

3. Questionnaire回答結果

Data Availability Check Sheet Jogja-Solo-Kertosono-Surabaya Corridor

No	Data/Item	Availability	Place of Date	Name of Material	Note
1	Transport Data/Information				
1)	Data on the roads in the study area a) Road maps showing road classification b) Road/bridges inventories	✓ ✓			Local Government Local Government/Ministry of Communication
2)	Number of registered vehicle				
3)	Latest traffic survey in the study area a) Location of traffic counts station b) Traffic counts data by vehicle type c) Travel speed data d) Vehicle (and cargo) O-D matrix e) Zoning map for O-D matrix				Local Government/Ministry of Communication
4)	Public transport data in the study area a) Network maps and capacity of roads b) Routes and frequencies of public transport by mode c) No. of passengers of main routes				Local Government/Ministry of Communication
5)	Latest future traffic demand forecast a) Future OD matrix by mode (passenger & cargo) b) Traffic assignment data				Local Government/Ministry of Communication
2	Technical data/information				Bakosurtanal-NCASM (National Coordinating Agency for Surveys and Mapping)
1)	Topographic maps covering the study area a) 1/5,000 b) 1/10,000 c) 1/25,000 d) 1/50,000				
2)	Aerial photos covering the study area				Bakosurtanal-NCASM

No	Data/Item	Availability	Place of Date	Name of Material	Note
3)	Design standards and specification a) Highway design standard b) Bridge design standard c) Pavement design standard d) Drainage design standard e) Road facility design guide f) Maintenance guide g) Environmental quality standard	/>>>>>>			See below the Table
4)	Prices and cost information a) Standard price list for construction materials b) Labor and operator wages c) Construction cost d) Maintenance cost e) Road construction-related tax and its breakdown				Local Government
5)	Geodetic data in the study area a) Triangulation point network b) Bench-mark network c) Point description d) Triangulation point data lists and survey maps				Bakosurtanal-NCASM
6)	Geological data a) Geological and soil maps b) Location of soft ground c) Results of geological/soil investigation				Ministry of Energy and Natural Resources
7)	Meteorological data a) Annual, monthly and daily perception data b) Annual, monthly and daily temperature data				BMG- Agency for Meteorology and Geophysics
8)	Hydrological data of rivers in the study area				Local Government
9)	Oceanic data a) Tidal data b) Data of tidal wave/tsunami				Bakosurtanal-NCASM

Data Availability Check Sheet
Jogja-Solo-Kertosono-Surabaya Corridor

No	Data/Item	Availability	Place of Date	Name of Material	Note
1	Transport Data/Information				
1)	Data on the roads in the study area a) Road maps showing road classification b) Road/bridges inventories	✓ ✓			
2)	Number of registered vehicle				Local Government/Ministry of Communication
3)	Latest traffic survey in the study area a) Location of traffic counts station b) Traffic counts data by vehicle type c) Travel speed data d) Vehicle (and cargo) O-D matrix e) Zoning map for O-D matrix				Local Government/Ministry of Communication
4)	Public transport data in the study area a) Network maps and capacity of roads b) Routes and frequencies of public transport by mode c) No. of passengers of main routes				Local Government/Ministry of Communication
5)	Latest future traffic demand forecast a) Future OD matrix by mode (passenger & cargo) b) Traffic assignment data				Local Government/Ministry of Communication
2	Technical data/information				
1)	Topographic maps covering the study area a) 1/5,000 b) 1/10,000 c) 1/25,000 d) 1/50,000				Bakosurtanal-NCASM (National Coordinating Agency for Surveys and Mapping)
2)	Aerial photos covering the study area				Bakosurtanal-NCASM

No	Data Item	Availability	Place of Date	Name of Material	Note
3)	Design standards and specification a) Highway design standard b) Bridge design standard c) Pavement design standard d) Drainage design standard e) Road facility design guide f) Maintenance guide g) Environmental quality standard	✓ ✓ ✓ ✓ ✓ ✓ ✓			See below the Table
4)	Prices and cost information a) Standard price list for construction materials b) Labor and operator wages c) Construction cost d) Maintenance cost e) Road construction-related tax and its breakdown				Local Government
5)	Geodetic data in the study area a) Triangulation point network b) Bench-mark network c) Point description d) Triangulation point data lists and survey maps				Bakosurtanal-NCASM
6)	Geological data a) Geological and soil maps b) Location of soft ground c) Results of geological/soil investigation				Ministry of Energy and Natural Resources
7)	Meteorological data a) Annual, monthly and daily perception data b) Annual, monthly and daily temperature data				BMG- Agency for Meteorology and Geophysics
8)	Hydrological data of rivers in the study area				Local Government
9)	Oceanic data a) Tidal data b) Data of tidal wave/tsunami				Bakosurtanal-NCASM

No	Data/Item	Availability	Place of Date	Name of Material	Note
10)	Construction waste a) Government policy on construction waste b) Related laws and acts c) Disposal sites and costs				Local Government

- o Highway design standard : Perencanaan Geometrik untuk Jalan Antar Kota
- o Bridge design standard : Bridge Design Manual 1 & 2-1993
- o Pavement design standard : Pelaksanaan Perkerasan Jalan Beton Semen-2002
- o Drainage design standard : Desain Drainase Perkerasan Jalan
- o Road facility design guide : Pemeliharaan rutin Perkerasan Jalan
- o Maintenance guide : Pemeliharaan rutin Perkerasan Jalan
- o Environmental quality standard :

Note: Please open the www.kimpraswil.go.id for others standard.

