



# Knowledge Co-Creation Program (Group & Region Focus)

GENERAL INFORMATION ON  
**The total planning of airport construction,  
management and maintenance**  
課題別研修「空港の建設、運営・維持管理計画策定」

**JFY 2016**

**NO. J16-04355 / ID. 1684546**

**Course Period in Japan: From August 21<sup>st</sup>, 2016 to 1<sup>st</sup> October 2016**

This information pertains to one of the JICA Knowledge Co-Creation Program (Group & Region Focus) of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

'JICA Knowledge Co-Creation Program (KCCP)' as a New Start

In the Development Cooperation Charter which was released from the Japanese Cabinet on February 2015, it is clearly pointed out that *"In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together."* We believe that this 'Knowledge Co-Creation Program' will serve as a center of mutual learning process.

# **I. Concept**

## **Background**

“Outlook for Air Transport to the year 2025” published by International Civil Aviation Organization (ICAO) predicts the increase of aviation demands in the world. It is said that from year 2005 to 2025, aviation demands will increase 5.8 % in the Asia Pacific and Middle East, and 5.1% in Africa. Following this trend, airport development projects, new construction and expansion of existing airports, are scheduled in these regions. After the construction/expansion of the airport, efficient and effective management and maintenance are essential as well.

Taking this opportunity, Japan initiates to promote ‘The deployment of integrated infrastructure systems’ in our partners countries. It means that we will cooperate on overseas infrastructure projects from construction to management and maintenance.

In this regard, this program offers participants and his/her organization the basic knowledge on construction, management and maintenance of the airport development, and the opportunity to make efficient airport development plans with professional consultation.

## **For what?**

This program aims to contribute to central/local government and authorities who are engaging to develop or enhance the airport development plans considering construction with stable management and efficient maintenance.

## **For whom?**

This program is offered to the officers in charge of planning, management and maintenance of airport development in central or local government, airport authority or airport company.

## **How?**

Participants shall have opportunities to acquire practical knowledge on airport construction, management and maintenance through lectures and airport observations.

## ***II. Description***

### **1. Title (J-No.):**

The total planning of airport construction, management and maintenance (J1604355)

### **2. Period of program**

<b>Duration of whole program</b>	: July 2016 to January 2017
<b>Preliminary program</b> (in each participant's home country)	: July 2016
<b>Course Period in Japan</b>	: August 21, 2016 to October 1, 2016
<b>Finalization program</b> (in each participant's home country)	: October 2016 to January 2017

### **3. Target Regions or Countries:**

Afghanistan, Brazil, East Timor, Egypt, Ethiopia, Indonesia, Malawi, Maldives, Mongolia, Myanmar, Nepal, Papua New Guinea, Solomon Islands, Sri Lanka, Vietnam

### **4. Eligible / Target Organization**

Aviation bureau of central or local government, airport companies in charge of airport development

**5. Course Capacity (Upper limit of Participants) :** 16 participants.

**6. Language to be used in this project :** English

### **7. Course Objective:**

After this training, participants will propose airport development plan considering construction, management and maintenance, and the action plan proposed by participants will be recognized by the planning division of the organization participants belong to.

### **8. Overall Goal:**

The airport development plan will be prepared considering construction, management and maintenance in developing countries.

### **9. Expected Module Outputs and Contents:**

This program consists of the following three components.

1) Preliminary phase in a participant's home country:

All applicants are required to submit "Country Report" together with the application form. For the country reports, please refer to the section III- 4 and section VI "ANNEX" below.

2) Core phase in Japan:

The conceptual diagram and the tentative program are shown in figure 1 and figure 2.

3) Finalization phase in a participant's home country:

All participants (and their organization) are required to present the result of the program in participating organization and to submit "Progress Report" to JICA within 3 months after his/her return.

