# 付属 資料

- 1. TOR、S/W、M/M
- 2.主要面談者リスト
- 3 . Questionnare
- 4.協議議事録
- 5. ローカル・コンサルタント・リスト
- 6. 収集資料一覧



# TERMS OF REFERENCE

#### FOR

# FEASIBILITY STUDY AND STANDARDIZATION OF METRO MANILA URBAN EXPRESSWAY SYSTEM

#### 1. Background

Metro Manila with its concentration of people and economic activities has been growing rapidly. This rapid growth has caused various problems, especially traffic congestion at many points due to inadequate transport infrastructure. The deterioration of the traffic condition has greatly inconvenienced commuters and motorists daily, worsened the living environment, and adversely affected economic activities. The growth of Metro Manila is expected to continue furthermore, and the growing area will expand to the adjoining area widely. It is anticipated that these problems will become more serious if effective countermeasures are not taken.

In 1993, JICA completed "Metro Manila Urban Expressway System Study (MMUESS)" that outlined a master plan for the development of Metro Manila Urban Expressway System, and determined the feasibility of high priority expressway projects. JICA further carried out "Metro Manila Urban Transportation Integration Study (MMUTIS)" in 1999 to propose an integrated transportation master plan including expressway system and to select the high priority expressway projects.

In order to promote infrastructure development by private investment, an amended BOT Law was enacted by the Philippine government in 1993. As a result of this and other actions taken by the government to lure the foreign investor into the infrastructure development in the Philippines, several expressway projects as well as other infrastructure projects are in progress by the private sector under BOT scheme.

However, implementation of some BOT projects have been delayed and actual traffic volume has not reached the scheduled level due to rather high toll rates. Setting of appropriate level of tariff that average users can reasonably afford is a key factor for successful achievement of the infrastructure project.

Furthermore, interest of stakeholders (or parties concerned) of the BOT project should be appropriately balanced under a framework to be set out by the public sector to realize smooth project implementation. The typical concerns of project stakeholders are as follows:

1) Public sector: Reduction of financial burden and introduction of private sector's technical and operational strength into the project

- 2) Private sector (proponent): Reasonable business opportunities and profit
- 3) User: Satisfactory service with reasonable tariff

To cope with these problems, it has been more firmly recognized that appropriate allocation of responsibilities and associated risks between public and private sectors is most essential and more substantial government support will be an efficient and effective solution.

There are two typical implementation modes of BOT project under the present BOT Law, i) solicited mode in which a BOT proponent will be selected through competitive bidding arranged by the public sector, and ii) unsolicited mode in which BOT proposal will be submitted for the public sector's consideration at the discretion of the potential proponent.

The solicited mode has the following advantages for the smooth implementation of the project.

- 1) Commitment of public sector to the project is more positive from the initial stage of the project compared with unsolicited mode. The feasibility study of the project should be carried out by public sector prior to the bidding.
- 2) Management and control of independent projects composing the whole expressway network can be more firmly achieved by the public sector.
- 3) The private sector would owe less risk. For example, pre-investment for feasibility study is not required and risk in challenge bid stipulated in the BOT Law will be eliminated.

The public sector in the Philippines including the Department of Public Works and Highways (DPWH) and National Economic Development Authority (NEDA) has recognized these advantages as well as importance of appropriate risk sharing between private and public sectors in BOT projects. The DPWH is a government agency in charge of highways and coordinating body of expressway project under BOT scheme. The DPWH organizes an internal section named BOT-PMO (Project Management Office) for such particular purpose.

In order to provide high quality service to the road users, a traffic management standard should be established in advance for entire expressway network which will be developed by different concessionaires for each section. Such management system aims at standardization of efficient toll collection system, traffic management system, traffic information system and road maintenance requirement. The management standard will greatly contribute to the smooth traffic flow and prevention of traffic accidents.

## 2. Objectives of the Study

In order to realize development of a quality expressway system timely and economically, the study has the following specific objectives:

- 1) To analyze existing problems and their causes inherent in expressway development projects in Metro Manila
- 2) To evaluate level of maximum toll rate affordable to road users
- 3) To evaluate level of minimum toll rate expected by BOT proponent
- 4) To find out effective solutions to minimize toll rate gap in items 2) and 3) above
- 5) To set up a framework of optimum expressway network development including:
  - Appropriate sharing of responsibility and risk between private and public sectors
  - Government support (institutional and financial), and
  - Roles of ODA donor countries
- 6) To prepare model bidding documents and bid evaluation criteria for BOT expressway project
- 7) To formulate standard management system for entire expressway network including toll collection system, traffic management, information management and road maintenance. (The requirement to realize and maintain such system will be an obligation of the proponent to be observed during his concession period.)
- 8) To transfer technical knowledge to the Philippine counterparts and reinforce their capabilities in formation of BOT projects through the execution of this Study.

