

QUESTIONNAIRE CONCERNING VOLUNTARY ACTIVITY FOR GHG REDUCTION/MITIGATION IN THE AVIATION SECTOR

Q1. Name of the voluntary activity.

ECO-Island Promotion Plan

Q2. Type¹ of the voluntary activity.

<input type="checkbox"/> Unilateral commitment <input type="checkbox"/> Public voluntary scheme <input type="checkbox"/> Negotiated agreement <input type="checkbox"/> Other (Please describe the activity in the box below)
Unilateral commitment

Q3. Please mark all the participants² of the activity.

<input type="checkbox"/> Airline <input type="checkbox"/> Airline association <input type="checkbox"/> Manufacturer <input type="checkbox"/> Manufacturer association <input type="checkbox"/> Airport authority <input type="checkbox"/> Air traffic control <input type="checkbox"/> Government <input type="checkbox"/> Other (Please specify in the box below)
Airline / Airline association (AOC) / CAB / Osaka prefectural Government

Q4. Is the voluntary activity accompanied by a side agreement³?

Yes (Proceed to Q4-1.) No (Proceed to Q5.) **NO**

Q4-1. If the voluntary activity is accompanied by side agreement, please describe the parties and outline the side agreement.

N/A

¹The feature of each type of the voluntary activities is as follows.

- Unilateral Commitment: The environmental improvement plan established by the participant itself, and declared to the stakeholders, such as employees, stockholders, consumers, etc. Target and measures to environmental improvement are established by the participant itself.
- Public Voluntary Scheme: Public: The scheme which the participant agrees voluntarily with the standard on environmental improvement target, technology, management, etc. established by public organization such as ministry for environment issue.
- Negotiated Agreement: Contract based on negotiation between public organization (national government/local government) and industries. Both parties can independently decide whether to agree to the contract.

² If you marked “Public voluntary scheme” on Q2, the public organization which establishes the standard is included to the participants. If you marked “Negotiated agreement”, the public organization which agrees to the contract is included to the participants.

³ “Side agreement” is the agreement between the participant of the activity and third party. For example, the agreement between an airline and an engine manufacturer, which prescribes that the manufacturer assist the airline to attain its target by introducing new emission-reducing technologies, is considered as third agreement. For more information, please refer to Part II Paragraph 6.5.2 on “Template and Guidance on Voluntary Measures”, released on ICAO CAEP website (http://www.icao.int/icao/en/env/Caep_Template.pdf).

Q5. Please answer the following questions concerning the coverage of the voluntary activity:

Q5-1. Select all green house gases (GHGs) which are part of the voluntary activity.

<input type="checkbox"/> Carbon dioxide (CO ₂) <input type="checkbox"/> Methane (CH ₄) <input type="checkbox"/> Nitrous oxide (N ₂ O) <input type="checkbox"/> Hydrofluorocarbons (HFCs) <input type="checkbox"/> Perfluorocarbons (PFCs) <input type="checkbox"/> Sulphur hexafluoride (SF ₆) <input type="checkbox"/> Nitric oxide & Nitrogen dioxide (NO _x) <input type="checkbox"/> Water vapor (H ₂ O) <input type="checkbox"/> Other (Please specify in the next box)
CO ₂ , CH ₄ , N ₂ O, HFCs, NO _x

Q5-2. Please select all operations⁴ which are part of the voluntary activity.

<input type="checkbox"/> International passenger flight <input type="checkbox"/> Domestic passenger flight <input type="checkbox"/> International cargo flight <input type="checkbox"/> Domestic cargo flight <input type="checkbox"/> Other (Please specify in the next box.)
<input type="checkbox"/> International passenger flight <input type="checkbox"/> Domestic passenger flight <input type="checkbox"/> International cargo flight <input type="checkbox"/> Domestic cargo flight

Q6. Please answer the following questions concerning the index to measure the effect of the voluntary activity

Q6-1. Select the index used to measure the effect of the voluntary activity.

<input type="checkbox"/> Absolute quantity of GHG emission ⁵ (Please outline the index in the box below) <input type="checkbox"/> Unit of GHG emission ⁶ (Please outline the index in the box below.) <input type="checkbox"/> Introduction of Specific technology <input type="checkbox"/> Introduction of specific procedure <input type="checkbox"/> Other (Please specify in the box below)
Other Percentage of GHG emission per aircraft movement compared to the benchmark year. We, KIX have set the year 2006 as the benchmark year.

Q6-2. Please outline the procedure to acquire data to calculate or describe the index of Q6-1.

