee

Continuous use of foodstuffs

We offer meals based on the "The Future 50 Foods" advocated by Unilever & UK-WWF, which is characterized by high nutritional value, low susceptibility to global warming, and soil recovery.



Supervised by KONO Fumiko "A dish from the list of "The Future 50 Foods"

Pursuit of food safety

The hygiene auditors of JAL are well versed in FSSC22000, an international standard for food safety, and conduct annual in-house and lounge hygiene audits of inflight meals, in accordance with the internal regulations for food safety.



How hygiene auditing is done. JAL auditors check for food safety quality

Voice



KONO Fumiko
Cooking Producer, On-the-go Chef, Supervisor of JAL inflight meals

Delicious and Sustainable Meals

When planning tasty and sustainable inflight meals, our first consideration is the needs of our customers. While we value communication with our cooks, including exchanging opinions with our crew, we aim to prepare inflight meals that customers would want to talk about.



Respect for Human Rights

Basic Concept

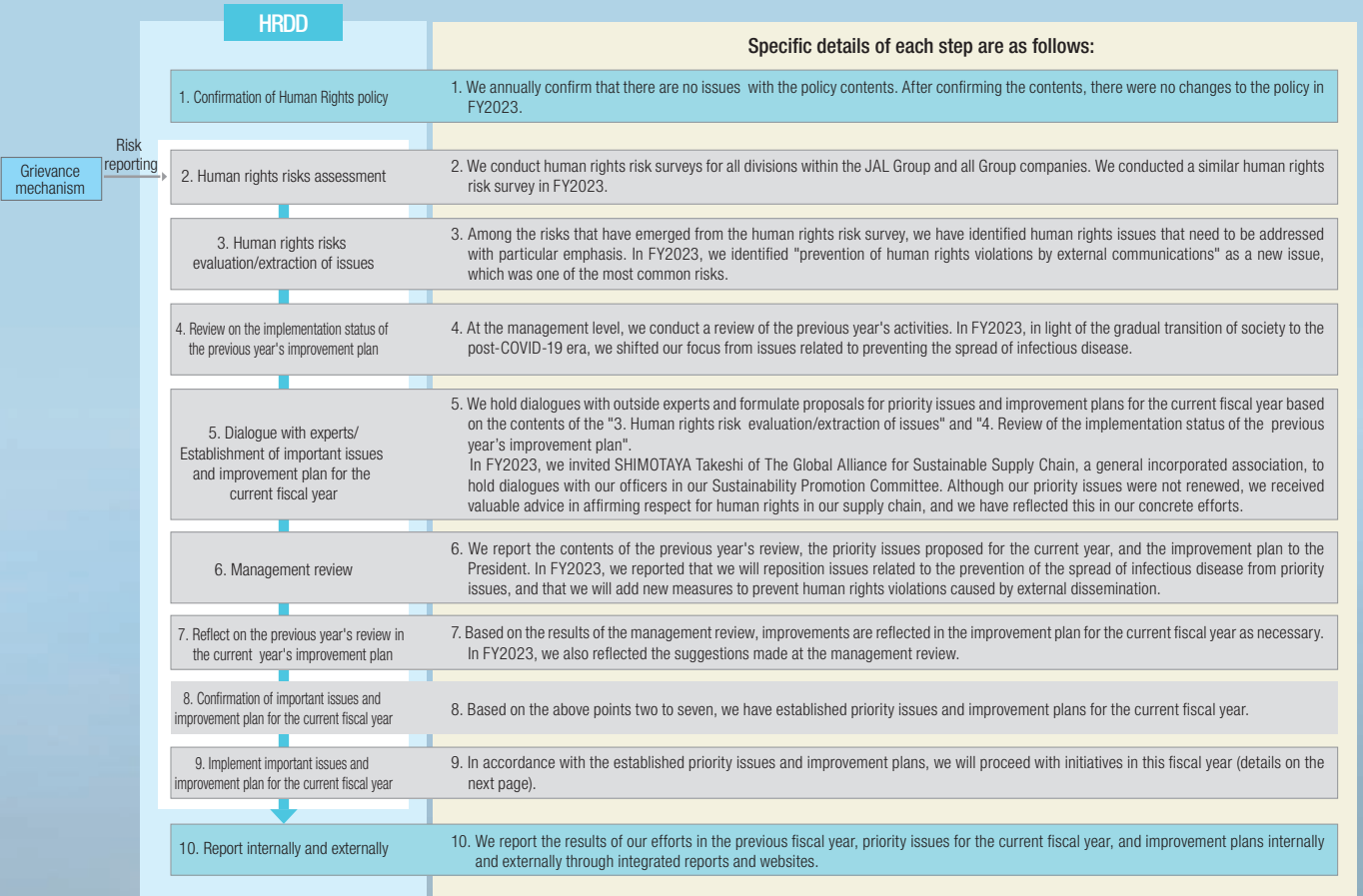
- All officers and employees of the JAL Group fulfill their responsibility to respect the human rights of all people.
- In accordance with the JAL Group Human Rights Policy, we respect all stakeholders including our customers and every employee of the JAL Group. We strictly prohibit discrimination on the basis of gender, age, nationality, race, ethnicity, religion, social status, disability, sexual and gender identity. We strive to prevent physical and emotional stress to our customers when providing goods and services, prevent human trafficking by air transportation and prevent human rights violations in our supply chains.
- To achieve this, we have included human rights due diligence in our business processes, and address issues, disclose information and continuously improve our operations. In addition, JAL Group employees are educated on gender equality, LGBTQ issues and the prevention of human trafficking. We also take steps with regard to our supply chains (refer to Responsible Procurement).