Feasibility Study on high priority expressway project (C-3/R-10) will be conducted to verify above items 2), 3), 4), 5), and 6) in detail. The study will also examine possible combination of the expressway components that will be developed under BOT scheme or initiatives of public sector assisted by ODA loan (called a "hybrid scheme").

## 3. Area to be covered by the Study

The Feasibility Study covers the C-3/R-10 continuous expressway route having total length of 10 km. (See attachment-1)

The Study of standardization of traffic management covers the whole urban expressway network in Metro Manila.

Section	Length					
R-10	R-10 From Manila South Harbor to existing R-10/C-3 roads junction (along with existing R-10 road)					
C-3	C-3 From existing R-10/C-3 roads junction to proposed R-9/R-3 expressway junction (along with existing R-3 road)					

This expressway is selected for the following reasons.

- At present Manila port and its surrounding area is heavily congested by traffic of cargo
  trucks and trailers, and damages to the existing street are caused by these vehicles. This
  expressway is primarily provided for truck and trailer uses so as to eliminate these
  troubles.
- 2) This expressway is listed in DPWH's "Medium Term Infrastructure Development Plan (1999-2004)" as a high priority project. It is also identified as a high priority project in MMUESS and MMUTIS study conducted by JICA, however, no feasibility study considering a public-private partnership has been carried out on it
- 3) This expressway will be linked to Skyway 3<sup>rd</sup> stage section which is scheduled to be opened in 2004 to connect North Luzon Expressway with South Luzon Expressway.
- 4) The toll concession has not been granted to any particular entity.

#### 4. Scope of the Study

In order to achieve the above-mentioned objectives, the Study shall cover the following subjects.

## 4.1 Study on Optimum Framework in Expressway Development

- Survey of existing problems inherent in expressway development projects under BOT scheme
- 2) Study on the most practicable toll structure considering impact on social benefit, national economy and financial viability of the project
- 3) Effective solutions to realize smooth expressway development
  - Appropriate sharing of responsibility and risk between private and public sectors
  - Government support (legal, institutional and financial), and
  - Roles of ODA donor countries

## 4.2 Feasibility Study on C-3/R-10 Expressway

- 1) Review of MMUESS, MMUTIS and collection of relevant information/data
  - Traffic volume data including future projection
  - Road condition
  - Environmental situation
  - Present land use and future land use plan
  - Urban development plan
  - Socio-economic data
  - Relevant expressway project data
  - Topographic survey data (including supplemental survey)
  - Geo-technical and soil investigation data (including supplemental survey)
  - Confirmation of BOT Law, relevant regulations and institutional framework
- 2) Project field survey
  - Field survey of road condition around the project site
  - Field survey of condition of building, land use, land owner and squatters
  - Identification of control points and public space
- 3) Traffic study
  - Supplemental traffic survey
  - Future traffic demand forecast
- 4) Engineering study
  - Establishment of design standard and criteria
  - Preliminary design
  - Preparation of right-of-way (ROW) map
  - Construction plan
  - Preliminary Cost Estimate
- 5) Environmental study
  - Natural and roadside environmental survey
  - Study on social impact
  - Countermeasure against noise and air pollution
- 6) Study of optimum project formulation
  - Demarcation of roles and responsibilities between public and private sectors
  - Selection of contractual arrangement (BOT, BTO, etc)
  - Decision criteria of toll rate and toll structure
  - Testing value for money (comparison of traditional approach and BOT approach)

