# 付 属 資 料

1. Scope of Work

:(2

- 2. Minutes of Meeting
- 3. Terms of Reference
- 4. 対 処 方 針
- 5. Discussion Paper
- 6. Questionnaire
- 7. 面会者リスト
- 8. 収集資料リスト
- q 败 县 等

SCOPE OF WORK
FOR INTEGRATED TRANSPORTATION SYSTEM IMPROVEMENT

BY The state of th RAILWAY AND FEEDER SERVICES

gan kelakak ada sabak sakan jenggan ang ataun salah <mark>inu</mark> sadan <sup>kela</sup>n salah salah salah salah salah salah salah Beraman da panggan salah s JABOTABEK AREA

AGREED UPON BETWEEN DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS MINISTRY OF COMMUNICATION

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

JAKARTA, 2nd FEBRUARY 1988

Mr. GIRI S. HADIHARDJONO DIRECTOR GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS, MINISTRY OF COMMUNICATION

Mr. Makoto MOMOSE LEADER OF THE JAPANESE PRELIMINARY STUDY TEAM, JAPAN INTERNATIONAL COOPERATION AGENCY

In response to the request of the Government of the Republic of Indonesia, the Government of Japan has decided to conduct the study on Integrated Transportation System
Improvement by Railway and Feeder Service in JABOTABEK Area (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 Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Government of the Republic of Indonesia.

The present document sets forth the Scope of Work for the Study.

#### 1. Title of the Study

The Study shall be named "Integrated Transportation System Improvement by Railway and Feeder Service in JABOTABEK Area".

#### 2.Area of the Study

The Study will be conducted with regard to transportation system in JABOTABEK area.

#### 3. Objective of the Study

The objectives of the Study are:

- (1) to prepare Master Plan for the JABOTABEK mass transport system for the period up to the year 2005.
- (2) to identify the feasibility for the JABOTABEK mass transport system.
- (3) to prepare the feasibility study, if necessary, as urgent project.

In the formulation of the Master Plan, existing urban and road development plans shall be taken into account.

# 4. Scope of the Study

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

#### 4.1 Review and Field Survey

de (5)

- (1) review of available information relevant to the Study, especially the Master Plan of JABOTABEK Railway formulated by JICA in 1981.
- (2) investigation on existing traffic condition in JABOTABEK area.
- (3) investigation on existing railway condition in facilities, transport capacities, operation, etc..
- (4) investigation on the other development plans relevant to the Study in JABOTABEK.
- 4.2 Formulation of Master Plan
- (1) study related to the socio-economic aspects
- (2) forecast of the future traffic demand for the period up to the year 2005.
- (3) establishment of the most rational network system in mass transportation
- (4) preparation of preliminary cost estimates for implementation
- (5) preparation of priority projects and investment schedule for implementation
- (6) recommendation on management and operation system
- 4.3 Feasibility Study on Urgent Project
- (1) preparation of preliminary design
- (2) preparation of cost estimates
- (3) preparation of implementation schedule
- (4) economic analysis
- (5) financial analysis
- (6) socio-environmental analysis
- 5. Schedule of the Study

The Country of the Country of the

The whole work will be carried out in accordance with the attached tentative schedule.

#### 6. Reports

JICA shall prepare the following reports in English and submit them to the Government of the Republic of Indonesia.

6.1 Inception Report (30 copies)

This report is to describe the overall approach and implementation program of the Study and to be submitted at the beginning of the full-scale study.

6.2 Interim Report 1 (30 copies)

This report is to describe provisional outcomes of the

UL



field survey as well as basic concept of the Master Plan and to be submitted within 6 months after the beginning of the full-scale study.

# 6.3 Interim Report 2 (30 copies) The state of the state o

This report is to describe Master Plan (Draft), the priority of the projects and outline of the feasibility study, and to be submitted within 12 months after the beginning of the full-scale study.

#### 6.4 Draft Final Report (30 copies)

This Report is to describe Master Plan (Final) and the feasibility study of urgent projects, and to be submitted within 15 months after the beginning of the full-scale study.

The comments made by the authorities concerned of the Government of the republic of Indonesia shall be submitted to JICA within 4 weeks after the explanation of the Draft Final Report.

### 6.5 Final Report (50 copies) yet with we will be my the weather

This report is to describe all the essential recommendations, results, and findings of the Study and to be submitted within 2 months after having received the written comments on the Draft Final Report from the Government of the Republic of Indonesia.

- 7. Undertakings of the Government of the Republic of Indonesia
  7.1 To facilitate the smooth implementation of the Study, the
  Government of the Republic of Indonesia shall take the following
  necessary measures;
- (1) To secure the safety of the Japanese study team
- (2) To permit the members of the Japanese study team enter, leave and sojourn in the Republic of Indonesia for the duration of their assignment therein, and exempt them from alien registration requirements.
- (3) To exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into and out of the Republic of Indonesia for the implementation of the Study.
- (4) To exempt the members of the Japanese study team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with





implementation of the Study.

- (5) To provide necessary facilities to the Japanese study team for remittances as well as utilization of the funds introduced into the Republic of Indonesia from Japan in connection with the implementation of the Study.
- (6) To secure permission for entry into private properties or restricted areas for the implementation of the Study.
- (7) To secure permission for the Japanese study team to take all data and documents (including maps, photographs) related to the Study out of the Republic of Indonesia to Japan.
- (8) To provide medical services as needed and its expenses will be chargeable on the members of the Japanese study team.
- 7.2 The Government of the Republic of Indonesia shall bear claims, if any arises against the members of the Japanese study team resulting from, occuring 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 wilful misconduct on the part of the members of the Japanese study team.
- 7.3 Directorate General of Land Transport and Inland Waterway(DGLT) shall act as the counterpart agency to the Japanese study team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementatin of the Study.
- 7.4 DGLT, at its own expense, provide the Japanese study team with the followings, in cooperation with other related organisations, concerned:
- (1) available data and imformation related to the Study
- (2) counterpart personnel
- (3) suitable office spaces with necessary equipments
- (4) credentials or identification cards

#### 8. Undertakings of JICA

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

- 8.1 To despatch, at its own expense, study teams to the Republic of Indonesia
- 8.2 To perform technology transfer to the Indonesian counterpart personnel in the course of the Study.

di to

#### 9. Mutual Consultation

JICA and DGLT shall consult with each other in respect of any matter that is not agreed upon in this document and may arise from or in connection with the Study.

