



First Tour of Eco-Kids Club 2018

# Environment Management

## Targets

- Dialogue with stakeholders
- Pursue the creation of value by taking measures in collaboration with stakeholders to reduce the environmental impact of airport activities throughout society as a whole
- Reducing the environmental impacts in coordination with airports in Japan and abroad
- Environmental conservation through environmental assessments and verification
- Environmental management that uses environmental certification programs
- In the lead up to the 2020 Tokyo Olympic and Paralympic Games, take various measures, conduct trials of and introduce new technologies, and present our vision of an eco-airport to the world

# Environmental Management System

Based on an original management vision, we formulated an Environmental Master Policy, later establishing the Eco-Airport Vision, as well as the Eco-Airport Master Plan, which contains specific targets for airport-wide initiatives (see pp. 3–5). As a framework for expediting progress in the Eco-Airport Master Plan, we also set up the Eco-Airport Promotion Committee,\*1 composed of executives, and the Eco-Airport Promotion Council,\*2 a subordinate body composed of department heads, as well as Eco-Leaders\*3 in each department.

Additionally, a Regional Environmental Committee comprised of academics and experts has also been established as an advisory body to the NAA President and CEO, in order to investigate and discuss important issues such as environmental management systems and environmental strategies at Narita International Airport.

With the Eco-Airport Development and Planning Council at its center, this airport-wide framework promotes the implementation of various environmental initiatives. To achieve the overall objective of the Master Plan, it is important that we strengthen the promotion framework in cooperation with all stakeholders through proactive communication. We are committed to promoting Environmental management based on this concept.

\*1 The Eco-Airport Promotion Committee is a committee of NAA executives under the leadership of the Senior Vice President in charge of environment issues.

\*2 The Eco-Airport Promotion Council is a subordinate body to the Eco-Airport Promotion Committee, composed of Eco-Airport Promotion Personnel (department heads).

\*3 Eco-Leaders carry out environmental initiatives in each department and play a leading role in ensuring that those initiatives permeate and expand both inside and outside NAA.

# Working with Stakeholders

## Airport Communications

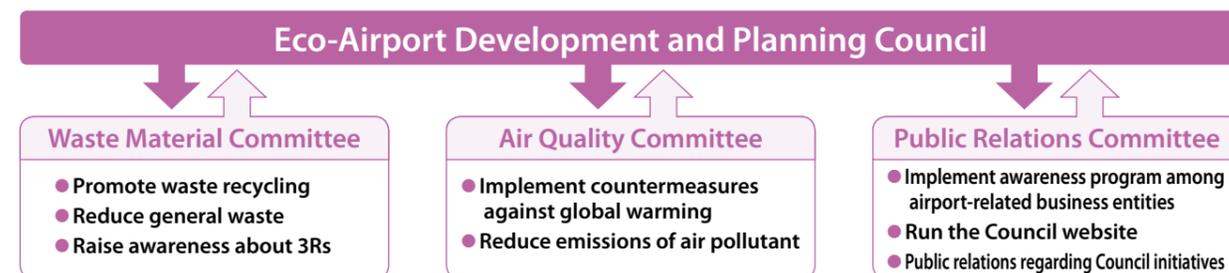
### Narita International Airport Eco-Airport Development and Planning Council

Narita Airport is operated by around 700 companies, related government agencies, and other bodies. It is crucial to share information and work with these airport-related business entities to alleviate environmental impact of the airport. In 2005, we set up the Narita International Airport Eco-Airport Development and Planning Council in conjunction with these companies and organizations to further airport-wide environmental initiatives. The council comprises 21 companies, seven organizations, and nine governmental agencies, including airline and airfreight forwarder associations, all sharing the objective of promoting eco-airport activities.

The council meets about twice a year to hold progress reports on initiatives and their progress towards achieving the targets of the Eco-Airport Master Plan. The specific measures under the individual initiatives are examined and implemented by the Council's three subcommittees.