**Figure 1: Conceptual diagram of the total planning of airport construction, management and maintenance**

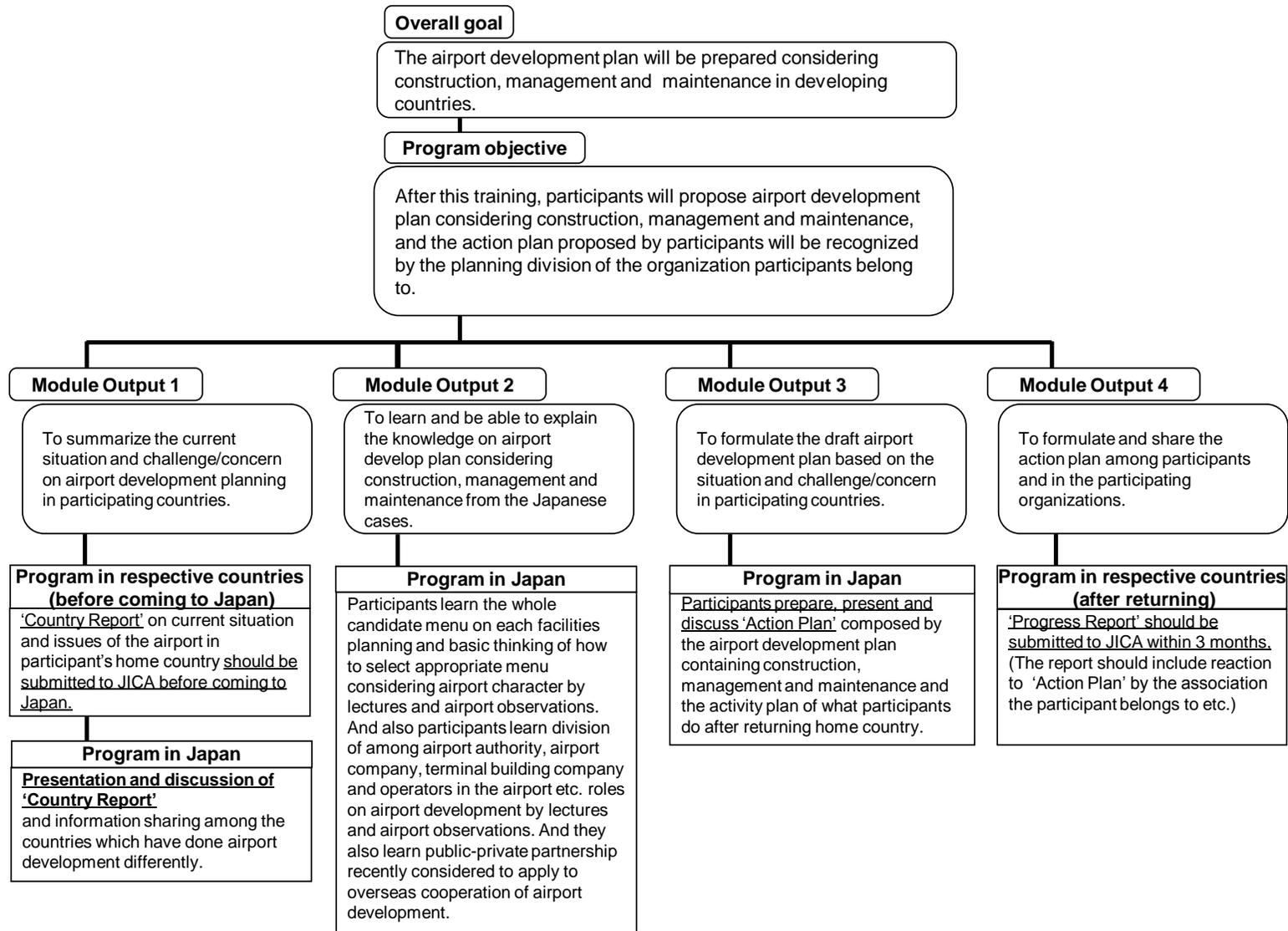


Figure 2: Tentative program for the total planning of airport construction, management and maintenance

Syllabus		Implementation		
		Lecture	Visit	Exercise
1	Course orientation	1		
2	Aviation administration in Japan	2.5		
3	International cooperation of airport development by ODA	2.5		
4	International rules of aviation	1.5		
5	Japanese rules and systems of aviation	2.5		
5	Country report			5
7	Design standards for airport civil engineering facilities	2.5		
8	Procedure, demand forecast, evaluation of airport development	2.5		
9	Basic planning for airport development	8.75		
10	Basic plan of airport terminal area development	2.5		
11	Airport Passenger Terminal Design	2.5		
12	Airport access rail in Japan	2.5		
13	Outline of eco-airport	1.25		
14	Basic design, management and maintenance of the facilities in the airport		25	
15	Discussion with engineers of airport in Japan			2.5
16	Measures against aircraft noise	2.5		
17	Safety management at the airport	2.5		
18	Airport operations in Japan	1.25		
19	Disaster prevention at the airport	2.5		
20	Fire fighting at the airport	1.25		
21	Fire drill at the airport	1.25		
22	Maintenance of basic facilities, buildings and machinery facilities	3.75		
23	Case study of airport operation		10	
24	Basic management of the airport	2.5		
25	Public-private partnership in airport project	2.5		
26	Airport construction	2.5		
27	Research and study on aviation field		5	
28	Action plan			20
*Subjects will be changed.		Total		
*No.28 includes 15 hours for preparing an action plan		hours	55	40
				27.5