- Risk sharing between public and private sectors and contractual framework model
- 7) Project description of BOT scheme
  - Project scope
  - Implementation model
  - Operation and maintenance plan
  - Land acquisition and relevant resettlement plan
  - Procurement plan
  - Environmental aspects
- 8) Cost estimate and financing plan for BOT scheme
  - Cost estimate
  - Financing plan
- 9) Project Evaluation for BOT scheme
  - Toll fees and revenue sharing between public and private sectors (if necessary)
  - Financial analysis
  - Sensitivity analysis
  - Economic analysis
  - Risk analysis
- 10) Evaluation of whole project including government support
- 11) Implementation schedule
- 12) Recommendations
- 4.3 Model Bidding Documents and Evaluation Criteria for BOT Procurement
- 1) Preparation of model bidding documents
- 2) Criteria for assessment of proponents and analysis of bids
- 3) Advice on mechanisms for contract management and operational monitoring
- 4) Points of contract negotiations
- 4.4 Establishment of Efficient Toll Collection System
- 1) Collection of relevant information/data
  - Relevant urban expressway project data
  - Present and intended system of toll collection in each expressway
- 2) Collection of relevant data from experiences in other countries

- Institution of expressway or toll road in other countries
- System of toll collection of toll road in other countries
- 3) Analysis of expected problems
  - Analysis of present problems in other countries
  - Analysis of expected problems in Metro Manila urban expressway
- 4) Establishment of efficient toll collection system
  - System and institutional study on efficient toll collection including collective toll collection system
  - Cost estimate of system introduction
  - Estimate of benefits
  - Evaluation of system introduction
  - Preparation of manual or guideline of toll collection
- 5) Study on automatic toll collection system including ETC (Electrical Toll Collection) system
  - Relevant data collection of ETC system
  - Preliminary design of ETC system
  - Cost estimate of system introduction
  - Estimate of benefits
  - Evaluation of system introduction
  - Formulation of manual or guideline of ETC system

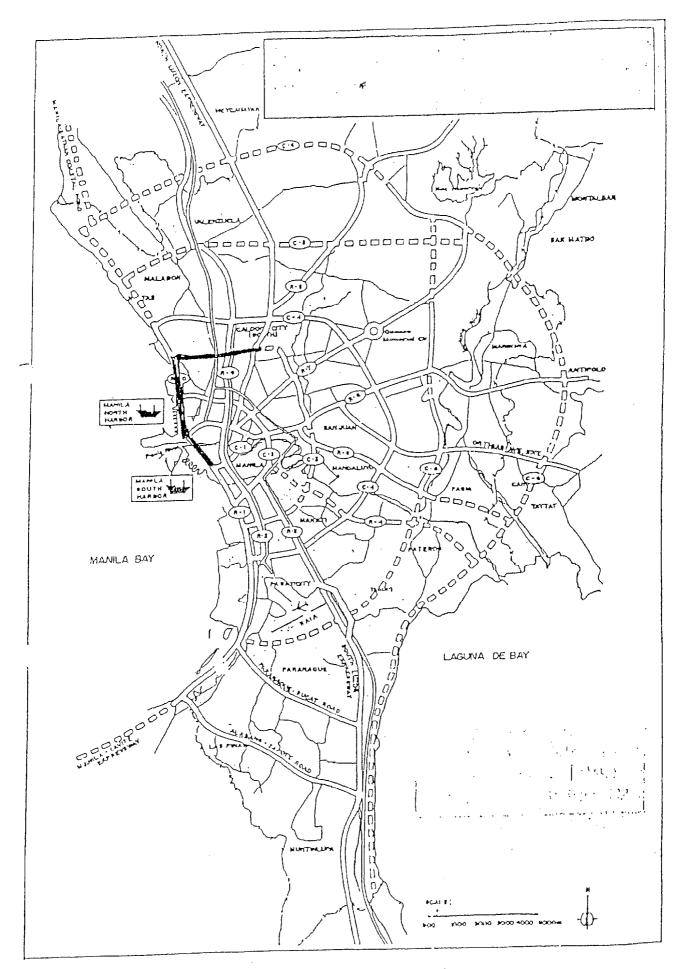
# 4.5 Standardization of Maintenance, Traffic Management and Traffic Information Management

- 1) Collection of relevant information/data
  - Present system, organization and standards
  - Relevant data from experience in other countries
- 2) Formulation of standards for maintenance and traffic management in expressway
  - Study on organization, facilities and equipment
  - Standard design of facilities
  - Formulation of standard or manuals
- 3) Study on traffic information management
  - Selection of necessary information (traffic congestion, traffic accident, breakdown vehicles, etc.)
  - Measures for information collection
  - Study on information management system, facility and equipment including the centralized traffic information management system

- Estimate of benefits
- Evaluation of system introduction
- Formulation of standard or manuals
- 4) Recommendations

## 5. Study Schedule

The Study shall be carried out over 15 months as shown in Attachment-2.