1947年 1957年 1958年 1958年

1997年,1998年中央36日本公司的1998年1993年,1998年

The second of the following the following state of the second of the sec

in the state of the control of the state of

Carlot Control Market Control of the Association Carlot

#### 10. Study Organization

# 10.1 Study Teams with the second of the second transfer second second second to the second se

For the implementation of the Study, JICA shall organize the Japanese Study Team which consists of Japanese experts, professionals and/or engineers, while the Indonesian side shall organize the Indonesian Study Team as the counterpart.

Both teams are expected to work in close collaboration.

10.2 For the provision of advisory function, JICA shall organize an Advisory Committee which consists of competent officials of the Government of Japan while, for supervisory, advisory and/or coordinative functions, Indonesian side shall organize a Steering Committee which consists of representatives from the organization concerned in the Government of the Republic of the Indonesia.

The state of the section is a

TENTATIVE SCHEDULE

Work in Indonesia	Month	<b>1-1</b>	2	ന	*	Ω.	9	£~	60	ഗ	10	11	12	13	14	12	9 10 11 12 13 14 15 16 17	17	18
Work in Japan  Report  Presentation IC/R IT/R(1) IT/R(2) DF/R F/I	۲ ۲ ()															,			
Work in Japan  Report  Presentation IC/R IT/R(1) IT/R(2) DF/R	111 Y TOX																		
an an	:		<u> </u>	:					, 4								24		
an	e e e																-		- E
an $\Delta$ $\Delta$ $\Delta$ $\Delta$ tation IC/R IT/R(1) IT/R(2) DF/R	du Xiow			-	†														<u> </u>
tation $IC/R$ $IT/R(1)$ $IT/R(2)$ $DF/R$	Japan		· · · ·	<u> </u>		*.				:				-	* . *				
tation IC/R IT/R(1) IT/R(2) DF/R		⊲		1		1	- ₫	1					7			7			◁
	Report Presentation	H HC	ह्य				IT/	R (1					II	ጽ (2		U	ĸ		× ×

IC/R : Inception Report
IT/R(1): Interim Report(1)
IT/R(2): Interim Report(2)
DF/R : Draft Final Report
F/R : Final Report

MINUTES OF MEETING

ÖΝ

INTEGRATED TRANSPORTATION SYSTEM IMPROVEMENT

BY

RAILWAY AND FEEDER SERVICES

IN

JABOTABEK AREA

AGREED UPON BETWEEN

DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

MINISTRY OF COMMUNICATION

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

JAKARTA, 2 nd FEBRUARY 1988

Mr. GIRI S. HADIHARDJONO

DIRECTOR GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

MINISTRY OF COMMUNICATION

Makoto Momose

Mr. Makoto MOMOSE

LEADER OF THE JAPANESE PRELIMINARY STUDY TEAM JAPAN INTERNATIONAL COOPERATION AGENCY The Japanese Preliminary Study Team (hereinafter referred to as "the Team") sent by the Japanese International Cooperation Agency, headed by Mr. M. Momose, visited the Republic of Indonesia from 25th January to 2nd February, 1988, for the purpose of discussion on Integrated Transportation System Improvement by Railway and Feeder Services in JABOTABEK Area (hereinafter referred to as "the Study").

The Team had a series of discussion with representatives from Directorate General of Land Transport and Inland Waterways, Ministry of Communication, and other agencies concerned, and carried out a field survey in the study area.

Control State (Section 1987) and the section of the

Control Services (Control Control Cont

Through these discussions, both sides have confirmed items of the discussions, as attached in Annex 1.

Attendant's Lists of both sides are attached in Annex 2.

Attack and the other and are for the production of

面南

(alan 1982 - Nashi Nashishariya)

1. The Scope of Work for the Study was discussed and agreed upon between both sides.

ang a kang labah melangga mendah belah bebahan merupakan bebagai bangan ber

- 2. In order to establish the most rational network system in mass transportation, the followings shall be studied as fundamental matters.
- (1) feasibility of the new railway network including appropriate new lines.
- (2) the efficient feeder services by bus network or other appropriate ways and vitalization of railway stations including their front plaza for the feeder services.
- (3) the reformation and arrangement of railway service in JABOTABEK area taking account of the relationship between commuter, middle/long distance passenger and freight trains.
- (4) The possibility of moving to new place of Jakarta Kota Station with the view of railway efficiency and feeder services.
- 3. With respect to 2.(1), the new lines shall be studied based on increasing the share of railway passengers. And also, in the view of economic and financial aspect, the structure of the new lines shall be studied including choice of rolling stocks.



- 4. With respect to 2.(3), separate operation of various trains and role of each railway terminals in JABOTABEK area shall be considered for smooth and efficient transport.
- 5. With respect to 2.(4), the development plan around Jakarta Kota Station area shall not be included. Therefore, if necessary, it shall be carried out as other study.
- 6. The full-scale study team shall prepare several alternatives with regard to new network system and, through the discussion with both sides, shall recommend the most rational network system in mass transportation system.
- 7. The Study shall be carried out based on the completion of the existing railway modernization on Master Program up to 1992 which is ongoing in JABOTABEK Area.
- 3. The Government of the Republic of Indonesia promised to organize a wide-range Steering Committee for the smooth implementation of the study. It shall comprise representatives from MOC, DGLT, BAPPENAS, PJKA, PMG, BPPT, Dept of PUBLIC WORKS, DKI, JABOTABEK COORDINATING BOARD, and PPD.
- 9. DGLT requested to the Team to dispatch some of Indonesian counterparts for training in Japan in the second year of the Study. The Team promised to convey this request to the Government of Japan.