### **III. Conditions and Procedures for Application**

#### **1. Expectations for the Participating Organizations:**

- (1) This program is designed primarily for organizations that intend to address specific issues or problems identified in their operations. Applying organizations are expected to use the Program for those specific purposes.
- (2) In this connection, applying organizations are expected to nominate the most qualified candidates to address the said issues or problems, carefully referring to the qualifications described in section III-3 below.
- (3) Applying organizations are also expected to be prepared to make use of knowledge acquired by the nominees for the said purpose.

#### **2. Responsibility of the Participating Organization:**

The participating organization is to be responsible to support the participant for developing the Country Report, sharing the knowledge within the organization and seeking the possibility of implementation of the Action Plan developed by the participant during the program in Japan, and submitting the Progress Report.

#### **3. Nominee Qualifications:**

Applying organizations are expected to select nominees who comply with the following qualifications.

##### **(1) Essential Qualifications**

- 1) Current Duties: to be in charge of planning, management and maintenance of airport development.
- 2) Experience in relevant fields: to be in the position with more than 5 years of occupational experiences in the division of airport planning, management and maintenance.
- 3) Educational Background: to be a graduate of university or equivalent.
- 4) Language: to have a competent command of speaking and writing English, roughly equal to 100 or more of TOEFL iBT score. (This training course includes active participation in discussions, and workshops for action plan drafting which requires high competence of English ability.) Please attach an official certificate or its photocopy for English ability, such as TOEFL, TOEIC if available.
- 5) Health: to be in good health, both physically and mentally, to undergo the program, and in Japan. Pregnant applicants are not recommended to apply due to the potential risk of health and life issues of mother and fetus.

#### **4. Required Documents for Application**

##### **(1) Application Form**

A copy of the Application Form is available at the respective country's JICA office or the Embassy of Japan. An application form should be typed in English.

##### **(2) Photocopy of passport:**

To be submitted with the application form, if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

※Photocopy should include the followings: Name, Date of birth, Nationality, Sex, Passport number and Expire date.

**(3) Nominee's English Score Sheet**

To be submitted with the application form. If you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS), please attach it (or a copy) to the application form.

**(4) Country Report**

Nominees are required to submit the Country Report together with the Application Form. The report is used for screening applicants, as training materials, and as a basis for group discussions. The format of the country report is shown in section VI "ANNEX" below. **The Report should be typed in English, and should cover all items.**

**5. Procedure for Application and Selection:**

**(1) Submitting the Application Documents:**

Closing date for applications: **Please inquire to the JICA office (or the Embassy of Japan).**

(After receiving applications, the JICA office (or the Embassy of Japan) will send them to **the JICA Center in JAPAN** by: **June 15, 2016.**

**(2) Selection:**

After receiving the document(s) through due administrative procedures in the respective government, the respective country's JICA office (or Japanese Embassy) shall conduct screenings, and then forward the documents to the JICA Center in charge in Japan, which organizes this project. Selection will be made by the JICA Center in consultation with the organizations concerned in Japan based on submitted documents according to qualifications.

*The organization with intention to utilize the opportunity of this program will be highly valued in the selection.* Qualifications of applicants who belong to the military or other military-related organizations and/or who are enlisted in the military will be examined by the Government of Japan on a case-by-case basis, consistent with the Development Cooperation Charter of Japan, taking into consideration their duties, positions in the organization, and other relevant information in a comprehensive manner.

**(3) Notice of Acceptance**

Notification of results will be made by the respective country's JICA office (or Embassy of Japan) to the respective Government by **not later than July 5, 2016.**

**6. Presentation/Document(s) to be presented/submitted by accepted participants:**

**(1) Country Report Presentation**

In the beginning of the course in Japan, each participant is requested to present his/her Inception Report respectively.