Eco-Airport Development and Planning Council



### Eco-Airport Development and Planning Council Members (as of September 1, 2018)

Narita International Airport Airline Operators' Committee	NARIKOH Co., Ltd.	Narita International Airport Taxi Operators Committee	Narita Airport District Immigration Office
Japan Airlines Co., Ltd.	Narita Airport Security Company Liaison Council	TOKYO GAS Co., Ltd.	Narita Airport Quarantine
All Nippon Airways Co., Ltd.	Narita Airport Facilities Corporation	TEPCO Energy Partner, Incorporated	Narita Office, Yokohama Plant Quarantine Station
Nippon Cargo Airlines Co., Ltd.	Greenport Agency Co. Ltd.	Narita Chapter, Japan Air Cargo Forwarders Association	Animal Quarantine Service, Narita Branch
JAL Ground Service Co., Ltd.	JAL Airtech Co., Ltd.	Narita Bonded Forwarders Association	Narita International Airport Police Station, Chiba Prefectural Police
ANA Narita Airport Services Co., Ltd.	Narita Local Hotels Association	Narita International Airport Terminal Tenants Association	Japan Post Co., Ltd., Narita Office
AGP Corporation	East Japan Railway Company	Narita Airport Office, Tokyo Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism	NAA
Japan Airport Service Co., Ltd.	Keisei Electric Railway Co., Ltd.	Narita Aviation Weather Service Center, Ministry of Land, Infrastructure, Transport and Tourism	
TFK Corporation	Airport Transport Service Co., Ltd.	Narita Branch Customs	
Narita Kuko Biseisha Co., Ltd.	Keisei Bus Co., Ltd.	Tokyo Customs Narita Air Cargo Sub-branch	

### Waste Material Committee

The Waste Material Committee conducts activities aimed at promoting the 3Rs of waste for the recycling of resources. In fiscal 2017, the Committee redistributed the poster "Waste Sorting and Disposal" and re-notified tenants about sorting methods to raise awareness about the adequate disposal of waste.

The Committee carries out various programs throughout the airport such as posting signs for saving potable water on restroom sinks and encouraging green purchasing to reduce the environmental burden related to airport activities.



"Waste Sorting and Disposal" poster

## Air Quality Committee

The Air Quality Committee takes measures to address global warming and reduce air pollution. In fiscal 2017, the Committee worked to raise awareness among airport staff by encouraging them to participate in the Light Down Campaign, which calls for nighttime illumination to be reduced and to save energy in other ways with the aim of cutting CO<sub>2</sub> emissions. The committee also conducted two Eco-Drive Campaigns in June and November, encouraging people driving to the airport to engage in the eco-driving and minimize idling times as a means of decreasing CO<sub>2</sub> and air pollutants.



Eco-Drive Campaign

## Public Relations Committee

As publicity activities to raise awareness among airport staff, the Public Relations Committee holds annual events such as the Narita Airport Eco-Festa and Airport Cleanup Drives. In March 2018, the Committee held a lecture for airport staff on the theme of measures against global warming that the airport can take, which attracted about 100 participants. The Committee also enhanced the content of the Council's website and the content of PR materials displayed in the passenger terminal buildings, and it solicited submissions of Narita Eco-haiku (short Japanese poems on ecology and the environment) and eco-photographs to make even more people aware of environmental initiatives at Narita International Airport and the activities of the Council.



The environmental lecture



Eco-Airport Development and Planning Council website (Japanese version only)  
<https://www.naa.jp/eco/>



PR display in passenger terminal

## COLUMN

### Narita Eco-Haiku and Eco-Photo Gallery 2018

Eco-Photo Gallery and Narita Eco-Haiku, which began as projects to allow people to familiarize themselves with environmental initiatives and have fun participating in them, marked their sixth year. Eco-Photo Gallery solicits submissions of photographs on themes such as the beauty of the nature around the airport, as well as aircraft, the airport, and ecology. This year, 456 works were received. A selection of submissions including the Chairman's Prize winning photograph can be viewed on the Council's website and are displayed at the NAA Art Gallery in Passenger Terminal 1.

