No.

MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

PREPARATORY SURVEY
FOR
PUBLIC-PRIVATE PARTNERSHIP
INFRASTRUCTURE PROJECT
IN
THE REPUBLIC OF INDONESIA

FINAL REPORT

SEPTEMBER 2009

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

NIPPON KOEI CO., LTD.
PADECO CO., LTD.

EID
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PREFACE

The Government of Japan decided to conduct “Public Private Infrastructure Development in the Republic of Indonesia” and entrusted it to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a Study Team headed by Mr.Ozawa Makoto of Nippon Koei from March 2009 and July 2009. The team held discussions with the officials concerned of the Ministry of Public Works as well as other officials concerned, and conducted field surveys. Upon returning to Japan, the team prepared this final report to summarize the results of the study.

I hope that this report will contribute to development in the Republic of Indonesia, and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Indonesia for their close cooperation extended to the Study Team.

September 2009,

Eiji Hashimoto
Vice President
Japan International Cooperation Agency

Mr. Eiji Hashimoto,
Vice President
Japan International Cooperation Agency

September 2009

Dear Sir,

Letter of Transmittal

We are pleased to submit herewith the Final Report of “Public Private Infrastructure Development in the Republic of Indonesia”. The report compiles the results of the Study and includes the advices and suggestions of the authorities concerned of the Government of Japan and your agency as well as the comments made by the Ministry of Public Works and other authorities concerned in the Republic of Indonesia.

The report includes the investigation on the circumstances of Public-Private Partnership (PPP) Scheme in the Republic of Indonesia, identification of issues and obstacles that hinder from promoting the implementation of PPP projects, and technical assistances which would be necessary for pushing PPP forward. In addition, the selection of candidate projects for Yen Loan projects has been conducted based on Multi-Criteria Analysis, which enables us to choose projects in an objective manner.

We wish to take this opportunity to express our sincere gratitude to your agency and the Ministry of Foreign Affairs. We also wish to express our deep gratitude to the Ministry of Public Works as well as other Governmental Agencies concerned in the Republic of Indonesia for the close cooperation and assistance extended to us during the Study. We hope this report will contribute to the development of the Republic of Indonesia.

Very truly yours,

Mr. Ozawa Makoto
Team Leader,
Public Private Infrastructure Development
in the Republic of Indonesia

Preparatory Survey
for
Public-Private Partnership Infrastructure Project
in
the Republic of Indonesia

Final Report

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ABBREVIATIONS

ADB	Asian Development Bank
APBD I	Anggaran Pendapatan dan Belanja Daerah Tingkat I (Provincial Budget)
APBD II	Anggaran Pendapatan dan Belanja Daerah Tingkat II (District Budget)
AMDAL	Analisis Menegenal Lingkungan (Environmental Impact Assessment)
BAPPEDA	Badan Perencanaan Pembangunan Derah (Regional Development Board)
BAPPENAS	Badan Perencanaan Pembangunan Nasional (Nacional Development Plan Borrad)
BLU	Badan Layanan Umum (Public Services Board)
BPAM	Badan Pengelola Air Minum (Management Board for new Drinking Water)
BPL	Below Poverty Line
BPJT	Badan Pengatur Jalan Tol (Indonesia Toll Road Authority)
BPPSPAM	Badan Pendukung Pengembangan Sistem Penyediaan Air Minum (Supporting Board for Drinking Water Devlopment)
BOT	Build, Operation, and Transfer
BPS	Biro Pusat Statistik (Central Bureau of Statistics)
BUMD	Badan Usaha Milik Daerah (Regional Owned Enterprise)
BUMN	Badan Usaha Milik Negara (State Owned Enterprise)
CA	Cooperation Agreement, Concession Agreement
CMEA	Coordination Ministry of Economic Affairs
DGCK	Dirktorat Jenderal Cipta Karya (Directorate General of Human Settlements)
DATI I	Daerah Tingkat I (Provincial Government Level)
DATI II	Daerah Tingkat II (District Government Level)
DBOT	Design, Build, Operation, and Transfer
Desa	Rural village, lowest level of Government
DG	Directorate General
DGHS	Directorate General of Human Settlements
Dinas Provincial	District level governmental department
EIRR	Economic Internal Rate of Return
FIRR	Financial Internal Rate of Return
FRP	Fiber Reinforced Plastics
GDP	Gross Domestic Product
GIP	Galvanized Iron Pipe
GIS	Geographic Information System
GL	Ground Level
GOI	Government of Indonesia
GOJ	Government of Japan
GRDP	Gross Regional Domestic Product
GSP	Galvanized Steel Pipe
HC	House Connection (To a piped water supply system, usually metered)
HDPE	High Density Polyethylene Pipe
ICR	Inception Report
Inpres	Presidential Instruction
JICA	Japan International Cooperation Agency
Kepala Desa	Head of a Village - Lowest official level of local Government
Kepmen	Ministry Regulation
Kepres	Presidential Decree
KKPPI	Komite Kebijakan Percepatan Pembangunan Infrastructure (Committee for Infrastructure Development Acceleration Policy)
LA	Loan Agreement
M.A.	Mata Air (Spring)
MCA	Multi Criteria Analysis
MDG	Millennium Development Goal
MOHA	Ministry of Home Affairs
MOF	Ministry of Finance
MOU	Memorandum of Understanding