The presentation session will be held in the following manner.

1) Presentation should be use of Microsoft "**Power Point**".

(Therefore, accepted participants are required to prepare their Country Report format both Word for application and Power Point for presentation)

2) Each participant will be given total 20 minutes (15 minutes for presentation and 5 minutes for questions and answers and discussion.)

3) To make the understandable report slides, please put photos into the Power Point slides as many as possible.

## **(2) Action Plan formulation and presentation in Japan**

During the course in Japan, each participant is required to formulate the Action Plan. You may have the explanation and consultation on how to formulate the Action Plan.

Also participant will have an opportunity of presenting his/her Action Plan in the end of course in Japan. After the presentation you may have a discussion with other overseas and Japanese participants.

## **(3) Action Plan Presentation in the participating country and submission of the Progress Report**

After returning to home countries, each participant is requested to present the Action Plan in the participating organization, to share the knowledge and experience as to what you have learned during your stay in Japan with your colleagues and bosses.

Also each participant is requested to submit a Progress Report, describing progress made in implementing their Action Plan, within three (3) months after the completion of the program. This report should be sent to JICA Yokohama **by January 15, 2017.**

## **7. Conditions for Attendance:**

Participants are required:

- (1)** to strictly adhere to the program schedule.
- (2)** not to change the program topics.
- (3)** not to extend the period of stay in Japan.
- (4)** not to be accompanied by family members during the program.
- (5)** to return to home countries at the end of the program in accordance with the travel schedule designated by JICA.
- (6)** to refrain from engaging in any political activities, or any form of employment for profit or gain.
- (7)** to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the training expenditure depending on the severity of said violation.
- (8)** to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.
- (9)** to participate the whole program including a preparatory phase prior to the program in Japan. Applying organizations, after receiving notice of acceptance for their nominees, are expected to carry out the actions described in section II -9 and section III-2, III-6.

## IV. Administrative Arrangements

### 1. Organizer:

(1) **Name:** JICA Yokohama International Center (JICA Yokohama)

(2) **Contact:**

Ms. Hisako SHIKI

Address: 2-3-1, Shinko, Naka-ku, Yokohama, 231-0001, Japan

Tel: 81-45-663-3251 Fax: 81-45-663-3265

e-mail : [yictt1@jica.go.jp](mailto:yictt1@jica.go.jp)

### 2. Implementing Partner:

(1) **Name:** - Airport Facilities Div. International affairs of Airport Planning and Construction, Aviation Network Dep., Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)  
-Service Center of Port Engineering (SCOPE)

(2) **Contact:**

- MLIT

Address: 2-1-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8918, Japan

Tel: 81-3-5253-8717

- SCOPE

Address: 3-3-1, Kasumigaseki, Chiyoda-ku, Tokyo 100-0013, Japan

Tel: 81-3-3503-2801

(3) **URL**

- MLIT

URL: <http://www.mlit.go.jp/en/koku/index.html>

- SCOPE

URL <http://www.scopenet.or.jp/main/e/index.html>

### 3. Travel to Japan:

(1) **Air Ticket:** The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) **Travel Insurance:** Coverage is from time of arrival to departure in Japan. Thus traveling time outside Japan shall not be covered.

### 4. Accommodation in Japan:

JICA will arrange the following accommodations for the participants in Japan:

Yokohama International Center (JICA Yokohama)

Address: 2-3-1, Shinko, Naka-ku, Yokohama, 231-0001, Japan

Tel: 81-45-663-3251 Fax: 81-45-663-3265

(where "81" is the country code for Japan, and "45" is the local area code)

If there is no vacancy at JICA Yokohama, JICA will arrange alternative accommodations for the participants.

### 5. Expenses:

The following expenses will be provided for the participants by JICA:

(1) Allowances for accommodation, living expenses, outfit, and shipping,

(2) Expenses for study tours (basically in the form of train tickets,

(3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included) and,

(4) Expenses for program implementation, including materials.

For more details, please see p. 10-17 of the brochure for participants titled “KENSU-IN GUIDE BOOK,” which will be given to the selected participants before (or at the time of) the pre-departure orientation.

#### **6. Pre-departure Orientation:**

A pre-departure orientation will be held at the respective country’s JICA office (or Japanese Embassy), to provide participants with details on travel to Japan, conditions of participation in the program, and others.