R-10/C-3 EXPRESSWAY

Study Item		Month													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Study on Optimum Framework in Expressway Development	100	10,010	7000000												
2. Feasibility Study on C-3/R-10 Expressway					ay e. Brig	A-3773		-737-50	i operati	. XY* 0	e eggereger				
3. Model Bidding Documents and Evaluation Criteria													- 55-17-58	25	
4. Establishment of Efficient Toll Collection System									2275			275045		8.	
5. Standardization of Expressway Management System					100 m	ing da egyfylyr	om på bar å	el desellos				7.5.7.5			
Work in Japan															<u> </u> 
port Submission				P	<b>▲</b> /R 1			17	<b>▲</b> T/R		P	<b>▲</b> /R 2		<b>▲</b> DF/R	<b>▲</b> F/R

## Remarks:

IC/R: Inception Report P/R: Progress Report IT/R: Interim Report DF/R: Draft Final Report
F/R: Final Report

## IMPLEMENTING ARRANGEMENT

ON

## THE TECHNICAL COOPERATION

FOR

THE DEVELOPMENT OF THE PUBLIC-PRIVATE PARTNERSHIP

TECHNIQUE

FOR THE METRO MANILA URBAN EXPRESSWAY NETWORK

IN THE REPUBLIC OF THE PHILIPPINES

AGREED UPON BETWEEN

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Manila, 12 SEPTEMBER, 2001

Mr. Teodoro T. ENCARNACION
Undersecretary,

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

Mr. Tadashi OKUTANI

Leader,

Preparatory Team,

JAPAN INTERNATIONAL COOPERATION AGENCY

## I. INTRODUCTION

In response to the request of the Government of the Republic of the Philippines (hereinafter referred to as "GOP"), the Government of Japan (hereinafter referred to as "GOJ") has decided to conduct " The Development of the Public-Private Partnership Technique for the Metro Manila Urban Expressway Network in the Republic of the Philippines" (hereinafter referred to as "the Study"), and exchanged Notes Verbales with GOP concerning the implementation of the Study.

Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of GOJ, will undertake the Study in accordance with the relevant laws and regulations enforced in Japan.

On the part of GOP, the Department of Public Works and Highways (hereinafter referred to as "DPWH"), shall act as the counterpart agency to the Japanese study team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

The present document constitutes the implementing arrangement between JICA and DPWH under the above mentioned Notes Verbales exchanged between the two governments.

## II. OBJECTIVE OF THE STUDY

*The objectives of the Study are to:* 

- 1. establish the strategic arrangement for an optimum public-private partnership (hereinafter referred to as "PPP") technique on Metro Manila urban expressway network;
- 2. formulate a standard management system for entire expressway network including toll collection system, traffic management, information management and road maintenance; and
- 3. conduct a case study on road construction, operation and management, using the PPP technique and the information technology at the selected route.

#### III. STUDY AREA

The study of PPP technique and standardization of management system shall cover the conceptual urban expressway network in Metro Manila.

The Case Study shall cover the R-10/C-3/R-9 continuous expressway route having total length of 12 km.





#### IV. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall cover the following items:

- 1. Review and analyses of current conditions of Metro Manila
- (1) Collection and review of existing information on socio-economic conditions, land use patterns and environmental features, road administration, traffic data, engineering data, etc.
- (2) Review of the existing plans and projects of the expressway development under BOT scheme
- (3) Identification of issues and problems
- 2. Study on the optimum framework of public-private partnership
- (1) Consideration of project financing
- (2) Consideration of appropriate sharing of responsibilities and risk allocation between private and public sectors
- (3) Establishment of the most practicable toll structure
- (4) Establishment of the fundamental framework to realize smooth expressway development, including government support(legal, institutional and financial)
- 3. Standardization of maintenance, traffic management and traffic information management considering intelligent transport system (ITS), etc.
- (1) Collection of relevant information / data
- (2) Formulation of standards for maintenance and traffic management in expressway
- (3) Study on traffic information management
- (4) Recommendations
- 4. Case study on R-10/C-3/R-9 expressway
- (1) Review and analysis of Metro Manila Urban Expressway System Study(MMUESS) and Metro Manila Urban Transportation Integration Study(MMUTIS)
- (2) Collection of relevant information / data and related study
- (3) Study of optimum project formulation
  - (i) Identification of Government support, e.g. components of the project for implementation under Government fund
  - (ii) Demarcation of roles and responsibility between public and private sectors
  - (iii) Selection of contractual arrangement (BOT, BTO, etc.)
  - (iv) Decision criteria of toll rate and toll structure
  - (v) Risk sharing between public and private sectors and contractual framework model