BADAN PENGATUR JALAN TOL (TOLL ROAD REGULATION AGENCY)

Law and Regulations

Based on the Law No. 38 / 2004 , article no. 45 , Government Regulation No. 15 / 2005 article no. 84 and Ministerial Decree No. 295/PRT/M/2005 dated 28 June, 2005 regarding the establishment of BPJT (Toll Road Regulation Agency)

Organization Structure

Consist of :

- 3 (three) persons from Government
- 1 (one) person from stake holder / professional association
- 1 (one) person from the community / academician

Function of BPJT (Badan Pengatur Jalan Tol / Toll Road Management Agency)

- To give recommendation on the first tariff and tariff adjustment to the Minister
- To take over the right of toll road management which the concession has completed and recommend the next operational to the Minister
- To take over temporarily the right of toll road management which failed in the implementation of the concession , and to tender the right of management later on
- Preparation of toll road management which consist of analysis of financial feasibility, F/S , and preparation of environmental impact analysis (Amdal)
- Procurement of toll road investment by transparency and fair tendering
- To assist the implementation of land acquisition process on securing budget availability of the enterprises and creating the utilization mechanism of it
- To monitor planning and construction implementation and the operation and maintenance of toll road by enterprises
- To supervise the enterprises on the implementation of whole obligation of toll road management agreement and report it periodically to the Minister

Budget

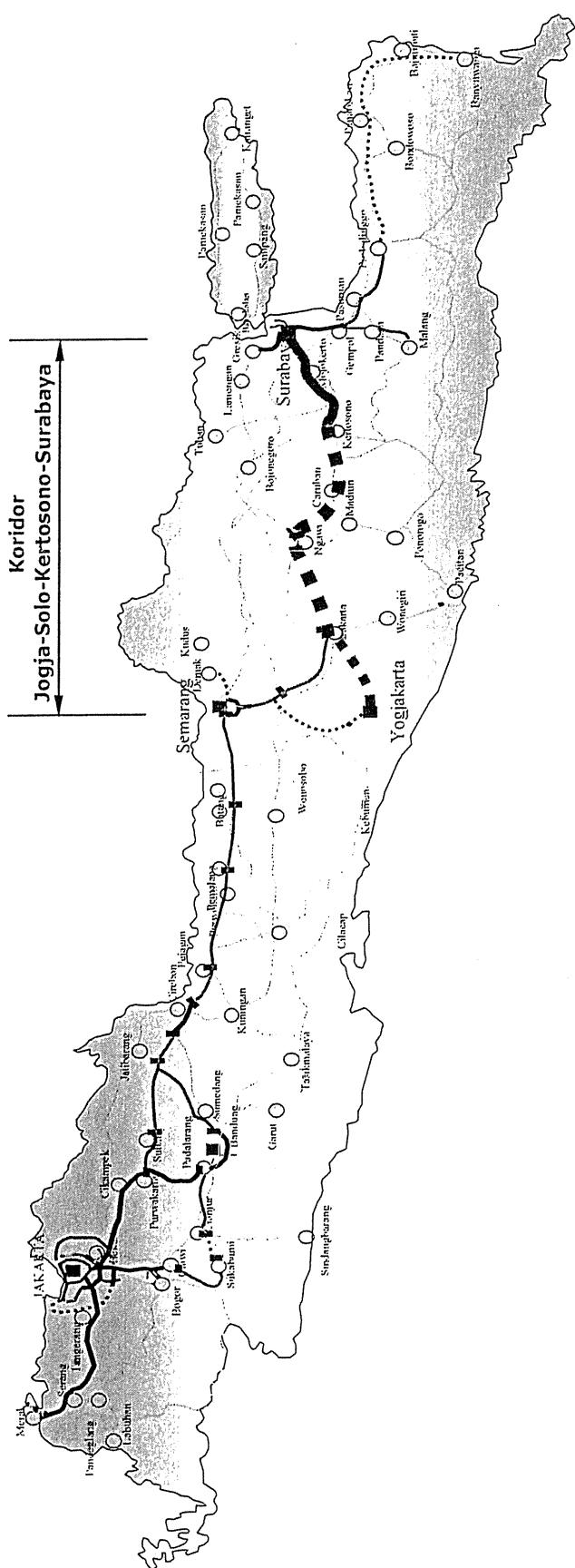
The budget for operational of BPJT = APBN (State Budget).