As for Eco-Haiku, we receive many submissions from around the country every year. They express a high level eco-awareness by their ecological ideas in daily life, putting emphasis on the importance of environmental conservation. This time, which marked the 10th time the event was held, we solicited works on the theme of the "sky."



Eco-Airport Development and Planning Council Chairman's Prize  
Pen name: Lotus Frog  
Location: North side of Runway B



Eco-Airport Development and Planning Council (Japanese version only)  
[web https://www.naa.jp/eco/fun/index.html](https://www.naa.jp/eco/fun/index.html)

## Connecting with the Community

In line with our management vision that aims for Narita International Airport to coexist in harmony with the local community with respect for the environment, we have been maintaining environmental communication with residents in the surrounding area. We strive to maintain close relations with relevant persons in charge in the surrounding municipal governments, and to exchange views through the Narita Airport Noise Mitigation Committee, municipal government meetings, residential briefings, and regional events.

## Participating in Events

To strengthen communication with local residents, we participate in events held at the airport and its surrounding areas. On these occasions, we introduce our environmental initiatives through panel displays and quizzes, and we also distribute compost made from airport kitchen waste (see p. 29).



Airport Event

## Regional Consultation Centers

We have established five regional consultation centers to receive requests and opinions regarding airport operations and environmental problems such as aircraft noise, and to promote interactive dialogue with local residents: the North Area Consultation Center (Narita City, Chiba Pref.), the South Area Consultation Center (Shibayama Town, Chiba Pref.), the East Area Consultation Center (Tako Town, Chiba Pref.), the Sanbu Area Consultation Center (Yokoshibahikari Town, Chiba Pref.), and the Ibaraki Area Consultation Center (Kawachi Town, Ibaraki Pref.) (see p. 65). The comments received from the public are shared with relevant departments and reflected in our environmental measures.

## COLUMN

### Opening of New East Area Consultation Center

The new East Area Consultation Center was opened in April 2018 as a consultation center for local residents.

This center offers consultations on aircraft noise and soundproofing work supported by NAA, as well as various information about airport operations, mainly to residents of Tako Town.

In addition to the existing four centers, this fifth center allows us to respond to opinions and inquiries from many people in surrounding areas, making them feel more familiar with our airport.



East Area Consultation Center

# Communicating with the Public

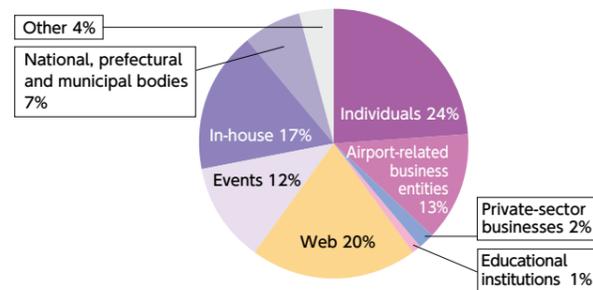
We make every effort to have the environmental initiatives at Narita International Airport known by a wider circle of residents around the airport and by the public in general. In addition to environmental education for children, who hold our future in their hands, we pursue a wide variety of PR opportunities such as environmental exhibitions to introduce our environmental measures in place at Narita International Airport. We also participate in academic conferences on environmental topics such as noise and air quality, and exchange information about the latest trends.

## Publishing Environmental Information

We proactively disseminate information to encourage a broader understanding of the environmental measures taken at Narita International Airport and the results achieved as a result.

Our environmental report is posted on the NAA website, distributed to airport-related business entities and local residents, and sent to libraries and universities throughout the nation. It is also registered on a free distribution site which can be either browsed online or mailed on request. To introduce customers about our environmental initiatives, a digest version of the report is also available in passenger terminals.

Environment Report FY 2017 Distribution



### Environmental Report

We present progress reports on environmental measures and initiatives in an easy-to-understand format, each year incorporating a special features section that deals with current issues. Six thousand booklets in Japanese and 500 in English were published in fiscal 2018. Additionally, 12,000 Japanese booklets and 2,000 English booklets of the digest version were distributed at information counters in passenger terminals.