For more information on the JAL Group Human Rights Policy, please visit the JAL website

WEB https://www.jal.com/en/sustainability/codeofconduct/pdf/human-rights_en1908.pdf

Framework for Respecting Human Rights

The JAL Group promotes efforts to respect human rights based on its human rights policy and internal rules governing the mechanism and operation of human rights due diligence (hereinafter “Human Rights DD”). Aiming to respect the human rights of all stakeholders, including suppliers, customers, and employees, we set ten priority issues in FY2022 from the following three perspectives: supply chain management, provision of products and services, and improvement of the internal environment.



Flow for Human Rights DD initiatives (Promote efforts to respect human rights in line with this flow every fiscal year)

JAL Group Accessibility Service Policy

Based on the JAL Philosophy, which defines the basic attitude of employees, we will:

1. Provide stress-free travel for all customers:
2. Offer a variety of travel options to all our customers; and
3. Co-create enjoyment and delight through travel with customers and society.

JAL Group's Efforts to Respect Human Rights

Through its business activities, the JAL Group aims to realize a society in which all human rights are respected, and people can play an active role with peace of mind. To this end, we strive to respect the human rights of all stakeholders, including suppliers, customers, and employees, in accordance with the JAL Group Human Rights Policy. Our basic approach to each stakeholder is as follows.

Suppliers

We will work together with our business partners to build a sustainable supply chain that includes respect for human rights and appropriate labor practices. We also conduct risk assessments and monitoring to confirm the soundness of our supply chain. In addition, we will continue to procure products and meals that take human rights into consideration, such as service supplies and meals provided on flights and in lounges.

Customers

We will work to make all customers feel comfortable and secure. We will focus on three areas: improving accessibility, which aims at stress-free travel and provides a variety of travel options; the prevention of human trafficking, which aims to prevent complicity in human trafficking through air transportation; and the prevention of human rights violations through external communications so as not to cause unintentional human rights violations through external dissemination.

Employees

In addition to improving the working environment by preventing harassment, reducing long working hours, and preventing personal information leakage, we will promote initiatives to respect diversity by promoting DEI, such as women's advancement in the workplace and supporting the active participation of people with disabilities.

List of Initiatives to Respect Human Rights

Stakeholders	Challenges	Scheduled to be implemented in FY2023
Suppliers	Confirmation of respect for human rights in the supply chain	Continued
	Procurement of products with consideration for human rights	Continued
Customers	Improvement of accessibility	Continued
	Initiatives towards safety and comfort (Prevent the spread of infectious diseases)	Repositioning
	Prevention of human trafficking	Continued
	Prevention of human rights violations by external dissemination	New implementation
Employees	Prevention of harassment	Continued
	Prevention of long working hours	Continued
	Fair and impartial hiring and promotion	Continued
	Prevention of discrimination against race and culture	Continued
	Prevention of personal information leakage	Continued

Please refer to the special issue "Eleven priority issues, indicators and targets related to respect for human rights" on pp.107-108 for specific initiatives.

Special Feature

Eleven Priority Issues, Indicators and Targets Related to Respect for Human Rights

1 Confirmation of Respect for Human Rights in the Supply Chain

Relevant indicators

Confirmation rate of primary supplier soundness 100 percent, Completion of human rights investigations of new key suppliers 100 percent

We strive to establish a sustainable supply chain that includes respect for human rights, compliance with laws and regulations, global environmental protection, and proper labor practices. In FY2022, we distributed and collected self-assessment questionnaires to all 461 main suppliers, to identify risks, explain the results to suppliers who were able to identify risks, requested corrective measures, and completed soundness checks. We have also started the operation of a hotline for domestic and overseas suppliers. In FY2023, based on the advice we received in dialogue with experts, we will identify suppliers that are closely tied to our company and highly important from an ESG perspective, and will conduct on-site audits.