PROJECT DIGEST

1. Project Title	Indonesia Toll Road Development Project Corridor: Jogja-Solo- Kertosono -Surabaya
2. Location	Central Java/Yogyakarta/East Java
3. Executing Agency	Ministry of Public Works Directorate General of Highways c.q. Directorate of Freeway and Urban Road
4. Overall Objective	to improve road networks access and capacity as well as regional development in order to enhance the economic development and alleviate the poverty especially along the strategic road corridor of Jogja-Solo-Kertosono-Surabaya linking Jogja in Central Java with Surabaya in East Java
4. Specific Objective	a) reduce transport cost and travel time as well as improve the accessibility and mobility services by providing and building road with higher standard, i.e. toll road along the corridor (b) accelerate the toll road development in order to improve and maintain the economic development and its growth
6. Scope of Works	(a) Pre-FS, FS, final engineering design, construction, and construction supervision of the toll road development (c) financing these activities and others financial cost borne during the activities
7. Duration	3 years
8. – Length (km) Jogja-Solo –Kertosono Jogja-Solo-Kertosono-Surabaya - Design Speed (kph) - ROW (m) - Lane Width (m)	214 289 100 60 3,5
9. Estimated Viability Indicator	<ul style="list-style-type: none"> - Economic Internal Rate of Return (EIRR) <ul style="list-style-type: none"> - Jogja-Solo-Kertosono = 23,15 % - Jogja-Solo-Kertosono-Surabaya = 25,98 % - Financial Internal Rate of Return (FIRR) <ul style="list-style-type: none"> - Jogja-Solo-Kertosono = 12,18% - Jogja-Solo-Kertosono-Surabaya = 13,44 %
10. Progress to Date	<ul style="list-style-type: none"> - Pre feasibility Study on Cirebon-Semarang-Surabaya Toll way Construction Project, 1997 - Surabaya-Mojokerto and Kertosono-Mojokerto have had investors, that are, PTMarga Nujyasumo Agung and PT Hanurata Coy Ltd, respectively.

PRELIMINARY OF VIABILITY SENSITIVITY ANALYSIS (Unbundling X Bundling)

Parameter	Unbundling					Bundling		
	Jogja-Solo	Solo-Mantingan	Mantingan-Ngawi	Ngawi-Kertosono	Kertosono-Mojokerto	Mojokerto-Surabaya	Jogja-Solo-Kertosono	Jogja-Solo-Kertosono-Surabaya
Estimated existing traffic in 2009 (vpd)	33.096	21.846	14.867	17.466	27.261	56.519		
Estimated Traffic Volume (vpd)	18.000	10.756	8.513	9.927	14.910	32.623	11.818	15.171
Length (km)	45	58	27	84	38	37	214	289
Estimated Construction Cost/km (US\$ Mill)	3,16	3,16	3,16	3,68	3,16	4,21	3,68	3,68
Estimated Land Cost/km (US\$ Mill)	0,63	0,63	0,53	0,32	0,63	0,84	0,47	0,58
Estimated Investment Cost (US\$ Mill)	273	352	168	548	231	299	1.444	2.004
Estimated EIRR (%)	30,1	23,68	22,12	21,88	27,82	31,22	23,25	25,11
Estimated FIRR on Equity (%)	16,73	11,98	10,63	10,20	15,17	17,77	12,18	13,44



**QUESTIONNAIRE FOR THE STUDY ON PUBLIC-PRIVATE PARTNERSHIP SCHEME PLAN
FOR DEVELOPMENT OF
TRANS-JAVA TOLL ROAD IN REPUBLIC OF INDONESIA**
August 2005

1. INFORMATION USEFUL FOR THE PLANNING OF PREPARTION STUDY

(1) Section targeted for the case study

Regarding the intended PPP scheme case study of the Trans Java Toll Road Network, we are proposing the corridor Jogja-Solo-Kertosono-Surabaya.

1.1 Background

The World Bank supported Java Arterial Road Network Study (JARNS) estimated that in 2000, 49 % of the arterial road network in Java suffered from congestion, and by 2010 this was expected to rise to 93 %, of which 38 % would be significant to high congestion. JARNS estimated that was a substantial need for immediate inter-urban arterial road capacity expansion, and identified a priority program to 2010 to include additional major toll road. The corridor was included in the strategic road network and should be improved within the period of 2005-2010. Accordingly, the government has committed during Infrastructure Summit I to also include this corridor on the toll road development acceleration program for period of 2005-2009.

The project intended benefits would accrue to two main groups. First, direct user road users would benefit from traveling over these corridors of high-quality highway, well-maintained and operated with proper safety and emergency services. Traffic on the new toll road would come from two main sources: traffic diverted from the existing road, and traffic induced by the shorter travel times and the reduced transport costs which come from shorter distance and better road alignment and gradients. Second, the population at large would benefit from the increased economic activity and trade between the main center served by the corridors. The net reduction in travel time brought about by construction of new toll road should effectively reduce transport cost either for private transport or public/freight transport.

The project also would remove physical constraints in road transport and reduced transport costs for goods and passenger. This would enable a higher level of economic activity and stimulate trade and regional development, export, tourism, and mobility of people. By reducing travel time and improving road alignments, travel speed, and comfort ability through construction of toll road for this road corridor, the proposed project would upgrade link between Jogja/Central Java to Surabaya in East Java

1.2 Location and Route

The project is located across in three provinces: Central Java, Jogjakarta, and East Java. The corridor will pass the Jogja-Solo-Mantingan-Ngawi-Kertosono-Mojokerto-Surabaya . The cities are well known as tourisms and industrial cities centre. **Figure 1** shows the Route of this corridor.