儿 南

# LIST OF ATTENDED

### INDONESIAN SIDE

1.	Mr.	GIRI	5	HAD1	ONO CORAH
----	-----	------	---	------	-----------

- 2. Mr. MULYADI HADIKUSUMO
- 3. Miss. BETSY HALAH SURTI
- 4. Mr. RM. FAUZI DIRADJA
- 5. Mr. TIMUR SEBAYANG
- 6. Mr. BAHAL, M
- 7. Mr. A.R. GULTOM
- 8. Mr. L. DENNY SIAHAAN
- 9. Mr. SOBRI NAWAWI
- 10. Mr. MARSONO MULYODIHARDJO
- 11. Mr. SOEPARTO
- 12. Mr. S U H A D I
- 13. Mr. AGUS PÚRNOMO
- 14. Mr. TAUFIK ADIWIANTO
- 15, Mrs. INDRAYATI M SUBAGIO
- 16. Mr. MUKSIN
- 17. Takefuni TANI
- 18. Masaharu SHIODE

#### DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

y in the grown their code of the total partition in

DITTO

DITTO

DITTO

URBAN TRANSPORT DGLT

DITTO

RESEARCH & DEVELOPMENT AGENCY MINISTRY OF COMMUNICATIONS

PLANNING BEAUREU M D C

BUS URBAN COMPANY/PPD

PROJECT MANAGEMENT GROUP DITTO

BAPPEDA DKI

B P P TECHNOLOGY DITTO

DITTO

URBAN TRANSPORT - DEFT IF

PUBLIC WORKS

JICA EXPERT PHBD

DITTO

#### JAPANESE SIDE

1. Makoto MOMOSE

2. Masaaki KAI

3. Hiroshi KANAZAWA

4. Katsuhiko HARA

5. Toshiichi MINATANI

6. Junzi ICHIZUKA 7. Kemichi UCHINAMI JICA STUDY TEAM

DITTO

DITTO

DITTO CONTRACTOR

DITTO

JICA OFFICE JAKARTA EMBASSY OF JAPAN

TERMS OF REFERENCE

Harris Harris Control of the FOR

INTEGRATED TRANSPORTATION SYSTEM IMPROVEMENT

RAILWAY AND FEEDER SERVICE

IN

JABOTABEK AREA

May 1987

DIRECTORATE GENERAL OF LAND TRANSPORT AND INLAND WATERWAYS

MINISTRY OF COMMUNICATIONS

#### 1. Background

The heavy road traffic congestion in Jakarta City, not only in commuting rush hour time but also in daytime, are caused by drastic increase of population, city development and urban sprawling phenomenon.

Despite the annual increase ratio of road area forced to be deteriorated to some several percent, similarly seen in advanced countries, the number of motor vehicle registeration (1.3 million cars at present) shows the increasing ratio of 7-10% annually. It is obvious that the road traffic will face the vital question in immediate future.

In the light of such circumstances, the Government of Indonesia and DKI Jakarta have taken steps of making the following plan to ease the pressing traffic congestion in Jakarta City.

- Urban Plan : Renewing the previous 1965 plan to complete by 1985,

  new urban plan was announced in 1985 aiming to complete
  by 2005.
- Road Plan : At present, the road construction are advanced based on the newly developed urban plan.

However, in order to meet with the drastic increase of road traffic exceeded far beyond the estimation, and also the rapid growth of city development, there is no other alternative to take measure for new road plan.

To materilize this need, Person Trip Survey in JABOTA - BEK area was conducted in 1986, and based on the result of this Survey, New Road Plan is under the study at present.

Railway Plan : In 1981, Master Plan was compiled to cover the total picture of railnetwork which aims to expand transport capacities in modernizing the existing network.

Later in 1985, for the sake of smooth materialization of this Master Plan, the Master Program was then newly formed as to enable to cope with the fluctuating economical conditions for implementation.

This Master Program is compiled to be divided into two terms; i.e. the first term by 1992, the strengthening of transport capacity by modernizing and improving the functions and the second term, by 2002, to reform or to develope the railway system.

Urban, road and railway planning are still under basic stage which only require direct consultation with each individual related authorities for their implementation but no particular integrated planning had been coordinated up until today.

Considering the fact that the traffic demand will eventually increase so drastically in years ahead, future urban mass transport system in JABOTABEK area must be established not only in each respective field of urban planning, road and railway but also in an integrated and coordinative way among each other planning.

In addition, to realize such mass transport system, considerable time will be required for the coordination of the plans in each respective field of urban planning, road and railway, even when occasion demands. there may be arisen the case to modify respective plan.

Therefore, urgent necessities are to establish integrated mass transport system because each field is now carrying out their own plan individually.

On the other hand, a separate study is being carried out by Indonesian side on the area of Jakarta Kota which would presumably remained as one of the future terminal of such integrated Mass Transport System.

This plan is a large scale area development plan aiming to move and remodel the presently used JAKARTA KOTA comb-type layout station into through type layout station taking into account of the future railway transportation system and at the same time, to contribute for arrangements of station-front plaza, road and also to include area improvement. Consequently, this Mass Transport System is required to have full conformity with the above-mentioned Jakarta Kota Area Development Scheme which is now being studied by the Indonesian side.

Object a refer group of the form of the second

From the follows points of view, the system which consist of the combination between rail and feeder service would be the most appropriate choice as a means of mass transport for the future urban area.

- Primarily, the city roads are so planned mainly based on the convinience for the inhabitants and also for the sake of city area development,
  and therefore it is not always appropriate enough to be used for
  the mass transport purpose.
- On the other hand, bus transport system which largely depend on road conditions and the locations of bus stops for its transport capabilities; it has its advantage that comparitively less initial investment is required, moreover their route allocation or route alternatives can be flexibly accorded with actual traffic volume. Therefore, this bus system could also be developed more effectively as a supplemental feeder system for mass transport system.
- Differently from others, the Railway is an enterprise which has the responsibility to construct its own facilities, maintain and manage for revenue operation, therefore its feasibility must always be affirmed beforehand.