Inflight meals using ingredients certified by ASC and GAP (For details, see the special issue "Sustainability of Restaurants in the Sky" on pp.103-104.)

2 Procurement of Products with Consideration for Human Rights

Relevant indicators

Percentage of inflight items using international certified paper that takes forest resources into consideration 100 percent

As for the service supplies and meals provided to our customers at the cabin and lounge, we adopt certified products that take into consideration the worker's rights involved in forestry, agriculture, and fishing. We strive not to be complicit in human rights violations such as poor working conditions, child labor, and land rights violations of indigenous peoples. In FY2022, 87.8 percent of paper products were replaced with certified products, and ten kinds of certified fishery and agricultural products were used. In FY2023, we aim to increase the usage rate of certified paper products to 95 percent.



Special Assistance Counter

3 Improving Accessibility

Relevant indicators

Percentage of customers who find it difficult to travel compared to FY2019 results 2.5 times

In accordance with the JAL Group Accessibility Service Policy, we are working to create fun and entertaining travel by providing stress-free travel options to all customers. We promoted initiatives based on four pillars (employee education, environmental improvement, information dissemination, and accessible tourism), including training and lectures to enhance empathy through interaction with para-athletes, pre-flight workshop to relieve various concerns about flying, and tours for customers with developmental disabilities. In FY2023, we will continue to strive to improve accessibility based on the four pillars.



Touchless computers at the airport

4 Prevention of Infectious Disease Expansion

End

Relevant indicators

Bottom three answers to questions that is concerned about DVS infectious disease measures

We are working to ensure that all customers can enjoy a safe and secure air travel. In FY2022, we promoted initiatives based on three pillars (improve hygiene and cleanliness, use digital technology to make touchless automatic and self-service, and support travel), including employee education on hygiene and infectious disease and the implementation of "hospitality service utilizing facial recognition trial" at Amami Airport. We will continue to provide airport and inflight services that allow customers to travel with a peace of mind. In the light of the gradual shift to the post-coronavirus era, we will change the position of these issues from priority issues in FY2023.



Exchange of views on human trafficking with airport companies

5 Prevention of Human Trafficking

Relevant indicators

Attendance rate of education related to respect for human rights 100 percent

The JAL Group regards unintentional complicity in human trafficking by air transport as a particularly important human rights issue. In FY2022, continuing from the previous year, all employees were provided with education on the respect for human rights, including information on the prevention of human trafficking. In addition, as part of our efforts with external stakeholders, we invited officers from the National Police Agency to tell us about the current situation in human trafficking in Japan. We held panel discussions with staff from airports and cabins in the company. In FY2023, we will continue to educate all employees on the prevention of human trafficking, expand the scope of our external stakeholders, and take on prevention measures.

6 Prevention of Human Rights Violations by External Dissemination

NEW

Relevant indicators

Attendance rate of education related to respect for human rights 100 percent

Amid the increasing complexity of the environment surrounding the JAL Group, we will establish a checking system to ensure that there are no human rights violations committed unintentionally through external dissemination. This issue was newly added in FY2023. In FY2023, we will strengthen the checking system so that the main department can make effective confirmations. To raise awareness among employees, we will also incorporate this content into training programs related to the respect for human rights and work to prevent violations of human rights caused by external dissemination.



Training for managers, including harassment prevention

7 Prevention of Harassment

Relevant indicators

Number of violations of the Code of Conduct 0 cases

We have established the Regulations on the Prevention of Harassment in the Workplace, explaining in detail the various definitions of harassment, the prohibition and clearly stating that violations will be subject to disciplinary action. In addition to the Harassment Consultation Service, we have established a 24-hour compliance consultation service (Group Hotline) and a sexual harassment consultation service dedicated to cabin attendants. In FY2022, in addition to employee education, we also provided training on the emotional care of employees for managers, who have been subjected to customer harassment. In FY2023, we will conduct additional compliance education for all JAL Group employees and conduct workplace visits to ensure compliance. We will also deepen our efforts against customer harassment.