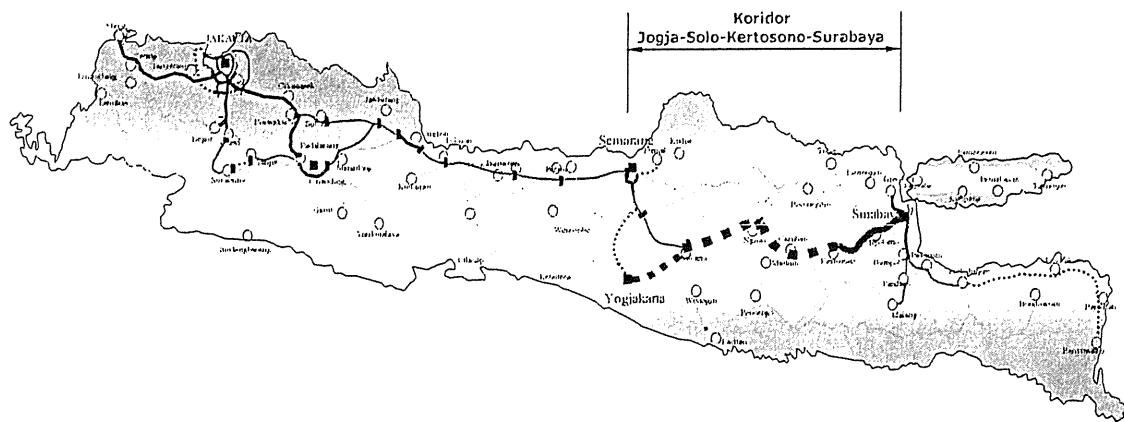


Figure 1. Location and Route of Jogja-Solo-Kertosono-Surabaya

1.3 Specification of the Jogja-Solo-Kertosono-Surabaya

Table 1 shows the summary of the preliminary data. The traffic, EIRR and FIRR is estimated based on the very roughly assumption and estimation.

Tabel 1. Preliminary Characteristics of Jogja-Solo-Kertosono-Surabaya

Parameter	Unbundling						Bundling	
	Jogja-Solo	Solo-Mantingan	Mantingan-Ngawi	Ngawi-Kertosono	Kertosono-Mojokerto	Mojokerto-Surabaya	Jogja-Solo-Kertosono	Jogja-Solo-Kertosono-Surabaya
Estimated existing traffic in 2009 (vpd)	33.096	21.846	14.867	17.466	27.261	56.519		
Estimated Traffic Volume on toll road (vpd)	18.000	10.756	8.513	9.927	14.910	32.623	11.818	15.171
Length (km)	45	58	27	84	38	37	214	289
Estimated Construction Cost/km (US\$ Mill)	3,16	3,16	3,16	3,68	3,16	4,21	3,68	3,68
Estimated Land Cost/km (US\$ Mill)	0,63	0,63	0,53	0,32	0,63	0,84	0,47	0,58
Estimated Investment Cost (US\$ Mill)	273	352	268	548	231	299	1.444	2.004
Estimated EIRR (%)	30,1	23,68	22,12	21,88	27,82	31,22	23,25	25,11
Estimated FIRR on Equity (%)	16,73	11,98	10,63	10,20	15,17	17,77	12,18	13,44

Note: Surabaya-Mojokerto and Kertosono-Mojokerto have had investors, that are, PT Marga Nujyasumo Agung and PT Hanurata Coy Ltd, respectively.

The corridor is categorized as an intra-urban toll road. The general standard of intra-urban toll road as follow:

- Minimum design speed : 100 kph
- Minimum Lane Width : 3,5 m
- Minimum ROW : 60 m

(2) Relevant Organization

The relevant organization within the Ministry of Public Works regarding the activity in toll road development is Directorate of Freeway and Urban Road (DFUR) and Toll Road Regulatory Body (BPJT). The full authority of toll road development lies at the Government through DFUR that includes:

- (1) **regulation:** formulation of planning policy, arrangement of general planning, and establishment of regulation in order to build toll road that are safe, comfort, efficient, and effective as well as in transparent and opened business/development
- (2) **empowerment:** formulation of guidance and technical standards, services, empowerment, also research and development
- (3) **development/business:** investment, technical planning, implementation of construction, operation and/or maintenance
- (4) **supervision:** monitoring and evaluation of business, and supervision of the toll road services.

While the DFUR will continue its important role in the planning and development of Indonesia's Highway Network, BPJT will be responsible for the development of all toll roads which form part of this network. To ensure that the toll road development (business) is undertaking in transparent, competitive, and opened process, the members of BPJT is to include all stakeholders which are appointed and responsible to the Minister of Public Works.