Despite those aspects, railway system will show as economical and effective system as a means of mass transport especially on urban area as seen from the fact that time saving is achieved by avoiding the congested road, besides energy saving and pollution-free.

In addition the density of rail network would be less compared with the road. Therefore, to compensate such a less density, the feeder service must be planned and put in the system together. Concludingly, the objective to establish the described Mass Transport

System can be summarized as below:

- To take steps and find an approach as to establish a most rational network system in Mass Transportation, keeping in mind the consideration on coordination between new urban and road plan as mentioned above, creating the Mass Transport System as a combination of railway and its feeder system.
- To identify the feasibility, after the study being made on demand forecast, construction/operation and management/organization plan for the total system and also for each of the rail system and the feeder service.
- To elaborate the result of such study (after being officially approved by the government of Indonesia ) into the necessary rearrangement between the road plans or to incorporate it into the urban development plan and also utilize it further for the necessary modification of the second term of JABOTABEK Railway Project.

In addition, as the definite plan, it should be studied the proper methodology how to apply this Mass Transport System in the framework of the development of the area of Jakarta Kota where removal of the existing Jakarta Kota railway station is now under study.

#### Plan of Study

In principle, the railway routes of Mass Transport System is planned based on the network as designed under the JABOTABEK Railway Project added by lines to be further studied or become necessary, i.e. new commuter lines connecting between suburban area where no rail network is provided into the ring line of Jakarta-Tanah Abang-Jatinegara or line penetrating into city center (subway system) to play a role of delivery function. It can be considered for example, the feeder service, which is the connection between rail and bus line or Automated Guideway Transit (new light rail system, mono rail, etc) line characterized as having a role of point to point connection and/or area-development line.

After the investigation studies made on items dealing with most-optimum selection of transport system, route selection, demand forecast, facilities/equipment plan, operating plan, cost effectiveness and financial analysis, a feasibility can be endorsed for the above described route or network.

Besides that, as for finding the fore mentioned adaptability to the area of Jakarta Kota, further study will be required on the conceptional planning of Jakarta Kota Area Development Plan which is now carried out by the Indonesian side.

In addition, it should be identified the feasibility after studying the contents of Jakarta Kota Area Development Plan, its scheduling, amount of investment and effects, taking into consideration the relationship between the future image of Kota area railway network including the feeder service and New Kota station plan and also the relationship between the New Kota station plan and its surrounding area development plan.

The schedule of study is shown as below:

	1	5	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Inception Report	0												· · .					
Site survey, Data collection Study															1			]
Discussion Adjustment																		
Interim Report														0	1 1 1			
Draft Final Report														1 d		Ó		
Final Report																		0

: Work in Indonesia

# イ ン ド ネ シ ア 国 ジャボタベック圏統合輸送システム 改良計画調査(コンタクト・ミッション) 対 処 方 針

項 目	対 処 方 針	備考
1. コンタクト・ミッ		
ションの目的及び		
今後の予定		
(1) 目 的	次のとおり整理し、説明する。	
	①先方政府の要請内容及び意向の確認	·
	②本格調査の実施方針及びS/W内容の協議	
	③先方受入れ体制の確認	
	・先方政府の実施すべき事項	
	・先方カウンターパート機関	
	・調整等を目的とする委員会(Steering Commit-	
	tee)の設置	
	・その他	
(2) 今後の予定	概略の予定について確認する。	
	• 63年 3 月 S/W協議	
	・63年6月 本格調査開始	
(3) その他	協議の進捗状況によっては、今回のミッションでのS/	
	W締結も考慮する。	
		·
2. 要請内容及び意向		
の確認		
(1) 全 般	当方の本件調査協力に関する考え方、JICA開発調	
	<b>査システムの概略を説明する。合意事項については先方</b>	
	とコンタクト・ミッションとがミニッツに署名し、確認	
	する。	
(2) 協力範囲	①ジャボタベック圏における統合輸送システム改良計画	
	マスタープランの策定	
	・ジャボタベック圏統合輸送体系における鉄道輸送の	
	役割及び位置づけ	

	項 目	対 処 方 針	備	考
		<ul><li>鉄道とそのフィーダーサービスを考慮した最も合理</li></ul>		
		的で現実的なネットワークシステムの確立		
		・鉄道経営、維持管理体制の改善に関する方策の提示		e t
		②緊急整備プロジェクト/プログラムのフィージビリテ		
		ィー調査		
		• 概略設計		
		・投資額、運営費の算定		
		・便益の算定		
		• 経営分析、財務分析、経済分析		
		<ul><li>プロジェクト/プログラムの実施スケジュール</li></ul>		
		・実施妥当性の総合評価		
3. 🖈	(格調査の実施方			
金	H及び S /W内容			
0_	協議			
(1)	本格調査の目的	①鉄道とそのフィーダーサービスを含めたジャボタベッ		
		ク圏統合輸送システムの改良方策の提示		
		②ジャボタベック圏における鉄道輸送サービスの位置づ		
		けとその質的改善方向の提示		.*
		③上記①における統合輸送システム全体としての妥当性		. :
	İ	の確認		
		④緊急プロジェクト/プログラムのフィージビリティー		No.
		の確認		
(2)	本格調査の対象	ジャボタベック圏(ジャカルタ首都圏)		
(5)	地域			•
(3)	目標年次	2005年(必要に応じ、1995年、2000年を中間目標		
(4)	ナル細木の中ウ	年次とする。)		
(4)	本格調査の内容	①対象地域における交通現況把握		
		・既存調査結果の有効活用(ARSDS等)		
		・鉄道施設現況、鉄道輸送状況、鉄道運営状況の把握 ・鉄道を含むジャカルタ都市交通の問題点の明確化		
		- 外担で百つシャルルグ即中久地の回題点の別唯化		