### Websites

Our environmental report can be read on the NAA website, along with progress reports on a wide range of environmental initiatives. Also, flight tracking data, aircraft noise, air quality, and water quality measurement results are available at Narita Airport Environmental Community, an environmental information website.



NAA homepage:  
<https://www.naa.jp/en/index.html>



Narita Airport Environmental Community:  
<http://airport-community.naa.jp/>  
(Japanese version only)



Narita International Airport website:  
<https://www.narita-airport.jp/en>

### Eco-Airport Corner

The Eco-Airport Corner is located in the Museum of Aeronautical Sciences (see p. 65). The corner allows children to see, touch and feel first-hand, introducing them to Eco-Airport activities through such kid-friendly means as fun quizzes and noise adventure rooms. Around 200,000 people visit the museum every year.



Museum of Aeronautical Sciences



Eco-Airport Corner

### Airport Information Corner

The Airport Information Corner (see p. 65) in the Narita Airport Historical Museum enables local residents to drop in and view information on the airport, environmental measurements, and aircraft tracking data.

### Regional Consultation Centers

There are five regional consultation centers located around the airport to respond to inquiries from local residents. For details, see pages 43 and 65.

### NAA Information Room

The NAA Information Room (see p. 65) located on the first floor of the NAA Head Office Building provides access to the Narita Airport Environmental Community as well as panels about the airport and our publications.



NAA Information Room

## Narita Airport Eco-Kids Club

In 2005, we opened the Narita Airport Eco-Kids Club for children in the fifth and sixth grades of elementary school. The club's aim is for the next generation to learn about environmental initiatives at Narita International Airport, experience the natural environment surrounding the airport firsthand, and understand the importance of

protecting nature. Its eco-tours are held three times a year, and some 700 children have participated so far. In fiscal 2018, 55 elementary school students from the Kanto area including Tokyo and Chiba are participating as the 14th holding of Eco-Kids.

## COLUMN

### Eco-Kids Club 2018 First Eco-Tour Report

On August 21, during the summer vacation, we held the first Eco-Tour of Narita Airport Eco-Kids Club 2018. Fifty-one elementary school students learned about the environment from various perspectives such as observing the supply of power and air conditioning from a GPU (ground power plant) to an aircraft, experiencing noise measurement first hand, visiting the NCA Crew Training Center, and attending a touring classroom by Tokyo Gas Co., Ltd. The lively Eco-Kids showed an eager disposition toward learning about the environmental initiatives.

#### Tour of NCA Crew Training Center

At the NCA Crew Training Center, the children toured the facilities that pilots and mechanics used for their training, thanks to our collaboration with Nippon Cargo Airlines Co., Ltd. The staff explained about a highly technical level of flight simulator (full flight simulator) and emergency equipment, and various kids proactively asked questions while taking notes.



#### Noise Measurement Experiment

In the noise measurement experiment, the kids measured the sound level of aircraft taking off and landing with actual measuring instruments, near the Flower Clock by Runway A. After that, they carried out a "yelling competition" to see which team could yell the loudest, using the noise measuring instruments to judge actual loudness levels. Everyone did their best cheerfully yelling out loud.



#### GPU Tour

With the cooperation of AGP CORPORATION, the kids visited GPU facilities that supply aircraft with power and air conditioning directly from the ground. They were introduced to our initiatives to reduce noise generated by parked aircraft, greenhouse gas, and air pollutants by encouraging the use of GPUs at Narita International Airport. When they experienced the strong flow of air cooled down to 2-3 degrees Celsius blowing out of the hose, the participants cried out with excitement.



#### Touring Classroom by Tokyo Gas

Tokyo Gas Co., Ltd. conducted a lecture on the themes of "What is a fuel cell" and "The secret of yellow gas pipes." The participants learned about the mechanism of eco-friendly fuel cells in a fun way through experiments. When making kaleidoscopes from used yellow gas pipes, the children were keen to choose colorful beads.



#### Comments from Eco-Kids



Here are some of the comments from the participants:

"During this tour, I got interested in the environment and especially airplanes. It was great."