8 Prevention of Long Working Hours

Relevant indicators

Total working hours 1,850 hours/person
Ratio of employees who work long hours 0 percent
Annual paid leave usage ratio 100 percent
Average number of hours per month for overtime and holiday work 4 hours/person (Linked to 1,850 hours of total working hours)

With the aim of curbing overtime and holiday work, we are developing a system to support flexible workstyles, such as a system to change working hours, a superflex system, and a system that allows employees to take paid leaves on an hourly basis. In addition, we are making efforts to create an environment in which employees can easily take time off, including workcation that allows employees to work remotely during vacation periods, and bleisures that allows employees to take time off during business trips. In FY2022, we conducted a seminar on working hours management for managers and reviewed internal rules for telework. We promoted a hybrid work system that combines office attendance and telework, enabling employees to choose where to work while being conscious of productivity and communication. In FY2023, we will continue to hold seminars on working hour management for managers. We will also reduce the number of working hours by improving the efficiency of our business processes and changing our decision-making processes.



Workcation promotion activities with outside parties

9 Fair and Impartial Hiring and Promotion

Relevant indicators

Proportion of women in management 30 percent
Employment rate for persons with disabilities 3.2 percent
Percentage of men taking childcare leave 100 percent

The JAL Group strives to be a company where everyone can play an active role regardless of gender, age, nationality, race, ethnicity, religion, social status, disability status, sexual orientation, gender identity, or company of origin. In FY2022, for the seventh consecutive year, the company was awarded the highest "Gold" award in the "PRIDE Index*" developed by the voluntary organization "work with Pride". In addition, employees with disabilities attended an autonomous career development training, an internal intern system. To further encourage the success of diverse human resources, we took advantage of diverse perspectives to operate booths at LGBTQ-related events (local pride events) held across Japan. To promote the understanding of disabilities, we collaborated with other companies in the planning and management of events. In FY2023, we will promote the expansion of opportunities for people with disabilities to play an active role and to achieve the target number of employment for people with disabilities set forth in the JAL Group Medium Term Management Plan Rolling Plan 2023.

work with Pride "Pride Indicator 2022"

*Indicators for evaluation of LGBTQ+ and other sexual minority initiatives by companies and organizations

10 Prevention of Discrimination Against Race and Culture

Relevant indicators

Number of facilities developed in consideration of DEI

As the number of foreign employees has increased in the global environment, we are working to develop human resources that can respect diverse cultures and create new values. In FY2022, we conducted a survey to group companies that employ a large number of non-Japanese employees dialogues with employees who work abroad, to identify human rights issues arising from the increase in the number of non-Japanese employees. Based on what we have identified, we will work to make further improvements. In FY2023, we will establish rules to support non-Japanese employees, which is expected to increase in the future, and will endeavor to prevent cases of human rights violations. We will also conduct internal events to promote understanding of unconscious bias and work to prevent discrimination.



Internal events to promote understanding of unconscious bias

11 Prevention of Personal Information Leakage

Relevant indicators

Number of incidents 0 cases

The JAL Group provides information security education and targeted email attack training for all employees to raise their awareness of information security. In FY2022, we continued similar efforts to raise employees' awareness of information security. We also strengthened information security through stocktaking of unnecessary IDs and other measures to prevent personal information leakage by customers and employees. In FY2023, we will continue to raise employees' awareness of information security and prevent personal information leakage of customers and employees.



Information security education materials for all employees

Build better relationships with stakeholders

Efforts by Corporate Citizenship Activities

As a good corporate citizen, the JAL Group aims to build better relationships with its stakeholders and contribute to the development of society. As part of our corporate citizenship activities, we will use our know-how as an airline company to create opportunities to think about the future of the environment and society, foster the next generation, support culture and sports, and work with various stakeholders. We support volunteer activities by our employees.

Topic 1 JAL SORAIKU®

JAL SORAIKU® aims to provide students with the opportunity to think about their future and the future of the global environment by exploring the wonders of the sky and the joy of flying. We have held online classes, SORA-ECO Classes, origami plane classes, and virtual JAL Factory tours as activities that can be done during COVID-19. In addition, we have also resumed face-to-face activities. We encourage people to think about the future through online programs and face-to-face interactions.



An online class on the job of cabin attendants

Number of JAL SORAIKU® participants (past 4 years)

Fiscal Year	FY2019	FY2020	FY2021	FY2022
Number of people	191,840	20,435	50,147	52,586

Topic 3 Culture and Sports Support

In support of a D&I society that recognizes individual differences and promotes active participation, we have expanded our support and sponsorship from the “the School of Challenge for Tomorrow” program³ to encompass all five programs under “the School of Challenge for Tomorrow” initiative⁴ and are working to further promote a barrier-free mindset through parasports so that everyone can feel the importance of challenging themselves to something new.