## ***V. Other Information***

1. Visa will be arranged and issued in participants’ respective countries. If participants have difficulty to apply in their countries, it will be applied and issued in Japan.
2. A participant who has successfully completed the program will be awarded a certificate by JICA.
3. Participants are recommended to bring computers for your convenience. During the program, participants are required to work on the computers, including drafting action plans and others. Most of accommodations have internet access.
4. Allowances will be deposited to your temporary bank account in Japan several days after your arrival in Japan. It is advisable to bring with you cash / travelers' checks for some amount of money for the first several days after your arrival. Please note that it is very important to have your bank notes/checks exchanged to Japanese Yen (JPY) at any international airport when you can. You may not have time for an exchange into JPY due to busy training schedule when you need some amount of JPY.
5. In order to facilitate cross-cultural understanding for training participants, JICA Yokohama provides the participants with the followings;
  - (1) Japanese language classes (introductory course) for all the courses,
  - (2) Lectures on Japanese economy, culture, government and others for all the courses,
  - (3) School visits for some selected courses, and
  - (4) Socializing activities such as playing sports with Japanese and cultural activities introducing our culture for those who are interested.
6. Business Cards, and some folk crafts/relevant information would be useful to introduce yourself and your country/culture to other training participants and to Japanese people at some occasions.



**1-2. Outline of Airport Administration**

(1) Basic Laws Related to Airport Management and Development

(Please specify if different laws are applied to different types of airports.)

(2) Types of administration for airports in the country

(e.g., government, private enterprise, military, etc.)

(3) Number and location of airports by administration

(Please attach a location map with compass signs and scale of airports in the country.)

(4) Role of the Central (or Local) Government for airport Administration and Operation.

(5) Types of standards used (e.g., ICAO, Your country original, Foreign standard)

If, foreign standard, which country standard is used?

Please attach an additional sheet(s) of paper if a given space is insufficient.

**1-3. General information on all Airport Activities in the Country**

Total annual numbers of landing and taking off in your country

Year	2011	2012	2013	2014	2015
Numbers					

Total annual numbers of domestic and international passengers in your country (Departures and arrivals)

	2011	2012	2013	2014	2015
Domestic					
International					

(Please indicates whether transit passengers are included or not.)

Total annual numbers of handling domestic and international air cargo in your country

	2011	2012	2013	2014	2015
Domestic					
International					

(Please indicates whether transit cargos are included or not.)

**1-4. Airport Development in the Country**

System of Airport Planning (procedure and role of organizations for airport planning), Representative Office of Airport Development and System of Fund-raising for Airport Development (including source of funds for airport development).

(If different systems for airport planning, development and fund-raising are applied for each airport, please describe each system.)

**1-5. Airport Development Policy/Plan**

(1) Airport Development Policy/Plan

(2) Airport Development Projects/Plans (name of project plan, established year, target year, name of organization responsible for planning, name of consultants and fund raising.)

(3) Please describe the annual revenue and expenditure of the total aviation budget in your country. (please specify the detail items by table or graphs)

(4) Please describe income and expenditure balance. How to maintain the income and expenditure balance?

**1-6. Location Map of Airports in the Country**

Please attach a detailed location map of the airports in the country (including compass signs, scale of airport, legend etc.)

**1-7. Organization Chart of Aviation Management Body and Other Aviation Related Offices**

Please describe relevant organizations and attach organization charts.

**1-8. Airport Development Policy and Strategy**

Please describe airport development policies or strategies.

**2. General Information on Selected Airport**

Select one airport and fill in the following items. If any participants has participated from your organization in previous program, it is highly appreciated that if you could select the airport which has not been presented yet by the ex-participants.

The latest statistic data will be appreciated. Also you can attach an additional sheet(s) of paper if the given space is insufficient.

**Name of Selected Airport:**

**Name of the City where the Airport is located:**

**2-1. Administrative Organization chart of Selected Airport**

(Please attach the organization chart of the government association and airport businesses.)

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**2-2. Annual numbers of landing and taking off of Selected Airport**

Year	2011	2012	2013	2014	2015
Numbers					

**2-3. Annual numbers of domestic and international passengers of Selected Airport**

(Departures and arrivals)

	2011	2012	2013	2014	2015
Domestic					
International					

(Please indicates whether transit passengers are included or not.)