- (4) Application study of standardized management system
  - (i) Traffic information management system
  - (ii) Toll collection system including traffic demand management, etc.
  - (iii) Other kinds of ITS in harmonization with future total network
- (5) Environmental Impact Assessment
- (6) Action plan for implementation
- (7) Cost estimation
- (8) Financing plan
- (9) Project evaluation including evaluation of the resulting financial internal rate of return (FIRR) of the BOT component of the project
- 5. Development of model bidding documents and evaluation criteria for PPP approach
- (1) Preparation of model bidding documents, including pro forma contract
- (2) Criteria for assessment of qualification of prospective proponents and evaluation of bids
- (3) Proposed mechanisms for contract arrangement, and operational and maintenance management
- (4) Points of contract negotiations
- 6. Overall evaluation and recommendations

## V. STUDY SCHEDULE

The Study shall be implemented in accordance with the attached tentative project schedule shown in APPENDIX. The schedule, including report submission date stated in the next clause (VI), is tentative and subject to be modified when both parties agree upon and any necessity that arises during the course of the Study.

## VI. <u>REPORTS</u>

JICA shall prepare and submit the following reports in English to GOP.

- 1. Inception Report
  - Thirty (30) copies
  - Within one (1) month after the commencement of the Study.
- 2. Progress Report 1
  - Thirty (30) copies
  - Within three (3) months after the commencement of the Study.





- 3. Progress Report 2
   Thirty (30) copies
   Within eight (8) months after the commencement of the Study.
- 4. Interim Report
  Thirty (30) copies
  Within ten (10) months after the commencement of the Study
- 5. Draft Final Report
  Thirty (30) copies
  Within twelve (12) months after the commencement of the Study.
  GOP will provide JICA with its comments within one (1) month after the receipt of the Draft Final Report.
- 6. Final Report
  Sixty (60) copies
  Within one (1) month after the receipt of the comments on the Draft Final
  Report.

## VII. UNDERTAKING OF GOP

In accordance with the Notes Verbales exchanged between GOJ and GOP, GOP shall accord privileges, immunities and other assistance to the Japanese study team and, through the authorities concerned, take necessary measures to facilitate the smooth conduct of the Study.

- 1. GOP shall be responsible for dealing with claims which may be brought by third parties against the members of Japanese study team and shall hold them harmless in receipt of claims and liabilities arising in course of, or otherwise connected with the discharge of their duties in implementation of the Study, expect when such claims or liabilities arise from gross negligence or willful misconduct of the above mentioned members.
- 2. DPWH shall, at its own expense, provide the Japanese study team with the following, if necessary, in cooperation with other agencies concerned:
- (1) Available data and information related to the Study,
- (2) Counterpart personnel,
- (3) Suitable office space with necessary equipment in Metro Manila; and
- (4) Credentials or identification cards to the members of the Japanese study team.
- 3. DPWH shall make necessary arrangements with other governmental and non-governmental organizations concerned for the following:





- (1) to secure the security of the Japanese study team;
- (2) to permit the members of the Japanese study team to enter, leave and sojourn in the Philippines for the duration of their assignment therein;
- (3) to exempt the members of the Japanese study team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into the Philippines for the conduct of the Study;
- (4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Japanese study team for their services in connection with the implementation of the Study;
- (5) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into the Philippines from Japan in connection with the implementation of the Study;
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study;
- (7) to secure permission to take all data and documents(including photographs) related to the Study out of the Philippines to Japan by the Japanese study team; and
- (8) to provide medical services as needed and its expenses will be chargeable on member of the Japanese study team.

#### VIII. <u>UNDERTAKING OF GOJ</u>

In accordance with the Notes Verbales exchanged between GOJ and GOP, GOJ, through JICA, shall take the following measures for the implementation of the Study.