We collect data by questionnaire to the business counterparts in/outside the airport.

⁴ In case that the voluntary activity describes its coverage from the other viewpoint than listed above, such as “operation under IFR”, “operation of aircraft larger than specific weight”, etc. and that aim of the activity is not linked to operation directly, for example introduction of new technology which contributes reduction/mitigation of GHGs, please mark “other” and please describe feature.

⁵ The example of the unit is Ton-CO₂, Ton-C, m³-CO₂, etc.

⁶ The example of the unit is g-CO₂/RPK(Revenue Passenger Kilometer), g-CO₂/ASK(Available Seat Kilometer), g-CO₂/RTK(Revenue Ton Kilometer), g-CO₂/ATK (Available Ton Kilometer), etc.

Q7. Please answer the following questions concerning the target of the voluntary activity.

Q7-1. Is the target of the voluntary activity clearly defined?

Yes (Proceed to Q7-2.) No (Proceed to Q8.) **YES**

Q7-2. Please describe the target of the voluntary activity, including substance of the target, target year, base year.

Base year : 2006

Target year : 2012

Based on the result of the year 2006, we intend to reduce the emission by 10%.

Q8. Please list the measures to attain the target or to reduce/mitigate GHGs.

1. Greater introduction of fuel-efficient aircrafts.
2. Promotion of the use of GPUs.
3. Introduction of more fuel-efficient vehicles in the airport.
4. Introduction of Hydrogen-based vehicles in the airport. (Cars and bicycles)
5. Use of thermal power stations and co-generation system.

Q9. Please answer the following questions concerning periodic review of the voluntary activity.

Q9-1. Is the progress of the voluntary activity reviewed periodically?

Yes (Proceed to Q9-2.) No (Proceed to Q10.) **YES**

Q9-2. Please describe the frequency of the periodic review.

Every year

Q9-3. Is third party's opinion considered/to be considered in the periodic review?

Yes (Proceed to Q9-4.) No (Proceed to Q10.) **NO**

Q9-4. Please outline the third party.

N/A

Q10. Please answer the following questions concerning legislative obligation.

Q10-1. Is there any legislative obligation on attainment of the target?

Yes (Proceed to Q10-2.) No (Proceed to Q11.) **YES**

Q10-2. Please describe legislative obligation, including measures taken in case that the participant of the voluntary activity fails to attain the target.

Law concerning the promotion of the measures to cope with global warming (By ministry of Environment)
 As the revise of Law concerning the rational use of energy in 2005, law concerning the promotion of business activities with environmental consideration by specified corporations, etc., by facilitating Access to environmental information, and other measures is now applied to our company.

1% reduction of CO2 emission from the facilities per year is mandatory by the law.

Q11. Please answer the following questions concerning disclosure of information⁷ on the voluntary activity:

Q11-1. Is the name of the participant of the voluntary activity disclosed to the public?

Yes No **YES**

Q11-2. Is the target of the voluntary activity disclosed to the public? (If you marked “no” at Q7-1, the answer to this question shall be “not applicable”.)

Yes No Not applicable **YES**

Q11-3. Are the measures taken/to be taken by the participant of the voluntary activity to attain the target/reduce or mitigate GHGs disclosed to the public?

Yes No **YES**

Q11-4. Is the result of each periodic review disclosed/to be disclosed to the public? (If you marked “no” at Q9-1, the answer to this question shall be “not applicable”.)

Yes No Not applicable **YES**

Q11-5. Is the effect of the voluntary activity disclosed/to be disclosed to the public?

Yes No
YES

Q12. Please answer the following questions concerning effect of the voluntary activity:

Q12-1. Is third party’s opinion considered/to be considered when examining the effect of the voluntary activity?

Yes (Proceed to Q12-2.) No (Proceed to Q12-3.) **YES**

Q12-2. Please outline the third party.

2 expertized professors in different universities.

⁷ Item(s) to which the answer is/are “no” from Q11-1 to Q11-5, are considered but this information will not be included in the final report.

Q12-3. How much of GHGs amount emitted per year, in CO₂ weight equivalent are reduced or mitigated/expected to be reduced or mitigated by the voluntary activity?

In the year 2006, the weight of CO ₂ emission was 544,000 tons and 3.52tons per aircraft movement.	
2007,	582,000 tons but 3.40tons
2008,	536,000 tons byt 3.12tons

Q13. Please provide the website address for the voluntary activity, if any, in the box below.

N/A

Q14. Please describe additional information, if any.

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