Elementary school students experiencing Wheelchair Basketball (Credit: the Nippon Foundation Para Supports Support Center)

Results (last three years)

Fiscal Year	FY2020	FY2021	FY2022
Participating school	129 schools	277 schools	797 schools
Number of people	(12,559)	(23,960)	(73,246)

*1 A universal teaching method that combines the comprehensive study of science, technology, engineering, art, and mathematics. It is an educational philosophy that adds creativity education to science and mathematics education, aimed at cross-disciplinary learning to create a cycle of learning (seeking) and making (creating).
*2 Already closed.
*3 Hands-on para-sports classes for elementary, junior high and high schools hosted by the Nippon Foundation Para Sports Support Center
*4 Education and training programs conducted by para-athlete instructors are not limited to students but also targeted towards corporations, local governments, and all generations throughout Japan.

Topic 2 Education Content Delivery

We offer JAL STEAM SCHOOL, a class in which pilots explain the world of aircraft and aviation from the perspectives of STEAM^{*1}. In addition, JAL STEAM SCHOOL Portable, an interactive program that summarizes the contents of the class in an easy-to-understand manner, is exhibited in science museums and other venues throughout Japan to provide opportunities for more people to develop their creative thinking skills. Furthermore, in collaboration with DOCOMO gacco, we introduced “People who Work in Airline Industry”^{*2} presented by JAL Group employees in gacco®, a video learning service.



Experiencing JAL STEAM SCHOOL Portable

Topic 4 Ensuring Air Transport and Supporting Affected Areas

In response to the earthquake off the coast of Fukushima Prefecture in March 2022, from the day after the earthquake, we increased scheduled flights to and from the Tohoku region, assigned larger aircraft and operated extra flights (March to April: 672 flights) to maintain and secure air transportation for people in the Tohoku region. In addition, we conducted the following activities to provide assistance for natural disasters that occurred in Japan and overseas.

FY2022 Support Results

	Employee donations (to UNICEF)	JAL Charity miles
Earthquakes in Turkey and Syria	399,894 yen	2,875,500 yen
	Employee fundraising	JAL Charity miles
Torrential rains in August 2022 in Japan	305,622 yen	1,736,000 yen

For information on Charity Miles, visit the JAL website.

WEB <https://www.jal.co.jp/jp/en/jalmile/use/charity/>

Major External Evaluations (2022 to 2023)

Major ratings and awards are also posted on the JAL website.

WEB <https://www.jal.com/en/outline/awards.html>

WEB <https://press.jal.co.jp/en/awards/>

Comprehensive evaluation of service quality, safety well-being initiatives, and sustainability initiatives



APEX[WORLD CLASS]
First Japanese airline



APEX[FIVE STAR]
First Japanese airline

Evaluation of airport and in-flight products and services



SKYTRAX[World Airline Star Rating]
From 2018



SKYTRAX[World's Best Economy Class]
(Third time)
SKYTRAX[Best Economy Class Airline Seat]
Six consecutive terms (seventh)

Evaluation of sustainability

Member of
Dow Jones Sustainability Indices

Powered by the S&P Global CSA

Dow Jones Sustainability Asia Pacific Index
Selected for the first time



FTSE Blossom Japan Index



FTSE Blossom Japan Sector Relative Index



Evaluation of DEI initiatives



work with Pride "Pride Indicator 2022"
Top "Gold" for seven consecutive years since 2016

2023 CONSTITUENT MSCI JAPAN
EMPOWERING WOMEN INDEX (WIN)



JobRainbow[D&I Award 2022]
Best Rating "Best Workplace"

Evaluation of workstyle innovation



The Ministry of Internal Affairs and Communications' 100 Best Telework Pioneers

Evaluation of health and productivity management



Selected by METI and the Tokyo Stock Exchange as health and productivity management for the fifth time in two consecutive years



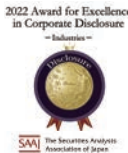
Twenty-four JAL Group companies were certified as "Certified Health & Productivity Management Outstanding Organizations Recognition Program" by METI and the Japan Health Council

Evaluation of DX initiatives



DX銘柄2023
Digital Transformation

Evaluation of disclosure



Japan Securities Analysts Association "Award for Excellence in Corporate Disclosure"
No. 1 in transportation for the fourth time in five years



Selected as an Environmental Sustainable Company at the 4th ESG Finance Awards Japan

Evaluation of Wellness Promotion



Accreditation of Sports Ale Company Bronze by the Sports Agency for the sixth year, and the second accreditation of Sports Ale Company 2023 Bronze for two consecutive years.

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