The main tasks and functions of BPJT are to:

- give recommendation of initial toll tariff and its adjustment to the Minister
- take over of toll road development/business at the end of concession period as well as recommendation for further operation
- take over the temporary toll road development/business which is default in conducting the concession agreement and arrange for further re-tender
- undertake the preparation of toll road development/business which covers analysis of financial feasibility, feasibility study, and environmental feasibility.
- undertake the procurement of toll roads development/business through transparent and opened tender process
- facilitate the land acquisition process in which the land acquisition cost is coming from the business entities by assisting them to develop a land acquisition plan and its mechanism
- monitor the planning, construction, operation and maintenance of toll road development/business which is undertaken by the business entities.
- supervise the business entities on the implementation of concession agreement and periodically reporting to the Minister.

For the specific stage as requested is shown in Table 2.

Table 2 Activities and its Relevant Organization in Toll Road Development Within the Ministry of Public Works

No	Activity	Relevant organization	Remark
1	Toll Road Design	➤ DFUR	➤ DFUR conducts the FED for toll road developed/financed by the Government/Loan, and legalizes the FED for toll road developed/financed by the private sector.
		➤ BPJT	➤ BPJT approves the FED for toll road developed/financed by private sector
2	Toll Road Construction	➤ DFUR	➤ DFUR conducts the construction process for toll road developed/financed by the Government/Loan
		➤ BPJT	➤ BPJT monitors & supervises its construction for toll road developed/financed by private sector
3	Maintenance and Operation (O&M) of Toll Road	➤ DFUR	➤ DFUR develops the standard, regulation etc related to the O&M
		➤ BPJT	➤ BPJT monitors its business Operation and Maintenance
4	Introducing ITS	➤ DFUR	➤ DFUR develops the standard, regulation etc related to the ITS implementation
		➤ BPJT	➤ BPJT monitors and supervises its implementation
5	Tariff of the Toll Road	➤ DFUR	➤ DFUR develops policy on toll tariff
		➤ BPJT	➤ BPJT recommends toll tariff to the Minister
6	Bidding of the concession of toll road	➤ DFUR	➤ DFUR conducts the tender process for toll road developed/financed by the Government/Loan
		➤ BPJT	➤ BPJT conducts tender process for toll road developed/financed by private sector
7	Infrastructure Development through PPP	➤ DFUR	➤ The policy, planning, and regulation of toll road development remains on the DFUR
		➤ BPJT	➤ BPJT implement the policy related to toll road business
8	Environmental Impact Assessment (EIA)	➤ DFUR	➤ DFUR undertakes EIA for toll road developed/financed by the Government/Loan
		➤ BPJT	➤ BPJT undertakes EIA for toll road developed/financed by the private sector
9	Land Acquisition and Resettlement (LAR)	➤ DFUR	➤ DFUR undertakes land acquisition process and its regulation as well as resettlement. For the toll road developed/financed by the Govt./ Loan, DFUR conducts the whole process of LAR
		➤ BPJT	➤ BPJT assist in land acquisition in term of ensuring the fund availability from the business entity and its mechanism

(3) Data Request Sheet

1. Institutional Settings of the toll road administration

(1) Organization chart-

1. Ministry of Public Works (MPW)

The general of toll road administration (Regulation, Empowerment, Development/Business, and Supervision) is under the Directorate of Freeway and Urban Road (DFUR), Directorate General of Highway (DGH). Exclusively for the toll road business (undertaken by the business entity) is under administration of Badan Pengatur Jalan Tol (BPJT). **Figure 2** shows the organization related to the toll road provision within the MPW