- to dispatch, at its own expense, study teams to the Philippines;
- 2. to pursue technology transfer to the Philippine counterpart personnel in the course of the Study;
- 3. to provide the necessary equipment and machinery for the implementation of the Study, which will remain the property of GOJ unless otherwise agreed.

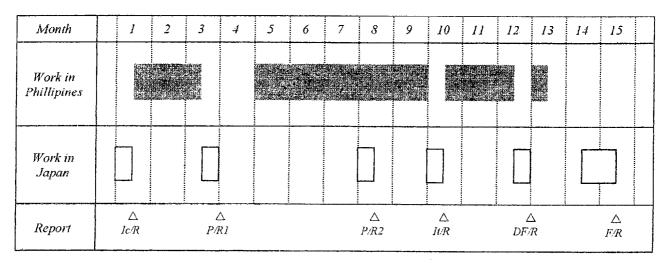
#### IX. CONSULTATION

JICA and DPWH shall consult with each other in respect of any matter that may arise from or in connection with the Study.



9

# Tentative Study Schedule



## [Legend]

Ic/R : Inception Report
P/R : Progress Report 1
P/R2 : Progress Report 2
It/R : Interim Report
DF/R : Draft Final Report
F/R : Final Report





MINUTES OF MEETING
FOR
IMPLEMENTING ARRANGEMENT
ON
THE TECHNICAL COOPERATION
FOR

THE DEVELOPMENT OF THE PUBLIC-PRIVATE PARTNERSHIP TECHNIQUE

FOR THE METRO MANILA URBAN EXPRESSWAY NETWORK
IN THE REPUBLIC OF THE PHILIPPINES

AGREED UPON BETWEEN
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Manila, 12 SEPTEMBER, 2001

Mr. Teodoro T. ENCARNACION
Undersecretary,

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

Mr. Tadashi OKUTANI Leader.

Preparatory Team,

JAPAN INTERNATIONAL COOPERATION AGENCY

## I. INTRODUCTION

In response to the request of the Government of the Republic of the Philippines (hereinafter referred to as "GOP"), the Government of Japan (hereinafter referred to as "GOJ") dispatched the Preparatory Study Team (hereinafter referred to as "the Pre-Study Team"), headed by Mr. Tadashi OKUTANI through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), to discuss technical cooperation on The "Development of the Public-Private Partnership Technique for the Metro Manila Urban Expressway Network in the Republic of the Philippines" (hereinafter referred to as "the Study") from 3 to 22 September 2001.

The Pre-Study Team conducted field surveys and had a series of discussions with authorities of the Department of Public Works and Highways (hereinafter referred to as "DPWH") and the other organizations concerned.

These Minutes of Meeting summarize the major points of the discussions. The list of attendants is shown in Attachment 1.

#### II. SUMMARY DISCUSSIONS

#### 1. Study Title

It was agreed that the study title be changed to "the Development of the Public-Private Partnership Technique for the Metro Manila Urban Expressway Network in the Republic of the Philippines" in accordance with the purpose and coverage of the Study.

#### 2. Objective of the Study

- (1) The Philippine side suggested and the Japanese side agreed to change the word "propose" to "establish the strategic arrangement for" to attract the private sector to implement the Toll Road projects of the government.
- (2) The Philippine side requested to add "operation and management" after road construction, since PPP technique does not mean road construction only. It was agreed to modify 3.

## 3. Study Area

- (1) It was confirmed that this study will be based on the proposed road network in the Metro Manila Urban Transportation Integration Study (MMUTIS), noting that it is a conceptual plan. Both sides agreed to use the words "the conceptual urban expressway network" to describe "the whole urban expressway network" so that the planned roads will also be included.
- (2) The Philippine side requested to add Route R-9 (See map attached) in the case study from the point of network formulation. The Japanese side accepted the request with the following conditions.