"I got along well with kids I did not know, I learned about a lot of things besides airplanes, and it was a lot of fun."

"I learned lots of things I didn't know. I'm going to teach my mother various things when I go home."

## Touring Environmental Classrooms

For the purpose of introducing our environmental initiatives and providing better understanding of them, we offer the Touring Environmental Classrooms for junior high school students in the surrounding area, hosted by the Narita Airport Regional Symbiosis Promotion Foundation. Using presentation slides, we explained about our recycling activities, the switch to LED lighting, and measures to reduce aircraft noise.

Staff members were also dispatched to a university in Chiba Prefecture to give a lecture on our environmental management and measures implemented at Narita International Airport.



Lecture for junior high school students

Environment lecture at a university

## Participation in Eco-Products Exhibition

We have been participating in "EcoPro: International Exhibition on Environment and Energy" since 2004. It is the largest environmental exhibition in Japan and is held in Tokyo every December. In fiscal 2017, we set up an airport booth together with Japan Airport Terminal Co., Ltd., Kansai Airports and others, and displayed panels introducing the measures at the airports regarding CO<sub>2</sub> emissions, recycling, noise and so forth. The airport booth attracted some 5,000 visitors, including environment staff and students. The exhibition provided a good opportunity to acquaint people with the environmental measures conducted at Narita International Airport.



EcoPro 2017

## COLUMN

### Cleanup Drives in and around the Airport

In fiscal 2004, in cooperation with Shibayama Town, we began a roadside beautification and cleanup drive in the southern area of the airport, taking place each summer and winter, in order to provide a more pleasant airport environment for our customers.

The program was expanded in fiscal 2005 including roads within the airport and was held jointly by the Eco-Airport Development and Planning Council and Narita Airport CS Council\* in cooperation with other airport-related business entities. In fiscal 2012, the campaign was expanded to include airport apron areas.

Every year, many airport-related business entities participate, and in the 36th cleanup drive held in July 2018, more than 500 staff took part, as well as the mayor of Shibayama, and the President and CEO of NAA.



Cleanup drive at the southern area of the airport



Cleanup drive within the airport site

\* **Narita Airport CS (Customer Satisfaction) Council** is comprised of organizations which deal directly in customer service. It is responsible for improvement of CS throughout Narita International Airport and pursues a variety of activities.

## INTER-NOISE 2018

INTER-NOISE, under the organization of the International Institute of Noise Control Engineering (I-INCE), is the world's largest international conference on noise and vibration control, held every year in rotation by participating nation organizations since 1972. Experts from universities and research institutions from around the world gather to present papers and hold discussions about a wide range of topics, including not only aircraft noise, but other transportation noise and general environmental noise. INTER-NOISE 2018, hosted by Institute of Noise Control Engineering of the USA (INCE-USA), was held in Chicago in August on the main theme of "the impact of noise control engineering." NAA employees were in attendance

and made a presentation regarding further functionality enhancement of Narita International Airport. Not a few airports in Europe and the United States face similar noise issues, and the presentation was received with a lot of interest.



INTER-NOISE 2018

## Communication with Airports in Japan and Abroad

We believe that collaboration with other airports in Japan and abroad toward common tasks will lead to the resolution of airport environmental issues on a global scale. In addition to strengthening our partnership with major international airports in Japan, we exchange ideas and information with overseas airports through the ACI\* Regional Environment Committee and through personnel exchanges with sister airports.

\* **ACI (Airports Council International)** is a trade association of the world's airports who work together to promote environmental conservation as well as safety, convenience, and efficiency in international air transport.

## ACI Activities

We are a member of ACI, which is an organization of 641 bodies (as of January 2018) managing 1,953 airports in 176 countries and regions. Presently, we contribute a member to the Environment Standing Committee, which is one of the expert committees. In June 2018, the 37th Environment Standing Committee was held in Oslo, Norway, and saw the active exchange of opinions and views concerning issues such as aircraft noise and adaptation to climate change.