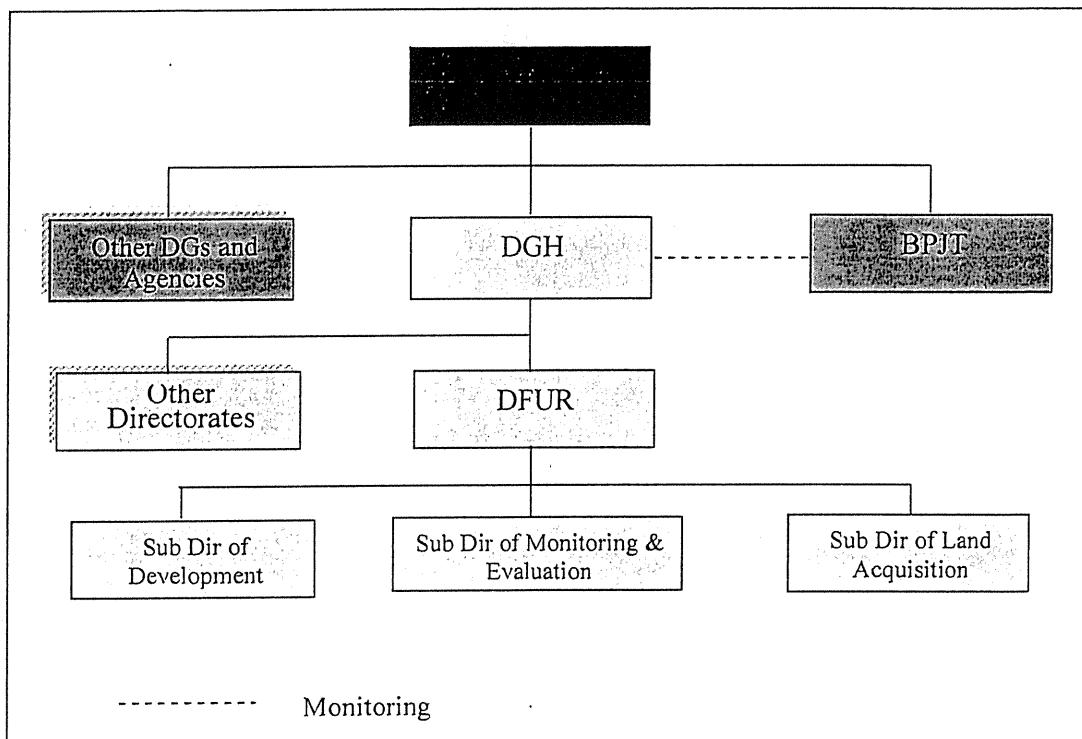


Figure 2. MPW Organization-Related to Toll Road Development

2. Indonesian Toll Road Authority (BPJT)

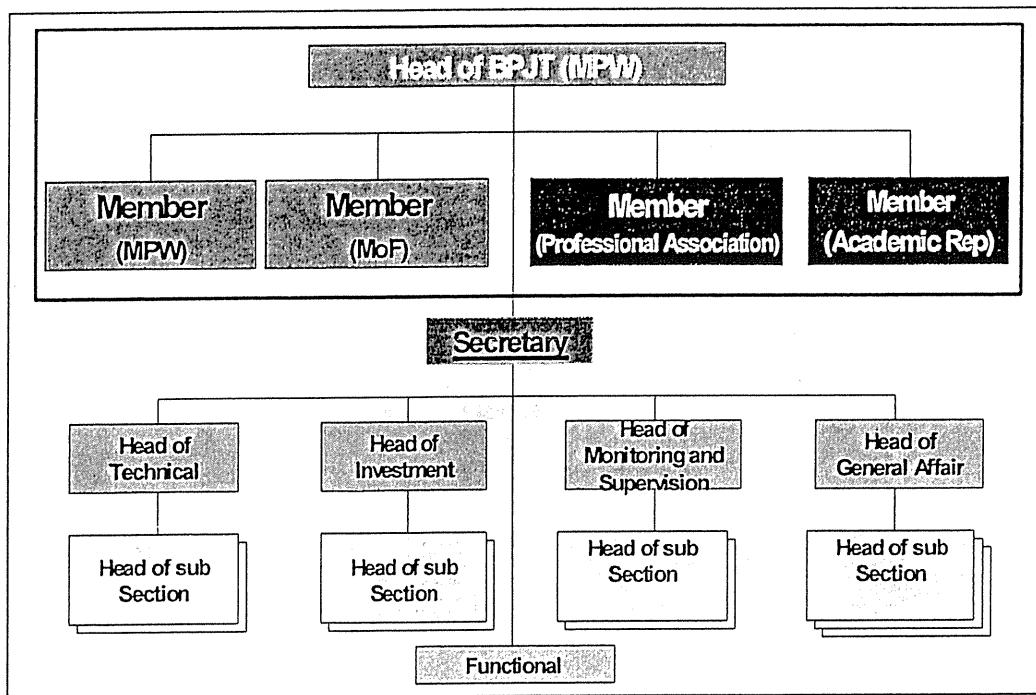


Figure 3. BPJT Organization

(2) Laws and Regulation

1. New Road Law No. 38/2004 –available
2. BOT Law – Revision of Presidential Decree No. 7 /1998 on the Participation of Business Entity in the Provision of Infrastructure is ongoing under coordination of Committee on the Policy for the Acceleration of Infrastructure Provision (KKPPI)
3. Laws and Regulation related to toll road development
 - Government Regulation No 15/2005 on Toll Road-available
 - Presidential Decree No. 36/2005 on Land acquisition

(3) Procedures

The Presidential Decree No 7/1998 (now is under revision) is the basis for investment procedure as it is shown on the following Figure 4.

