Scope of Work
for
Project for the Master Plan Study
on Multiple-Airport Development
for Greater Jakarta Metropolitan Area
in
The Republic of Indonesia

Agreed upon between

Directorate General of Civil Aviation (DGCA),
Ministry of Transportation (MOT)
and
Japan International Cooperation Agency (JICA)

Jakarta, March 22, 2010

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Director General of Civil Aviation
Ministry of Transportation
I. INTRODUCTION

In response to the official request from the Government of the Republic of Indonesia (hereinafter referred to as “the GOI”), letter of Director General of the Debt Management, Ministry of Finance dated November 7, 2008 titled “Japanese Technical Cooperation 2009 and Grant Aid 2010”, the Government of Japan (hereinafter referred to as “the GOJ”) has decided to conduct the “Project for Master Plan Study on Multiple-Airport Development for Greater Jakarta Metropolitan Area in the Republic of Indonesia” (hereinafter referred to as “the Study”) in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as “JICA”), the official agency responsible for the implementation of the technical cooperation programs of the GOJ, will undertake the Study in close cooperation with the authorities concerned of the GOI.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are;

1. to formulate the master plan for airport development for Greater Jakarta Metropolitan Area;
2. to prepare development plans for possible new airport and existing Jakarta Soekarno-Hatta Airport, and;
3. to conduct technical transfer to the counterpart personnel in the course of the implementation of the Study.

III. STUDY AREA

The Study will cover the Greater Jakarta Metropolitan Area, which is composed of JABODETABEK and surrounding areas.

IV. SCOPE OF THE STUDY

The Study will be conducted in the following phases:

Phase Ia: Analysis of Issues on Airport Development for Greater Jakarta Metropolitan Area

Phase Ib: Formulation of the Airport System Plan for Greater Jakarta Metropolitan Area

Phase II: Preparation of Development Plans for Possible New Airport and Exiting Jakarta Soekarno-Hatta Airport

Phase II of the Study will be conducted on condition that the Ministry of Transport (MOT) of the GOI agrees on the airport system plan for Greater Jakarta Metropolitan Area as recommended in the Study. On completion of the Phase I of the Study, minutes of agreement will be prepared and signed by the both sides stating that the MOT will coordinate with related government agencies to incorporate the recommended airport system plan into the national development plans. In the case where no agreement is made, the both sides will discuss and agree on changes in the direction of the study including termination of the Study with Phase I.
Each phase of the Study will cover the following works:

### Phase Ia: Analysis of Issues on Airport Development for Greater Jakarta Metropolitan Area

1. Understanding of Current Situation
   1.1 Socio-economic conditions
   1.2 Air traffic growth trend
   1.3 Related organizations – government, airlines, airport operators and others
   1.4 Government policy on airport development
   1.5 Jakarta Soekarno-Hatta International Airport
   1.6 Airspace Use
   1.7 Access to Jakarta SH Airport
   1.8 Past studies on airport development for Greater Jakarta Metropolitan Area
   1.9 Road and rail development plans for Greater Jakarta Metropolitan Area
   1.10 Land use and spatial plans for Greater Jakarta Metropolitan Area
   1.11 Environmental laws and regulations

2. Air Traffic Demand Forecasts and Facility Requirements
   2.1 Projection of future socio-economic framework
   2.2 Passenger, cargo and aircraft movement forecasts
   2.3 Airport access traffic forecast
   2.4 Peak hour forecasts
   2.5 Requirements for major airport facilities and systems

3. Demand Capacity Analysis for Existing Jakarta SH Airport
   3.1 Runway and taxiway system capacity
   3.2 Aircraft stand capacity
   3.3 Passenger terminal capacity
   3.4 Cargo terminal capacity
   3.5 Airport access road capacity

4. Analysis on Environmental Constraints of Existing Jakarta SH Airport

5. Evaluation of Existing Master Plan for Jakarta SH Airport

6. Evaluation of Other Airports
   6.1 Halim Perdanakusuma Airport
   6.2 Pondok Cabe Airfield
   6.3 Curug Airport
   6.4 Bandung Airport
   6.5 Majalengka Airport
   6.6 Paniimbang Airport in Pandeglang

7. Summary of Issues on Airport Development for Greater Jakarta Metropolitan Area

### Phase Ib: Formulation of the Airport System Plan for Greater Jakarta Metropolitan Area

(target year 2030 with an intermediate target years)

8. Development Strategies for Greater Jakarta Metropolitan Area
   8.1 Possible demarcation of roles/functions among airports
   8.2 Alternative development strategies for the airport system

9. Study on Possible New Airport Sites
   9.1 Basic requirements for the new airport
   9.2 Desktop analysis on alternative new airport sites including obstacles
   9.3 Natural conditions (including soil condition and terrains)
   9.4 Airspace study
   9.5 Site surveys
   9.6 Airport access plans including transfer between the new airport and existing airports
   9.7 Cost analysis for alternative new airport sites