# ②輸送需要分析及び将来輸送量推計

- ・鉄道M/P(1981)での予測値を次の観点よりレビュー。
  - -M/P策定以降の都市発展による都市内交通流の変化
  - ー他の輸送モード(高速道路等)の整備進展による 都市内交通流の変化
  - -国際空港・国内空港の移転による都市内交通流の 変化
- ・ 将来輸送量の推計
- ③ジャボタベック圏統合輸送システム改良の方向 (M/P)

  - 各代替案の比較検討、費用概算、及び評価
- ・最適案に基づく優先プロジェクト、投資プログラム の提示並びに実施妥当性の確認
  - ・鉄道及び鉄道へのフィーダーサービス・システムを 含めて経営、維持管理改善への提言
- ④緊急プロジェクトの実施妥当性の確認(F/S)
  - 概略設計
  - 投資額、運営費の算定
  - ・ 便益の算定
  - プロジェクト実施スケジュール
  - 経営分析、財務分析、経済分析
  - ・実施妥当性の総合評価

#### 調査期間

(5)

# 18カ月程度

Γ		1 2	3 4	5	5 7	8 9	10	11	12	13	14	15	16	17	18
	インドネシアでの調査			\ \ \		l E	l 								
								,		1	<u> </u>				
	日本での調査			1 1				 	l	[ 	<u> </u>	j		<u> </u>	{
	報 告 書	∆ IC/R			IT/R(I	)	-4.	,	. 4	T/R(	] (H)	0	S F/R		F/R

項	B	対 処 方 針	備	考
(6) 報告書	· · · · · · · · · · · · · · · · · · ·	① Inception Report:本格調查開始時。現地説明。		
Will ta		② Interim Report (1): 本格調査開始後 6カ月。		•
		現地説明。M/Pの策定までを記述。		
		③ Interim Report (II): 本格調査開始後 12カ月。		*, *
		現地説明。緊急プロジェクトの実施妥当性分析		* .
		までを記述。		¥.,
		④ Draft Final Report:本格調査開始後 15カ月。		
		現地説明。②、③の統合・調整を図る。		•
		⑤Final Report: ④へのコメント受領後 1カ月。	.*	
		現地送付。	i i	
(7) その他		①既存調査結果を有効に活用する(例:本調査ではPT		
		は行わず、ARSDSでの調査結果を利用する)。		
		②鉄道施設については既存施設の改良による有効利用を		
		図ることに重点を置く。		
		③前回の鉄道M/P (1981) 以降における社会・経済要		
		因、都市施設・交通施設供給要因等の変化を考慮して、		
		鉄道輸送需要構造の分析に重点を置く。		
		④鉄道輸送サービスの改善については、鉄道運賃設定の		
		あり方、鉄道経営の改善の方策、バス輸送等フィーダ		
		ーサービスの改良策、新交通システムの導入可能性等	·	
		の分析を含め、総合的かつ具体的に検討する。		
		<b>⑤緊急プロジェクト/プログラムのフィージビリティー分</b>		
		析は行うものの、プロジェクト分析よりは統合輸送シ		
		ステム改良に関する実現性のある政策、戦略の提示に	nga Line n	
		重点をおく。		
		⑥技術移転に関し想定される相手側要望への対処につい		. : :
	٠	ては以下のとおり。コートは、ボール、ジャルル・ペース	ga in h	
		・調査に使用したパソコン等機材の供与については、		
		意向を日本政府に伝える。		
	J.	・交通需要予測手法等を含むコンピュータ・ソフトの		9. k. - 1
		移転については了承。	 I	

項 目	対 処 方 針	備 2	考
	<ul><li>⑦緊急プロジェクト/プログラムに関しては、現時点で</li></ul>		
	は次により対処する。		
	・コタ駅の移転はM/Pのなかで、その位置づけを検		
	計する。		
		•	
4. 先方受入れ体制の			
確認			
(1) 先方の実施すべ	インドネシア国における既存鉄道関係S/Wをもとに		
き事項	作成した本件 Discussion Paper の Undertakingsをもと		
	に協議する。		
(2) 先方カウンター	①鉄道行政機構のなかでのカウンターパート機関の確認。		
パート機関	②関連機関の役割と機能(責任と権限)の確認。		
	③調整等を目的とする委員会の設置とその役割の確認。		
5. コンタクト・ミッ	·		
ションの各メンバ			
ーの担当事項	- 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.		
(1) 総括	・コンタクト・ミッションの業務全般の統括		
	・本格調査実施における調査内容、調査実施体制、調査 スケジュール等の基本方針のとりまとめ		
	・調査団を代表して相手国関係機関代表者との間で討議		
(a,b) = (a,b) = (a,b)	議事録等の確認文書への署名		
(2) 公共交通計画	・鉄道及び鉄道のフィーダーサービスを含む公共交通輸		
(6) 五八人地时间	送並びに鉄道を除く交通施設の現況及び問題点の把		*
	握		
(3) 鉄道施設計画	・軌道、駅、ヤード、信号、通信施設、車両、工場等を		
	含む鉄道施設・設備全般の現況及び問題点の把握		
(4) 需要予測	・ジャボタベック圏の都市交通需要に影響を与える都市		,
	計画、交通計画の現況と今後の動向の把握		
(5) 交通計画	・本格調査の実施に向けて、調査内容、調査実施体制、		
(国内作業)	調査スケジュール等の検討		

項目	対 処 方 針	備考
(6) 計画調整	・ミッションの業務遂行を円滑に進めるうえでの相手国 関係機関、在外公官等の調整	
6. コンタクト・ミッ	合意事項及び双方の主張等につき議事録等の確認文書	
ションの議事録	を作成し、双方の代表者が署名する。	
7. コンタクト・ミッ	報告書の目次案に従って各担当者により作成する。	e ega
ションの報告書		

#### DEVELOPMENT SURVEY PROJECT

# JAPANESE TECHNICAL COOPERATION PROGRAM

DISCUSSION PAPER

ON

INTEGRATED TRANSPORTATION SYSTEM IMPROVEMENT

BY.