- (i) DPWH will receive a letter of agreement from PNCC-Citra Metro Manila Tollway Corporation stating their support to the PPP arrangement wherein the Metro Manila Skyway ends at R-9 expressway, and will submit it to JICA not later than November 1, 2001. Under this arrangement, R-9 together with R-10 and C-3 will be subjected to the PPP approach in the Study. The final concept in the implementation of the Project, however will be cleared with NEDA (National Economic and Development Authority), taking into consideration of the results of the Study.
- (ii) If condition (i) is not satisfied, Route R-9 will be automatically excluded from the case study.
- (3) The study of the route connecting the north harbor and the south harbor, which might be the extension road to the case study road (12km), will be limited to the following 3 items.
  - (i) Review and analysis of the related study
  - (ii) Collection of relevant information and data
  - (iii) Conceptual study: preparation of route alternatives and description of their features

## 4. Scope of the Study

- (1) The Philippine side requested and the Japanese side agreed to conduct the following in 1 of the Scope of the Study.
  - (i) Collection and review of contracts of recently opened two BOT projects (i.e. Metro Manila Skyway and the Manila Cavite Expressway) and ongoing BOT projects of tollroads in the country
  - (ii) Review of government's burden and risk allocation of the contracts written above
  - (iii) Assumptions in the bids and proposals and their comparison with the actual conditions
  - (iv) Review strength and weakness of solicited and unsolicited methods
- (2) Both sides clarified the contents of "financing" in 2.(1) and 4.(8) of the Scope of the Study to be a share of the Government's burden in the total cost, and not to include an identification of fund sources of the public and/or private sector(s) and the conditions of loan, bonds, etc.
- (3) The Philippine side requested to let its own counterpart personnel(s) participate in conducting the traffic forecast study, who have many experiences and posses proven qualifications in operating the JICA's STRADA model. The Philippine side also requested that JICA to provide one member of the JICA Study Team as a supervisor for the whole traffic simulation works of this Study. The Japanese side promised to convey this request to JICA Headquarters.
- (4) Both sides confirmed that the alignment study of the 2-lane section of C-3 will be



conducted in the case study. It will include the following components. (See map attached)

- (i) Review plans and documents related to the 2-lane section of C-3
- (ii) Conduct an alignment study, while DPWH should coordinate with the local government units concerned and the communities affected
- (iii) Assist DPWH in the finalization of the alignment of C-3 Road and prepare alternative solutions of the expressway project within the Right-of-Way.
- (5) The Philippine side pointed out that the identification of government support should be included in the case study. The Japanese side explained that it would be conducted, and agreed to state it on 4. (3) (i).
- (6) The Philippine side stressed the importance of the environmental impact assessment with emphasis on the reallocation of affected families in the case study. It was agreed to add 4.(5).

Concerning this, the Philippine side informed that DPWH has developed its own simulation model in forecasting the degree of air pollution and noise attributable to expressway construction and improvement works. The Japanese side basically agreed to the request of the utilization of this environmental simulation model for the Study. The Japanese side also requested a document that describes the contents of the environmental simulation model for further examination on the qualification of this model.

Both sides confirmed that if any vital vulnerability in this model is found, the JICA Study Team will use other computer simulation models or other calculation methods available.

- (7) Both sides confirmed that evaluation of the financial internal rate of return (FIRR) of the BOT component of the project is included in the case study. 4 (9) was modified.
- (8) The Japanese side proposed and both sides agreed to write down 4. (4) (i),(ii),(iii) and modify (6) to clarify the structure of the study.

## 5. Steering Committee and Counterpart Staff

It was agreed that the Steering Committee and the counterpart staff should be established prior to the commencement of the Study. The Steering Committee will oversee the implementation of the Study while the counterpart staff will directly work together with the Japanese study team. The Japanese study team will present all the study reports at the Steering Committee meetings. Members of the Steering Committee and the counterpart staff will be representatives of the cooperating agencies. It was confirmed that NEDA, TRB (Toll Regulatory Board), CCPSP (Coordinating Council for Private Sector Participation), DOTC (Department of Transportation and Communications), and MMDA (Metro Manila Development Authority) will be the members of the Steering Committee. The Philippine side will prepare and submit the

lists of the other Steering Committee members and the counterpart staff to the Japanese side as soon as possible.

It was agreed that the Japanese side will inform the Philippine side the required number and qualification of the counterpart staff as early as possible. Accordingly, the Philippine side will make necessary arrangements to assign counterpart staff.

## 6. Reports

Both sides agreed to finalize the form of the final report in the course of the study.