10. Study on Multiple-Airport System in Other Countries
11. Formulation of the Airport System Plan for Greater Jakarta Metropolitan Area
   11.1 Alternative airport system plans
       - Concept plans for new and existing airports
       - Concept access plans for new and existing airports
       - Rough cost estimates
   11.2 Economic analysis on alternative airport system plans
   11.3 Strategic Environmental Assessment (SEA) on alternative airport system plans
   11.4 Selection of an optimal airport system plan

12. Conclusions on the Airport System Plan for Greater Jakarta Metropolitan Area

Phase II: Preparation of Development Plans for the New Airport and Exiting Jakarta Soekarno-Hatta Airport

   13.1 Plan for phased development
   13.2 Facility development plan with cost estimates
       - Airport facilities
       - Airport access facilities
   13.3 Obstacle control plan
   13.4 Land acquisition plan
   13.5 Off-airport land use plan integrated with government land use plans
   13.6 Airspace plan
   13.7 Management plan of the new airport
   13.8 Implementation schedule for the first phase development
   13.9 Financial analysis and funding plan including Public Private Partnership (PPP) scheme
   13.10 Environmental and Social Considerations (ESC) with Initial Environmental Examination (IEE) level analysis

   14.1 Plan for phased development
   14.2 Facility development plan with cost estimates
       - Airport facilities
       - Airport access facilities
   14.3 Land acquisition plan
   14.4 Airspace plan
   14.5 Implementation schedule for the next major development
   14.6 Financial analysis and funding plan including Public Private Partnership (PPP) scheme
   14.7 Environmental and Social Considerations (ESC) with Initial Environmental Examination (IEE) level analysis

15. Action Plans of Related Organizations to implement the Airport Development Plans for the New Airport and Jakarta SH Airport

16. Conclusions and Recommendations
V. STUDY SCHEDULE

The Study will be carried out in accordance with a tentative schedule below. The schedule is tentative and subject to modification when both parties agree upon and any necessity that arises during the course of the Study.

<table>
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<tr>
<th>Tentative Study Schedule</th>
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<tr>
<td>Month</td>
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<tr>
<td>Work in Indonesia</td>
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<td>Work in Japan</td>
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<td>Report Presentation</td>
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<td>Seminar</td>
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VI. REPORTS

JICA will prepare and submit the following reports in English with digital data to the GOI side. In addition, JICA will also prepare and submit Indonesian version of the Final Report (Summary and Main Report) to facilitate the use of the Study results.

1. Inception Report: English
   Thirty (30) hard copies and one (1) set of CD at the commencement of the Study.

2. Progress Report: English
   Thirty (30) hard copies and one (1) set of CD at the end of Phase Ia.

3. Interim Report: English
   Thirty (30) hard copies and one (1) set of CD at the end of Phase Ib.

4. Draft Final Report: English (Summary and Main Report)
   Thirty (30) hard copies and one (1) set of CD at the end of field work in Indonesia.

   The GOI side will provide written comments in English on the Draft Final Report within one (1) month after receipt of the report.

5. Final Report: English and Indonesian (Summary and Main Report)
   Fifty (50) hard copies and ten (10) sets of CD within one (1) month after receiving written comments on the Draft Final Report from the GOI side.
VII. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. To facilitate smooth implementation of the Study, the GOI shall take the following necessary measures;
   1.1 To secure the safety of the Japanese study team (hereinafter referred to as "the Team"),
   1.2 To permit the members of the Team to enter, leave and sojourn in the Republic of Indonesia for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees,
   1.3 To exempt the members of the Team from taxes, duties, fees and any charges on equipment, vehicles, and other materials brought into the Republic of Indonesia for the conduct of the Study,
   1.4 To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study,
   1.5 To secure permission for the Team to enter into private properties or restricted areas for the implementation of the Study,
   1.6 To secure permission for the Team to take all data and documents including photographs and maps related to the Study out of the Republic of Indonesia to Japan.

2. The GOI shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the member of the Team.

3. Directorate General of Civil Aviation, Ministry of Transportation shall act as a counterpart agency to the Team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. Directorate General of Civil Aviation, Ministry of Transportation shall, at its own expense, provide the Team with the followings, in cooperation with other organizations concerned:
   4.1 Available data and information related to the Study;
   4.2 Counterpart personnel and supporting staff;
   4.3 Suitable office space with necessary office equipment and facilities;
   4.4 Credentials or identification cards; and
   4.5 Security-related information on as well as measures to ensure the safety of the Team.

VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, the Team to the Republic of Indonesia; and
2. To pursue technology transfer to counterparts personnel in the course of the Study.

IX. CONSULTATION

JICA and Directorate General of Civil Aviation, Ministry of Transportation shall consult with each other in respect of any matter that may arise from or in connection with the Study.