RAILWAY AND FEEDER SERVICE

TN

JABOTABEK AREA

This paper is prepared for the discussion on the above study between the JICA Contact Mission and the representatives of the Government of The Republic of Indonesia

January 1988

JAPAN INTERNATIONAL COOPERATION AGENCY
( JICA )

# I. Purposes of the Contact Mission

- 1. To discuss and confirm with the representatives of the Government of the Republic of Indonesia on the request and its background in detail of the technical cooperation for the Integrated Transportation System Improvement by Railway and Feeder Service in JABOTABEK Area (the Study).
- 2. To discuss the Scope of Work on the Study.
- 3. To discuss and confirm the arrangement for implementing the Study.

and the British Colored State (Alberta Colored

The agreed subjects and items shall be recorded in the Minutes of Meeting which will be signed by the leader of the Contact Mission and the representative of the Government of The Republic of Indonesia.

### II. Tentative Scope of Work

The contact Mission could suggest the following Scope of Work of the Study for the discussion with the representatives of the Government of the Republic Indonesia.

The Scope of Work suggested here is of tentative nature since it is prepared with the limited information obtained through the Term of Reference for the Study and based upon the preliminary analysis on the Japanese side.

The Scope of Work is, therefore, expected to be finalized and confirmed between both sides through discussion either with this Contact Mission or with the Preliminary Study Mission prior to the actual commencement of the full-scall Study.

#### 1. Title of the Study

The Study shall be named "Integrated Transportation System Improvement by Railway and Feeder Service in JABOTABEK Area".

2.Area of The Study

The Study will be conducted with regard to transportation system in JABOTABEK area.

# 3. Objective of the Study

The objectives of the Study are:

- (1) to prepare Master Plan for the JABOTABEK mass transport system for the period up to the year 2005.
- (2) to identify the feasibility for the JABOTABEK msss transport system.
- (3) to prepare the feasibility study, if necessary as urgent project.

In the formulation of the Master Plan, existing urban and road plans shall be taken into account.

#### 4. Scope of the Study

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

4.1 Review and Field Survey

political interest and the contract of the con

- (1) review of available information relevant to the Study, especially the Master Plan of JABOTABEK Railway formulated by JICA in 1981.
- (2) investigation on existing traffic condition in JABOTABEK area.
- (3) investigation on existing railway condition in facilities. transport capacities, operation, etc..
- (4) investigation on the other development plan relevant to The Study in JABOTABEK.
- 4.2 Formulation of Master Plan
- (1) study related to the socio-economic aspects
  - (2) forecast of the future traffic demand for the period up to the year 2005.
  - (3) establishment of a most rational network system in mass transportation
    - (4) preparation of preliminary cost estimates for implementation
  - (5) preparation of priority projects and investment schedule for implementation
  - (6) recommendation on management, operation and maintenance system
  - 4.3 Feasibility Study on Urgent Project
  - (1) preparation of preliminary design
    - (2) preparation of cost estimates
  - (3) preparation of implementation schedule
- (4) economic analysis

Control Control Control

(5) financial analysis

# 5. Schedule of The Study of the light formula and an electric study of the study of

The whole work will be carried out in accordance with the attached tentative schedule.

#### 6. Reports

JICA shall prepare the following reports in English and submit them to the Government of the Republic of Indonesia.
6.1 Inception Report (30 copies)

This report is to describe the overall approach and implementation program of the Study and to be submitted at the beginning of the full-scale Study.

# 6.2 Interim Report 1 (30 copies) The second state of the second st

This report is to describe provisional outcomes of the field survey as well as basic concept of the Master Plan and to be submitted within 6 months after the beginning of the full-scale Study.

# 6.3 Interim Report 2 (30 copies)

This report is to describe Master Plan (Draft), the priority of the projects and outline of the feasibility study, and to be submitted within 12 months after the beginning of the full-scale Study.

#### 6.4 Draft Final Report (30 copies)

This Report is to describe Master Plan (Final) and the feasibility study of urgent projects, and to be submitted within 15 months after the beginning of the full-scale Study.

The comments made by the concerned authorities of the Government of the Republic of Indonesia shall be submitted to JICA within 3 weeks after the explanation of the Draft Final Report.

### 6.5 Final Report (50 copies)

This Report is to describe all the essential recommendation, results, and findings of the Study and to be submitted within 2 months after having received the written comments on the Draft Final Report from the Government of the Republic of Indonesia.

- 7. Undertakings of the Government of the Republic of Indonesia
  7.1 To facilitate the smooth implementation of the Study, the
  Government of the Republic of Indonesia shall take the following
  necessary measures:
- (1) To secure the safety of the Japanese study team

- (2) To permit the members of the Japanese study team enter, leave and sojourn in the Republic of Indonesia for the duration of their assignment therein, and exempt them from alien registration requirements.
  - (3) To exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into and out of the Republic of Indonesia for the implementation of the Study.
- (4) To exempt the members of the Japanese study team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with implementation of the Study.
- (5) To provide necessary facilities to the Japanese study team for remittances as well as utilization of the funds introduced into the Republic of Indonesia from Japan in connection with the implementation of the Study.
  - (6) To secure permission for entry into private properties or restricted areas for the implementation of the Study.
  - (7) To secure permission for the Japanese study team to take all data and documents (including maps, photographs) related to the Study out of the Republic of Indonesia to Japan.
  - (8) To provide medical services as needed and its expenses will be chargeable on the members of the Japanese study team.
- 7.2 The Government of the Republic of Indonesia shall bear claims, if any arises against the members of the Japanese study team resulting from, occuring 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 gress negligence or wilful misconduct on the part of the members of the Japanese study team.
- 7.3 Directorate General of Land Transport and Inland Waterway(DGLTIW) shall act as the counterpart agency to the Japanese study team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementatin of the Study.
  - 7.4 DGLTIW, at its own expense, provide the Japanese study team with the followings, in cooperation with other related organisations, concerned:
  - (1) available data and information related to the Study

