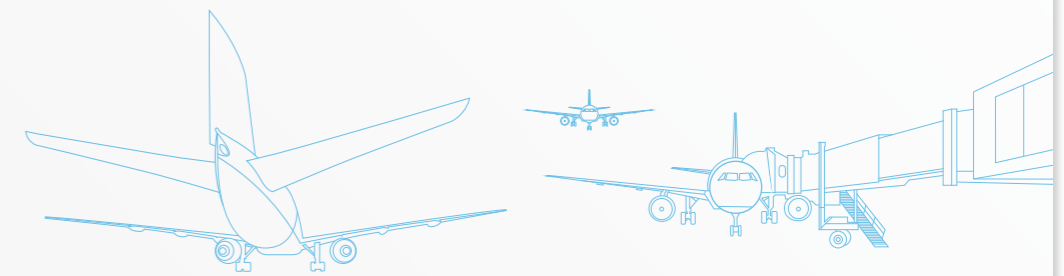




Eco-Airport Master Plan (FY 2016–2020) and Evaluation of FY 2017 Results



Community Environment Initiatives

*1 **Quieter aircraft:** Aircraft classified as Class A to C according to the Narita Aircraft Noise Index.

*2 **Low emission vehicles:** Electric, hybrid, plug-in hybrid, natural gas, fuel cell, clean diesel, and low fuel consumption, low emission certified vehicles (gasoline, diesel, and LPG)

Action Items	Description	Targets (FY 2020)	Results (FY 2017)
Reduce environmental impact from aircraft noise	<ul style="list-style-type: none"> Encourage the introduction of quieter aircraft*1 Limit the use of auxiliary power units (APU) and encourage use of ground power units (GPU) Strengthen noise mitigation measures Enhance aircraft noise monitoring and disclosure of results 	Reduce environmental impact from aircraft noise	Improvement of the ratio of quieter aircraft Adequate official announcement of aircraft noise measurement results
Conserve air quality	<ul style="list-style-type: none"> Encourage the introduction of low emission aircraft Implement measures to reduce aircraft taxiing times Limit the use of auxiliary power units (APU) and encourage use of ground power units (GPU) Promote energy saving at airport-related facilities Encourage the introduction of low emission vehicles*2 Enhance air quality monitoring in the vicinity of the airport and disclosure of results 	Conserve air quality Reduce air pollution (NOx) per flight by 5% compared to the benchmark year (FY 2015) FY 2015: 16.6 kg/flight	Air pollution (NOx) output 6.0% reduction relative to FY 2015 (15.6 kg/flight)
Maintain water quality of rainwater runoff	<ul style="list-style-type: none"> Properly use, collect, and process de-icing agent Take measures to prevent release of turbid water, etc. Create retention areas and settling grit chambers in construction areas during construction to prevent release of turbid water Divide construction zones to limit the occurrence of turbid water Enhance water quality monitoring in rivers, etc., in the vicinity of the airport and disclosure of results 	Maintain water quality of rain water runoff	Some fluctuation, but maintaining water quality of an average year for rain water runoff Achievement of environmental standards for underground water
Conserve natural environments that nurture biodiversity	<ul style="list-style-type: none"> Ascertain the status of the natural environment and take preservation measures for rare species Preserve agricultural environments Restore the <i>satoyama</i> (countryside forest) landscape Preserve the Greenport Eco-Agripark and use it for educational programs, etc. 	Conserve natural environments that nurture biodiversity	Suitable management of greening projects in airport area Greenport Eco-Agripark preservation and use
Implement and reinforce environmental initiatives in collaboration with local communities	<ul style="list-style-type: none"> Use noise control areas tailored to local conditions Encourage environmental conservation initiatives in collaboration with local communities 	Implement and reinforce environmental initiatives in collaboration with local communities	Suitable management of land vacated by relocation and lease of agricultural land implementation



Resource Recycling Initiatives

Action Items	Description	Targets (FY 2020)	Results (FY 2017)
Recycle resources	<ul style="list-style-type: none"> Reduce general waste and encourage recycling at airport-related facilities Encourage recycling of industrial waste (packaging material, wooden skids, and other waste) Encourage measures to reduce inflight waste from aircraft Take measures to raise awareness among passengers, employees, and other airport users Recycle concrete and asphalt waste material generated by the airport Take measures for the effective use of grass clippings, cut trees, etc. Encourage green procurement 	Recycle resources Reduce general waste incinerated per airport user by 5% compared to the benchmark year (FY 2015) FY 2015: 0.45 kg/person	General waste incinerated 6.7% reduction compared to FY 2015 (0.42 kg/person)
Recycle water resources	<ul style="list-style-type: none"> Implement potable water saving measures based on an analysis of water usage conditions by building and by season Encourage the installation of water-saving equipment when facilities are updated Reduce potable water usage by utilizing grey water Conduct activities to raise awareness among passengers, employees, and other airport users 	Recycle water resources Reduce potable water usage per airport user by 3% compared to the benchmark year (FY 2015) FY 2015: 30.9 L/person	Potable water usage 7.8% reduction compared to FY 2015 (28.5 L/person)



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Climate Change Initiatives

*COOL BIZ and WARM BIZ: A way of living in comfort while keeping room temperature at 28°C in summer and 20°C in winter.