**2-4. Annual numbers of handling domestic and international air cargo of Selected Airport**

	2011	2012	2013	2014	2015
Domestic					
International					

(Please indicates whether transit cargos are included or not.)

**2-5. Operation hour of Selected Airport**

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**2-6. Conditions of airline service by routes and the number of aircraft of Selected Airport**  
 (The material which shows airline's name, departure place, arrival place, aircraft type and number of services per week should be submitted.)

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**2-7. Drawings and/or maps of whole view of Selected Airport**

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**2-8. Outline of Major facilities of Selected Airport**

**2-8-1. Runway (R/W)**

No. of R/W	Length (m)	Width (m)	Pavement type (asphalt, concrete, gravel etc)	ILS (installed or no)
#1				
#2				
#3				
#4				

**2-8-2. Taxiway (T/W)**

Total length	m
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**2-8-3. Apron (A/P)**

Area m <sup>2</sup>	Spots berth	Acceptable type of aircraft

**2-8-4. Passenger Terminal Buildings**

Building story floors	Gross floor area m <sup>2</sup>	Operation started year

**2-8-5. Air Cargo Terminal Buildings**

Building story floors	Gross floor area m <sup>2</sup>	Operation started year

**2-8-6. Passenger Parking**

Building story floors	Gross floor area m <sup>2</sup>	Operation Started year

**2-8-7. Other Facilities**

Please describe the outline of the scale and functions of facilities like BHS, EDS, FIDS, CUTE, energy supply system, aircraft refueling facility, waste treatment facility, wastewater treatment facility, control tower, parking area hanger, etc.

**2-9. Outline of the management and maintenance plan of the facilities shown in the 2-7. above**

\*You can describe by whole sentences instead, if you want.

\*Please show facility's name when you fill in 'Others'.

Facilities	Provider	Contents	Schedule
Basic facilities			
Passenger terminal building			
BHS, EDS, FIDS, CUTE			
Energy supply system			
Air cargo facilities			
Aircraft refueling facilities			
Waste treatment facilities			
Wastewater treatment facilities			
Others			

**2-10. Income and Expenditure plan of Selected Airport****2-10-1. Income**

\*If there exists the tariff, please attach it.

		Contents	Amount
Airport Operation	Landing & Parking charges		
	Passenger service facilities and security charge		
	Facility utility charges (BHS, PBB, REFUEL etc.)		

Retail Business & Facility Leasing	Merchandising & food/beverage revenue		
	Tenant fee revenue		
	Rent income of real estate		
	Other revenues		
<b>2-10-2. Expenditure</b>		Contents	Amount
Maintenance fee			
Major renovation & New development			
Utility fee			
Personnel expense			
Others			
<b>2-10-3. If case of income and expenditure balance is deficit, what do you correspond?</b>			
<b>2-11. Environmental measures taken in Selected Airport</b>			
Please show the outline of environmental measures taken at the airports			

**2-12. Outline and conditions of ongoing airport development projects and future plan in Selected Airport**

Please describe the facility name and scale, contractor, budget and schedule

**2-13. The entering situation of private companies on construction, management and maintenance of airport facilities**

(The names of target facilities and outline of private company's businesses)

**2-14. Please describe the challenges of your organization or airport and what you want to learn especially during the program in Japan**

## **Country Report Presentation**

In the beginning of the course in Japan, each participant is requested to present his/her Inception Report respectively.

The presentation session will be held in the following manner.

- ① Presentation should be use of Microsoft “**Power Point**”.  
(Therefore, accepted participants are required to prepare their Inception Report format both Word for application and Power Point for presentation)
- ② Each participant will be given total 20 minutes (15 minutes for presentation and 5 minutes for questions and answers and discussion.)
- ③ To make the understandable report slides, please put photos into the Power Point slides as many as possible.

## *For Your Reference*

### **JICA and Capacity Development**

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that “capacity development” is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

### **Japanese Development Experience**

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the “*adopt and adapt*” concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this “*adoption and adaptation*” process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan’s developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of “tacit knowledge,” a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



***CORRESPONDENCE***

For enquiries and further information, please contact the JICA office or the Embassy of Japan. Further, address correspondence to:

**JICA Yokohama International Center (JICA YOKOHAMA)**

**Address: 2-3-1 Shinkou, Naka-ku, Yokohama-shi, Kanagawa-ken 231-0001, Japan**

**TEL: 81-45-663-3251 FAX: 81-45-663-3265**