- (2) counterpart personnel
- (3) suitable office spaces with necessary equipments
- (4) credentials or identification cards
- (5) appropriate number of vehicles with drivers

# 8. Undertakings of JICA - The Property of the American American Property

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

8.1 To despatch, at its own expense, study teams to the Republic of Indonesia

The market were grown the arrow the con-

8.2 To perform technology transfer to the Indonesian counterpart personnel in the course of the Study.

#### 9. Mutual Consultation

JICA and DGLTIW shall consult with each other in respect of any matter that is not agreed upon in this document and may arise from or in connection with the Study.

# III. Study Organization

### 1. Study Teams

For the implementation of the Study, JICA shall organize the Japanese Study Team which consists of Japanese experts, professionals and/or engineers, while the Indonesian side shall organize the Indonesian Study Team as the counterpart.

Both teams are expected to work in close collaboration.

2. For the provision of advisory function, JICA shall organize an Advisory Committee which consists of competent officials of the Government of Japan while, for supervisory, advisory and/or coordinative functions, Indonesian side shall organize a Steering Committee which consists of representatives from the concerned organization in the Government of the Republic of the Indonesia.

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	5											<b></b>						
Work in	<u> </u>											l				l		
Indonesia	}		<u></u>									]	]_]	1	]	H		]
		:	12.2			1 7			i									
Work in																		
Japan								:									<b>!</b>	1
		L	L	L						L		L	ļ	<u> </u>	L	<u>.                                    </u>	Ĺ	L
Report Presentation	Δ	/R:					∆. (R (.:	i )				IT.	2 /R ( :	2)		Δ F/R		Δ F/R
			· · · ·					· ·						- <b>,</b>				

IC/R : Inception Report
IT/R(1): Interim Report(1)
IT/R(2): Interim Report(2)
DF/R : Draft Final Report
F/R : Final Report

# Questionnaire

for
Integrated Transportation System Improvement
by
Railway and Feeder Service
in
Jabotabek Area

To: Directorate General of Highway (Bina Marga)

- 1. How are you going to implement projects proposed in the Arterial Road System Development Study (ARSDS)? How have you put priorities on those proposed projects?
- Give information on major development projects (ongoing and planned) in the urban highway construction program.

To: Directorate General of Land Transport (DGLTIW)

- 1. Background and Priority of Project
- (1) How have the following factors affected to the needs of reviewing the last Master Plan (1981) of Railway Development in JABOTABEK area:
  - 1) urban expansion and development in the JABOTABEK area,
  - 2) improvements of railway systems,
  - 3) development of other modes of urban transportation systems such as that of urban highway network, which have taken place since the formulation of the last Master Plan in 1981?
- (2) How do you consider the present and future roles of railways in the urban transportation system in the JABOTABEK area?
- (3) Give information on the status of present study project in the ongoing REPELITA IV.
- 2. Scope of Study
- (1) Which would you like to put emphasis in the analysis of present study: either on the formulation of policies and strategies on integrated urban transportation system development or on the identification and the feasibility analysis of development projects?
- (2) What mode of transportation would you like to be analysed in detail as a feeder or supplementary service for the railway system in JABOTABEK area? Is there any plan of introducing new transport system as a mode of public transportation?

- 3. Conduct of the Study
- (1) Have you already organized a Steering Committee for the Study? Please list organizations which will be included in the Committee.
- (2) When do you expect the Study be completed? Are you planning the result of the Study to be reflected in the next national development plan, REPELITA V?
- 4. Requirements on Data

The following statistical data, maps and drawings, etc. shall be required for the conduct of the Study:

- (1) Development plans
  - 1) Land use plans
  - 2) Urban development plans
- (2) Railways
  - 1) Diagram for trains operating in the JABOTABEK area
  - 2) Passenger traffic data including OD of passengers
  - 3) Tariff for passengers
  - 4) Composition of rolling stock operating in the JABOTABEK area
  - 5) Data on track structure
  - 6) Data on signalling and communication facilities
  - 7) Revenues and expenditures of railways
  - 8) Maps and drawings indicating major stations and their surroundings
- (3) Other transport services
  - 1) Bus routes (maps) in the JABOTABEK area
  - 2) Number of buses and other modes of transportation operating in the JABOTABEK area

### To: Jakarta City

- 1. How do you consider the present and future roles of railways in the urban transportation systems in the JABOTABEK area?
- 2. Which direction, east-west or north-south, are you guiding the future expansion of urbanized area? What are reasons of the urban expansion in the direction?
- 3. Do you have any specific idea of developing Kota area?
- 4. Provide information and data indicating current situation of urban development and future plans.
- To: Badan Pengkajian dan Penerapan Teknologi (BPPT)
- 1. Is there any plan of introducing new transport system (eg. Light Rail Transit System, etc.) as a mode of public transportation in the JABOTABEK area?

To: Department of Communication, Planning Bureau

- 1. How do you consider the present and future roles of railways in the urban transportation system in the JABOTABEK area?
- Give information on the status of the present study project in the ongoing REPELITA IV.

ing the state of t

grand the first that the

n de la compresión y procédencia posial de la compresión de la compresión de La compresión de la compresión de

#### 面会者リスト

(1) Department of Communication (運輸省)

Amir Harbani

Planning Beaureu

L. Denny Siahaan

"

A. R. Gultom

Reserch and Development Agency

(2) Directorate General of Land Transport and Inland Waterways (陸運総局)

Giri S. Hadinardjono

Director General

Gatot Soedjantoko

Secretary Directorate General

Mulyadi Hadikusumo

Planning

RM. Fauzi Diradia

"

Timur Sebayang

Urban Transport

Bahal M.