## 7. Office Spaces with Necessary Equipment

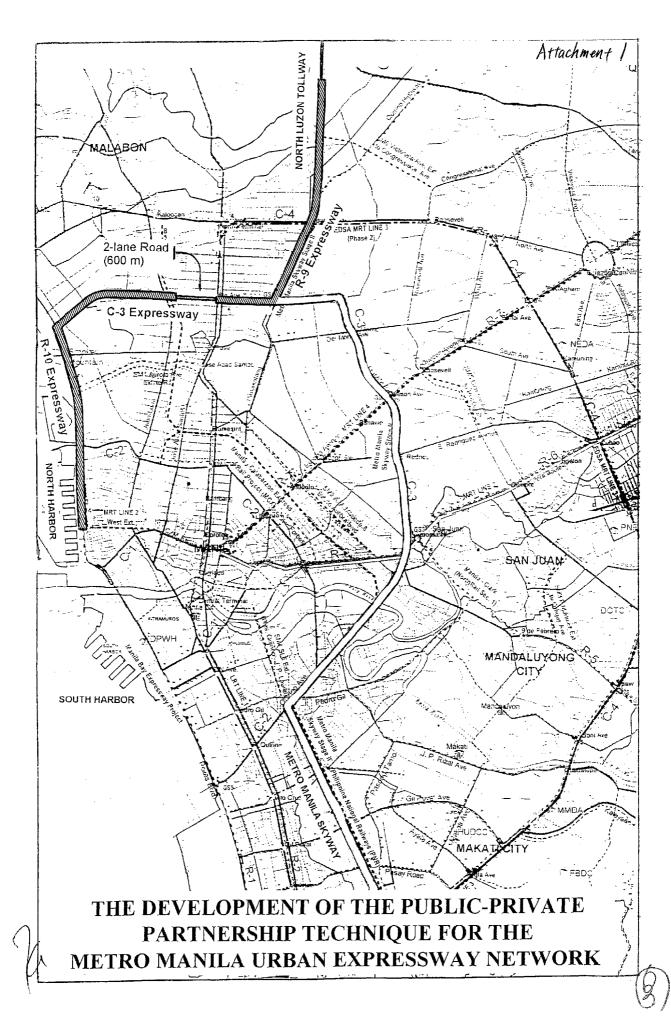
The Philippine side confirmed that an office space with necessary equipment suitable for about 15 persons would be provided by DPWH.

## 8. Counterpart Training in Japan

The Philippine side requested for the counterpart training in Japan in the course of the Study. The Philippine side suggested observation trip on expressway construction, operation and maintenance including ITS equipment. The Japanese side promised to convey this request to the JICA Headquarters.



(599)



## List of Attendants

## Philippine side

## DPWH (Department of Public Works and Highways)

Mr. Teodoro T. ENCARNACION Undersecretary

Mr. Godofredo Z. GALANO Director, BOT Office

Ms. Linda M. TEMPLO Director, Planning Service

Mr. Carol CANUEL Section Chief, Planning Service

Mr. Bel FAJARDO Chief Environmental Management Specialist,

**EIAPO** 

Mr. Florencio Rey M. ALANO Engineer IV, BOT Office

Mr. Joji NAKANO JICA Expert

## NEDA (National Economic and Development Authority)

Ms. Amy B. BENJAMIN Senior Economic Development Specialist,

Public Investment Staff

Ms. Joanne TOLENTINO Economic Development Specialist,

Public Investment Staff

## TRB (Toll Regulatory Board)

Mr. Jaime S. DUMLAO Jr. Executive Director
Mr. Julius Caesar E. CORPUZ Project Manager

Mr. Ramon DUMAUAL Chief of Division Technical 1

## CCPSP (Coordinating Council for Private Sector Participation)

Ms. LuLu S. BACLAGON Project Manager, Transportation and Government

IT Services Division

Mr. Eli E. RICOTE Planning Officer IV, Transportation Division

## **PPA (Philippine Port Authority)**

Mr. Romelo T. MASCARINA

Manager, Project Development Department

Mr. Roberto C. AQUINO

Division Manager, Project Study Division

Mr. Tomas B. CARLOS

Project Director, North and South Harbor

Mr. Joenel D. MANALON Principal Engineer
Mr. Rolando PEREZ Staff Engineer





## Japanese side

## JICA Preparatory Study Team

Mr. Tadashi OKUTANI Team Leader
Mr. Hitoshi HAMAJI Member
Mr. Tomohiro ONO Member
Mr. Akihisa KOJIMA Member
Mr. Toshihiro KIKUTA Member

## JICA Philippine Office

Mr. Hiroyuki ABE Assistant Resident Representative



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