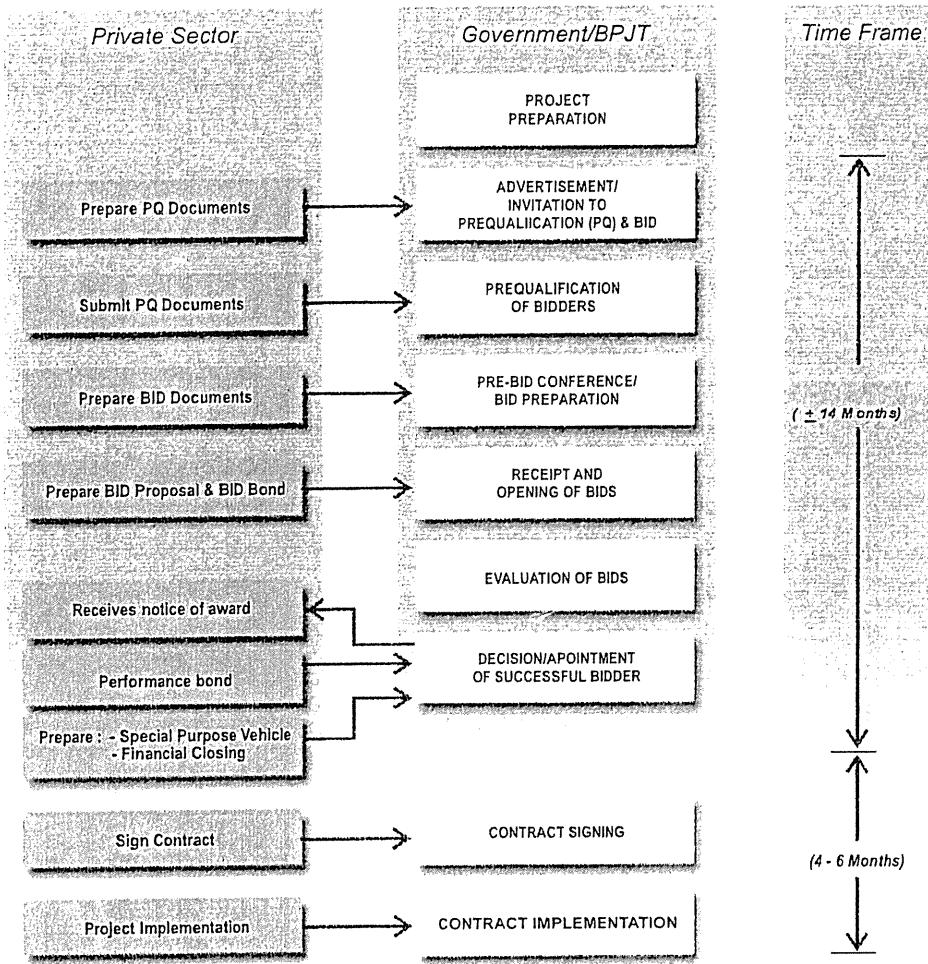


Figure 4. Investment Procedure

2. Information about toll road projects

(1) Project status

- **Table 3** shows the toll road development program and its progress.
- Model of bid and contract documents is available

(2) Progress of Jogja-Solo-Kertosono-Surabaya

Pre Feasibility study for Cirebon-Surabaya included this Corridor has been conducted in 1997. Specific study for this corridor is not available yet. Roughly analysis has been done to determine the EIRR and FIRR (see **Table 1**)

(3) Information about Environmental and social consideration system in Indonesia

Related division within the Ministry of Public Works concerning the Environmental Aspect is Sub Directorate of Environmental Technical Affair-Directorate of Technical Affair-Directorate General of Highway.

- Government Regulation No. 27/1999 on EIA-available in Indonesia
- Decree No. 8/2000 on Community Involvement and Information Openness in the Process of EIA-available in Indonesia
- Decree of SMEvt. No.17/2001-available in English

3. ARRANGEMENTS CONCERNING THE IMPLEMENTATION OF THE STUDY

(1) Organization to steer and implementing study

Proposed organization chart for the implementing study is shown on the **Figure 5**

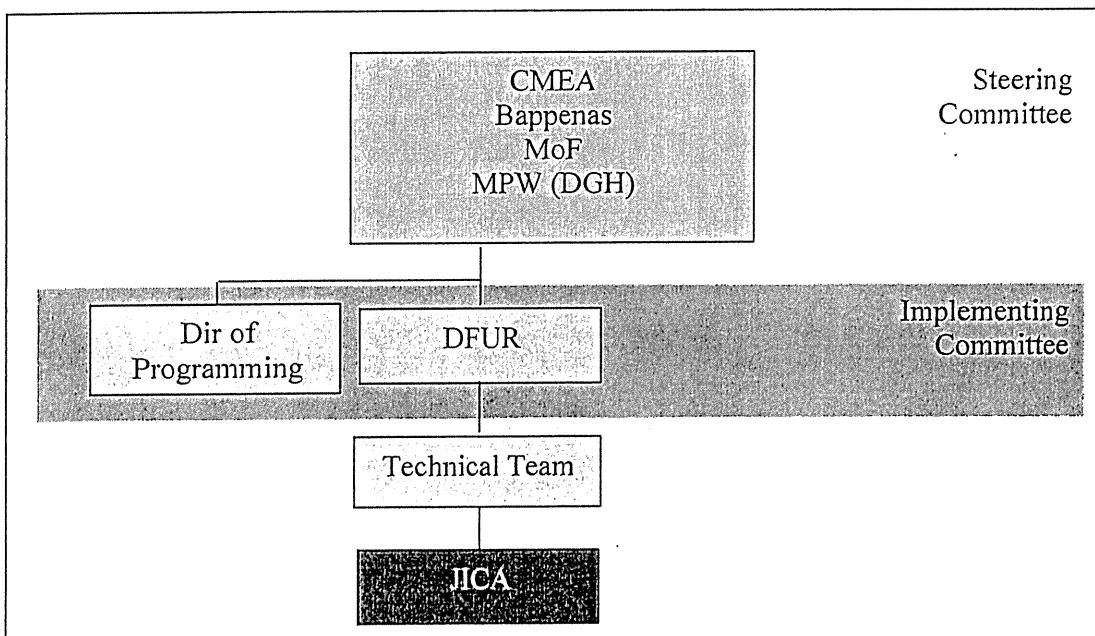


Figure 5. Proposed Project Organization

Technical team will manage the study and work hand in hand with the JICA. One or two persons from DFUR will be assigned as counterpart.