NAA also belongs to the Asia-Pacific Regional Environment Committee, which is made up of representatives from ACI member airports in Asia, Middle East, and Oceania. In March 2008, the 9th Regional Environmental Committee was held in Brisbane, Australia. We shared information and discussed topics on environmental measures implemented by member



airports such as waste management methods. As for NAA, we made presentations on environmental measures and environmental assessment within the context of further functional enhancements of Narita International Airport.

## Environmental Liaison Conference with Major Airports in Japan

The "Environmental Liaison Conference with Major Airports in Japan," which was formed in 2007, currently includes NAA, Kansai Airports, Central Japan International Airport Co., Ltd., Japan Airport Terminal Co., Ltd., and New Chitose Airport Terminal Building Co., Ltd. The conference is held several times a year at member airports having information

exchanges and facility tours.

Through this conference, we exchange information on best practices at each airport, deepen mutual collaboration, and tackle issues that are difficult to solve at a given airport, such as measures against global warming.

# Implementation of Environmental Assessments

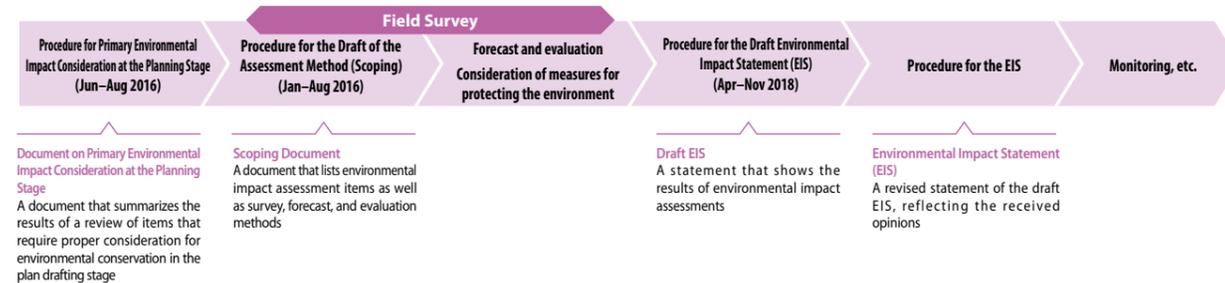
## Environmental Impact Assessment

Environmental Impact Assessment (EIA) is a system to provide for the environmental impacts of development projects to be surveyed, forecasted, and evaluated by proponents in the process of designing the project. The results are opened to the public to obtain opinions, both from citizens and from local governments. The best project scheme can be developed incorporating these various viewpoints and addressing the issue of environmental protection. This system was enacted in the Environmental Impact Assessment Law (EIA Law) in 1997. Up to now, Narita Airport has implemented various plans, including "Development Related to Initial Plan," "Development of Expanding Runway B to 2,500 meters by Extension to the North," and "Apron and Taxiway Development for Expansion of Airport Capacity to 300,000 aircraft movements." However,

these projects were based on the master plan developed in 1966 before the EIA Law was enacted. Although EIAs for the projects were not required, NAA voluntarily conducted them. In March 2018, the Four Party Council on Narita International Airport, which is made up of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Chiba Prefectural Government, the nine municipal governments around Narita Airport, and NAA, reached a final agreement on "further functional enhancements of Narita International Airport," including construction of an additional runway. Further functional enhancements are new projects based on the new master plan. According to their business scale, they are subject to environmental assessments based on the EIA Law.

\* **Projects applicable to environmental assessments (airfield):** Construction of a new runway 2,500 meter-long or more; extension of a runway by 500 meters or more.

## Environmental Impact Assessment Procedure



As of October 2018, we are proceeding with the preparation of a Draft Environmental Impact Statement. Next, we will prepare an Environmental Impact Statement, reflecting the views received from the general public and related municipal bodies.

## Assessment Items

Evaluation items are selected by consideration of the business plan and regional characteristics.