"

Sobri Nawawi

Bus Urban Company (PPD)

Marsono Mulyodihandjo

Project Management Group (PMG)

Soeparto

11

(3) Agency for the Assessment and Application of Technology (BPPT……科学技術応用評価庁)

Wardiman Djojonegoro

Deputy Chairman for Administration

Agus Purnomo

Taufik Adiwianto

Indrayati M. Subagio

(4) Department of Public Works (公共事業省)

Muksin

Urban Transport

(5) BAPPEDA DKI(州開発企画庁)

Suhadi

(6) 日本大使館

内波謙一

一等書記官

(7) JICAインドネシア事務所

北野康雄

所長

松岡和久

次長

石塚準次

所員

**丘底資本** 8

	<del></del>	1		_						<u> </u>	 - <u></u>		<del></del>			1
BPPT (BPPT の業務概要)  BPPT (BPPT の業務概要)  A 4 24 24 オリジナル 1  列車ダイヤ (中央線)  - " - (東線、西線)  大道道療表  JABOTABEK 鉄道プロジュクト  Project Description for JABOTABEK  Railway Project (Phase V Program) Feb. 1986 (ベカシ、東西線信号改良)  Jakarta Metropolitan Transportation (Intermediate Program JABOTABEK  Railway Project (Phase IV - 2)  Program Sept. 1983 (通信改良)  Implementatian Program JABOTABEK  Railway Project (Phase IV Program)  Dec. 1986 (マンガライーボゴール間信号)  PykA Balance Sheet, Fiscal Year of 1981 - 1987  A 4 27 " 1  A 1 3 " 1  " 1  " 1  " 1  " 1  " 1  " 1	収集先名又は発行機関	BPPT	DGLT		"	JICA EXPERT	DGLT									
		1	FH	<b>~</b>			r			; +1						
	4ングナシロパーの圏	オリジナル	ሊ	* .	*	*	*		:	*		*	· · · · · ·	:		
	リグ数	24	П	-		26	13			2.2		G		. :	<b>y1</b>	
答 料 の 名 称 形 BPPT (BPPT の業務概要) 列車ダイヤ (中央線)  ー ー 一 (東線、西線) 鉄道運賃表 JABOTABEK 鉄道プロジェクト Project Description for JABOTABEK Railway Project (Phase V Program)Feb. 1986 (ベカシ、東西線信号改良) Jakarta Metropolitan Transportation (Intermediate Program)Phase IV-2 Program Sept. 1983 (通信改良) Implementatian Program JABOTABEK Railwvy Project (Phase IV Program) Dec. 1986 (マンガライーボゴール間信号) PJKA Balance Sheet, Fiscal Year of 1981 - 1987			¥.	A 1	 К	A 4	A 4			-		A 4				
答 科 の 名 称  BPPT (BPPT の業務概要) 列車ダイヤ (中央線)  ー ー ー (東線、西線) 鉄道道燈表  JABOTABEK 鉄道プロジェクト  Projoct Description for JABOTABEK Railway Project (Phase V Program) Feb. 1986 (ベカシ、東西線信号改良) Jakarta Metropolitan Transportation (Intermediate Program) Phase IV - 2 Program Sept. 1983 (通信改良) Implementatian Program JABOTABEK Railwyy Project (Phase IV Program) Dec. 1986 (マンガライーボゴール間信号) PJKA Balance Sheet, Fiscal Year of 1981 - 1987	鄢															
音 格 の 名 称 BPPT (BPPT の業務概要) 列車ダイヤ (中央線)  ー " ー (東線、西線) 鉄道運賃表 JABOTABEK 鉄道プロジェクト Projoct Description for JABOTABEK Railway Project (Phase V Program) Feb. 1 (ベカシ、東西線信号改良) Jakarta Metropolitan Transportation (Intermediate Program) Phase IV - 2 Program Sept. 1983 (通信改良) Implementatian Program JABOTABEK Railwvy Project (Phase IV Program) Dec. 1986 (マンガライーボゴール間信号) PJKA Balance Sheet, Fiscal Year of 1981 -	炭													٠	5 . 5	
<b>簡 1 2 8 4 で 0</b> 0 <b>0 0 0</b>	対がの名等	BPPT (BPPT の業務概要)	列車ダイヤ(中央線)		鉄道運賃表	JABOTABEK鉄道プロジェクト	Project Description for JABOTABEK	Feb. 1	(ベカシ、東西線信号改良)	Jakarta Metropolitan Transportation	Program Sept. 1983 (通信改良)	Implementatian Program JABOTABEK	Railwuy Project (Phase IV Program)			
	番号	<del></del> 1	2	က	せ	ഥ	φ			<u></u>		<sub>∞</sub>			တ	

搬

盟

盤

Moc	運輸金	Ministry of Communications	
DGLT(PHBD)	陸運総同	Directorate General of Land Transport and	Perhubungan Darat
		Inland Waterways	
PJKA	インドネツア国鉄	Indonesian State Railway	Perusahaan Jawatan Kereta Api
PPD	公覧バス会社	Public Bus Company of DKI Jakarta	
DAMRI		Bus except Jakarta	
PMG		Project Management Group	
PMS		Project Manegement Service	
PU	公共專業省	Ministry of Public Works	
	道路総局	Directorate General of Highway	Bina Marga
BAPPENAS	国家開発企画庁	National Development Planning Board	
BPPT	<b>科学技術応用評価</b> 庁	Agency for the Assessment and Application of	BPP Teknologi
		Technology	
BAPPEDA	州開発企画庁	Provincial and Local Planning Office	
DKI	ジャカルタ特別市	DKI Jakarta	
BKSP Jabotabek	ジャボタベック開発調整庁	Jabotabek Development Coordination Board	
JABOTABEK	ジャデタバック	Jakarta, Bogor, Tangerag and Bekasi	હે
REPELITA	国家開発5カ年計画	Five Year National Development Plan	