- (2) Availability of the Government's equipment for implementation of the study**
The DFUR will provide office space, computer and other support facilities

- (3) Concerned Organization for Implementation of the Study**
The concerned organization for implementation of the study is Directorate of Freeway and Urban Roads (DFUR) under the DGH with the main task to implement the policies on freeway and metropolitan roads as well as to develop its financing system and investment scheme. The functions of the DFUR are:

1. Planning and Programming of freeway and toll road
2. Empowerment of land acquisition for freeway and toll road
3. Developing of investment policies on freeway and toll road
4. Monitoring and Evaluation of freeway and toll road
5. Technical planning and construction of metropolitan road
6. Internal affairs

Figure 6 shows the organization structure of the DFUR

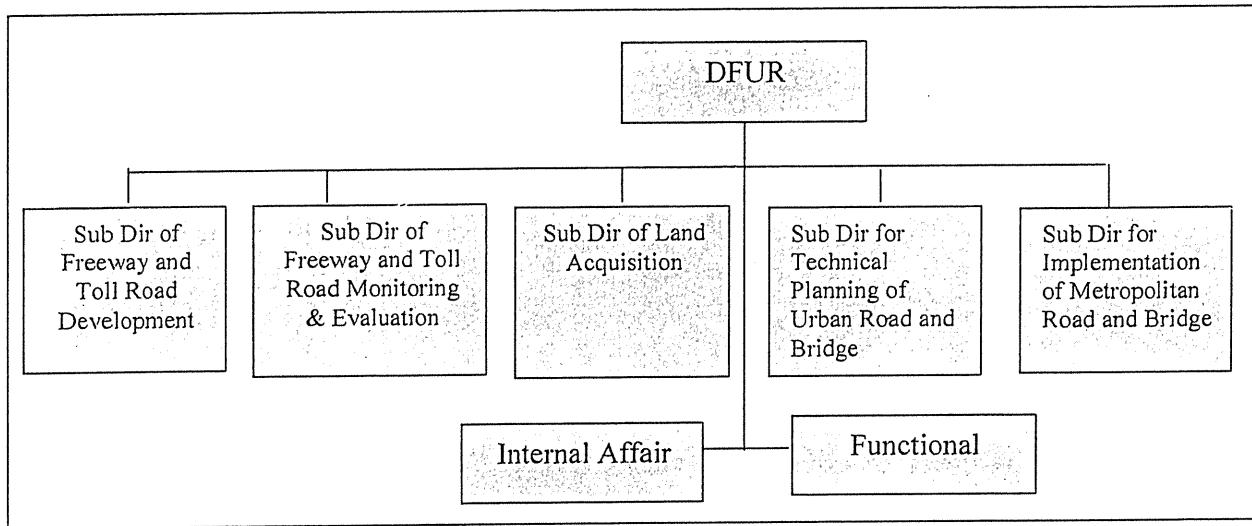


Figure 6. Organization Structure of the DFUR

The DFUR consists of:

1. Sub Directorate for Development of Freeway and Toll Road, function
 - a. Development of Toll road development program
 - b. Toll road management system
 - c. Development of investment policies and its study as well as its evaluation
 - d. Empowerment of technical planning and construction of toll road
2. Sub Directorate for Land Acquisition, function
 - a. Prepare for toll road land acquisition plan
 - b. Inventorization and conduction of land acquisition for toll road
 - c. Socialization of land acquisition
 - d. Securitization of land acquisition result
3. Sub Directorate for Monitoring and Evaluation of Freeway and Toll Road, function
 - a. Development of standard and operational and maintenance procedure for freeway and toll road
 - b. Database collection and processing of freeway and toll road
 - c. Preparation of evaluation criteria development
 - d. Evaluation of operational services of freeway and toll road
 - e. Management of toll road leger

4. Sub Directorate for Technical Planning of Urban Road and Bridge, function
 - a. Program development for metropolitan road and bridge
 - b. Preparation of technical documents for metropolitan road and bridge
 - c. Development of metropolitan road management system
 - d. Development of technical planning and standard
 - e. Development of EIA document for metropolitan
 - f. Technical empowerment for road and bridge
5. Sub Directorate for Implementation of Metropolitan Road and Bridge, function
 - a. Preparation of proposal material for midterm and long term program for development of metropolitan road and bridge
 - b. Monitoring, supervision, and evaluation as well as immediate action to the construction of metropolitan road and bridge
 - c. Technical monitoring and re-design in metropolitan road and bridge construction
 - d. Technical assistance of metropolitan road and bridge development
6. Internal Affairs
7. Functional

The Contact Person for the Project:

Directorate General of Highway
 c.q. Director of Freeway and Urban Road
 Sapta Taruna Building 4th Floor
 Jl. Pattimura No. 20 Jakarta Selatan
 Phone : +62-21-724 57 52
 Fax : +62-21-724 67 73

4. TYPICAL COST

- Traffic count survey : Rp 2.5 million/post
- Topographical survey : Rp 7 mill/km
- Geotechnical investigation : Rp 2 mill/point