Environmental Factor	Impact Factor	Status		Impact to be Assessed
		Under Construction	In Operation	
Keeping natural environmental elements in good condition	Air quality	○	○	Construction equipment operation during construction, and increased aircraft movements when in service
	Noise	○	○	
	Low frequency noise	○	○	
	Vibration	○	○	
Sustaining biodiversity and systematically conserving the natural environment	Water quality	○	○	Turbid water during construction, and waste water containing de-icing agent when in service (see p. 23)
	Hydrological environment	○	○	
Sustaining biodiversity and systematically conserving the natural environment	Animals	○	○	Conversion to the habitats of plants and animals
	Plants	○	○	
	Ecology	○	○	
Communing with nature	Scenery		○	Changes to the scenery, and to places where humans interact with nature
	Places for people to connect with nature		○	
Burden on the environment	Waste matter	○	○	Increased waste matter from felling trees during construction and an increase in air passengers when in service
	Greenhouse gas	○	○	Construction equipment operation during construction, and increased aircraft movements when in service

# Environmental Management through Environmental Certification Programs

## Participation in Airport Carbon Accreditation Program and Achievement at Level 2

Participation in the *Airport Carbon Accreditation* program is expanding within Airports Council International (ACI), the trade association of the world's airports. This program was launched by one of ACI's five regions, ACI Europe, in 2009. ACI Asia Pacific, which Japan is a member of, joined in 2011, and the remaining regions followed suit, with global adoption of the program achieved in the second half of 2014.

It independently assesses and recognizes the efforts of airports to manage and reduce their carbon emissions through four levels of certification.

As worldwide efforts to combat global warming are progressing, Narita International Airport has formulated an Eco-Airport Master Plan to promote environmental initiatives throughout the airport as an environmentally friendly, recycling-oriented "eco-airport" from a global perspective. According to the original plan, we are committed and actively working to reduce airport CO<sub>2</sub> emissions, along with airport-related business entities, including airlines and cargo operators.

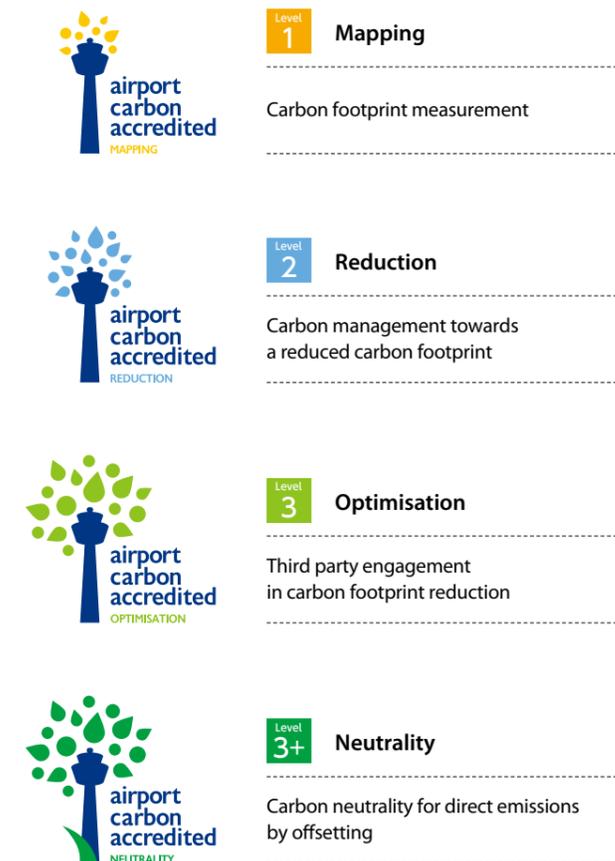
To accelerate our efforts, we participate in the Program, and Narita International Airport was accredited at Level 2 in January 2018. The achievement of Level 2 was attributed that CO<sub>2</sub> emissions from NAA and its subsidiary companies had been reduced.

Narita International Airport will continue using the *Airport Carbon Accreditation* program, pursuing higher levels, to work with airport-related business entities in achieving further reduction in CO<sub>2</sub> emissions and pushing forward with global warming countermeasures.



Certificate of Accreditation at Level 2, Reduction

### Four Levels of Accreditation



Airport Carbon Accreditation Certificate Presentation Ceremony