Action Items	Description	Targets (FY 2020)	Results (FY 2017)
Reduce CO ₂ emissions from the airport	<ul style="list-style-type: none"> Encourage the introduction of low emission aircraft Implement measures to reduce aircraft taxiing times Limit the use of auxiliary power units (APU) and encourage use of ground power units (GPU) Take measures for the introduction of next-generation aviation fuels Encourage travel to the airport in low emission vehicles (install EV charging stations, natural gas and hydrogen stations) Encourage the introduction of low emission vehicles and eco-driving Generate electricity when incinerating waste through thermal recycling (thermal recovery) Select low carbon electric power sources when purchasing electric power Encourage the introduction of renewable energy 	Reduce airport CO ₂ emissions Reduce airport CO ₂ emissions per flight by 7% compared to the benchmark year (FY 2015) FY 2015: 4.30 t/flight	Airport CO ₂ emissions Reduced by 6.5% of FY 2015 levels (4.02 t/flight)
Reduce energy consumption	<ul style="list-style-type: none"> Increase installation of LED lights on taxiways Encourage energy-saving measures through energy management Conduct energy conservation programs (raise awareness of energy conservation, "COOL BIZ" and "WARM BIZ,"* etc.) Encourage installation of energy-saving equipment when constructing new facilities and renovating existing facilities 	Reduce energy consumption Reduce energy consumption by NAA-managed airport facilities per flight by 5% compared to the benchmark year (FY 2015) FY 2015: 15.1 GJ/flight	Energy consumption at NAA-managed airport facilities Reduced by 7.9% of FY 2015 levels (13.9 GJ/flight)
Take countermeasures to adapt to climate change in conjunction with global warming	<ul style="list-style-type: none"> Take appropriate preventive measures to address storms and other abnormal natural events 	Promote countermeasures for adaptation to climate change accompanying global warming	Review of snow and ice management system adapting to weather conditions in recent years



Environment Management

Action Items	Description	Targets (FY 2020)	Results (FY 2017)
Engage in dialogue with stakeholders	<ul style="list-style-type: none"> Promote dialogue with stakeholders Implement environmental conservation programs centered on the Eco-Airport Development and Planning Council Conduct environmental education and awareness activities for airport employees Publicly release environmental information such as noise, air quality, and water quality measurement results and flight routes Give presentations at environment-related conferences on noise, air quality, and other topics Conduct Eco-Kids Club programs, participate in environmental exhibitions, and conduct Touring Environmental Classrooms 	Engage in active dialogues with stakeholders	Held interactive dialogues with airport-related business entities through the council Held interactive dialogues with stakeholders through hosting the Eco-Kids Club and participating in environmental exhibitions Promoted interactive dialogues with local communities through establishment of a new regional consultation center
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	<ul style="list-style-type: none"> Encourage activities to reduce environmental impact in collaboration with stakeholders Encourage procurement that takes the environment into consideration 	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	Encouraged green procurement through the Council
Reduce environmental impact in collaboration with airports in Japan and abroad	<ul style="list-style-type: none"> Encourage information exchanges and joint environmental conservation activities through liaison conferences with other leading airports in Japan Exchange information with and express opinions to the Airports Council International (ACI) Exchange information with and provide technology to overseas airports 	Contribute to reducing the environmental impact in cooperation with airports in Japan and abroad	Exchanged information through the Environmental Liaison Conference with Major Airports in Japan Exchanged information through ACI activities
Environmental conservation through environmental assessments and verification	<ul style="list-style-type: none"> Conduct environmental assessments based on the Environmental Impact Assessment Act toward improvement of airport functionalities Conduct voluntary environmental assessments 	Conserve the environment by conducting environmental assessments and inspections	In line with the Environmental Impact Scoping Document, conducted surveys, forecasts, evaluations, study of environmental conservation measures, and so on Publicly disclosed voluntary environmental assessment (environmental findings) regarding the development of a taxiway (aircraft holding bay) on the north side of Runway A
Conduct environmental management using environmental certification programs	<ul style="list-style-type: none"> Encourage environmental management using environmental certification programs 	Conduct environmental management using environmental certification programs	Achieved <i>Airport Carbon Accreditation</i> Level 2 and promoted environmental management using methods of the program
In the lead up to the 2020 Tokyo Olympic and Paralympic Games, take various measures and conduct trials of and introduce new technologies and present our vision of an eco-airport to the world	<ul style="list-style-type: none"> Promote environmental measures to support low carbon, good air quality, and the 3Rs (reduce, reuse, recycle) Take measures toward the use of hydrogen energy at Narita Airport Take measures toward the introduction of next-generation aviation fuels Disseminate information on the eco-airport 	In the lead up to the 2020 Tokyo Olympic and Paralympic Games, trial and introduce various measures and new technologies, and present our vision of an eco-airport to the world	Utilized fuel cell vehicles as service vehicles for NAA