MPW	Ministry of Public Works
NJOP	Nilai Jual Object Pajak (Tax Object Sell Value)
O&M	Operation and Maintenance
ODA	Official Development Assistance
OGM	Operational Guideline Manual
P2T or PPT	Panitia Penyelesaian Tanah (Land Acquisition Committee)
P3CU	Public Private Partnership Central Unit
PALYJA	PT PAM Lyonnaise Jaya
PAM Jaya	Perusahaan Daerah Air Minum Jakarta Raya
PDAM	Perusahaan Daerah Air Minum (public water utility)
PDAB	Perusahaan Daerah Air Bulk
PERPAMSI	Persatuan Perusahaan Air Minum Seluruh Indonesia (Indonesian Drinking Water Enterprises)
Perpres	Presidential Regulation
PH	Public Hydrant
PM	Project Management
PMU	Project Management Unit
PP	Peraturan Pemerintah (Government Regulation)
PPP	Public-private partnership
PQ	Pre-Qualification
PU	Public Works
RENSTRA	Rencana Strategis (Strategic Planning)
RMU	Risk Management Unit
RPJM	Rencana Pembangunan Jangka Menengah (Mid-Term Development Plan)
SERR	Surabaya Eastern Ring Road
SLA	Subsidiary Loan Agreement
SP2LP	Surat Permohonan Penetapan Lokasi Pembangunan (Requesting Letter for Determination of Development Location)
SPAM	Sistem Penyediaan Air Minum (Drinking Water Supply System)
SPC	Special Purpose Company
SSF	Slow Sand Filter (Penyaringan Pasir Lambat)
STEP	Special Terms for Economic Partnership
TPT	Tim Pengadaan Tanah (Land Providing Team)
UFW	Unaccounted For Water
UU	Undang-Undang (Law)
VOC	Vehicle Operation Cost
WTP	Water Treatment Plant

EXECUTIVE SUMMARY

1. Introduction

1.1 Background of the Study

Indonesia's history of public private partnership started back in the 1990s. Since then, there has been three PPP "Era", with different characteristics;

1. Growth Era (1990-1997)
2. Stagnant Era (1998-2004)
3. Policy Development Era (2005-2008)

While overall number of successful PPP projects are still limited, Indonesia has steadily but surely climbed up a learning curve based on the learnings from each era.

1.2 Objectives of the Study

This study has the following three objectives.

1) Review and synthesize current situation and issues surrounding PPP infrastructure development activities
2) Develop recommendations for required technical support to solve issues
3) Screen and list-up high priority PPP infrastructure development projects, which can be catalyzed by Japanese ODA loan, based on "Multi Criteria Analysis"(MCA)

The scope and arrangement of the study is as follows.

- Geography : All of Indonesia
- Sector : Water Supply, Toll Road
- Counterpart : Ministry of Public Work, Cipta Karya (for Water Supply)
  Ministry of Public Work, Bina Marga (for Toll Road)
- Related Agencies : BAPPENAS, CMEA, MOF, BPJT, BPP-SPAM

1.3 Study activities

This study consisted of three sub-team activities and eleven work modules in total. The three sub-teams are:

1) **PPP issues analysis sub-team:** This sub-team reviewed the current situation and issues surrounding overall PPP investment environment in Indonesia. It analyzed the PPP laws and regulations in terms of robustness and consistency. It also synthesized the issues along PPP process. Results of this sub-team are described in chapter2.
2) **Toll road sub-team:** This sub-team worked closely with Bina Marga and BPJT to synthesize current issues surrounding toll road BOT/PPP and screen potential PPP project candidates. Results of this sub-team are described in chapter3.
3) **Water supply sub-team:** This sub-team worked closely with Cipta Karya and BPP-SPAM to synthesize current issues surrounding water supply sector

and screen PPP project candidates. Results of this sub-team are described in chapter4.

Study schedule

Duration of this study was approximately 4months, from end of March2009 to beginning of August2009. A large portion of study time was dedicated to the first stage and second stage screening of PPP project candidates.

1.4 Project Team: This study was conducted by 6 international consultants and 3 local consultants.

- Makoto Ozawa: Team Leader/PPP Expert
- Takao Ninomiya: PPP Legal (in charge of chapter2)
- Mikio Orikasa: Toll Road Planning (in charge of chapter3)
- Takayuki Fujitomi: Environmental & Social Considerations (in charge of chapter3)
- Mitsuhiro Doya: Water Supply Planning (in charge of chapter4)
- Shigemasa Tsuboi: Water Supply Facility Planning (in charge of chapter4)
- Muhammad Saifullah: Toll Road Analyst
- Nani Susanti: Water Supply Analyst
- Shintani Wulandari: PPP Analysis Assistant

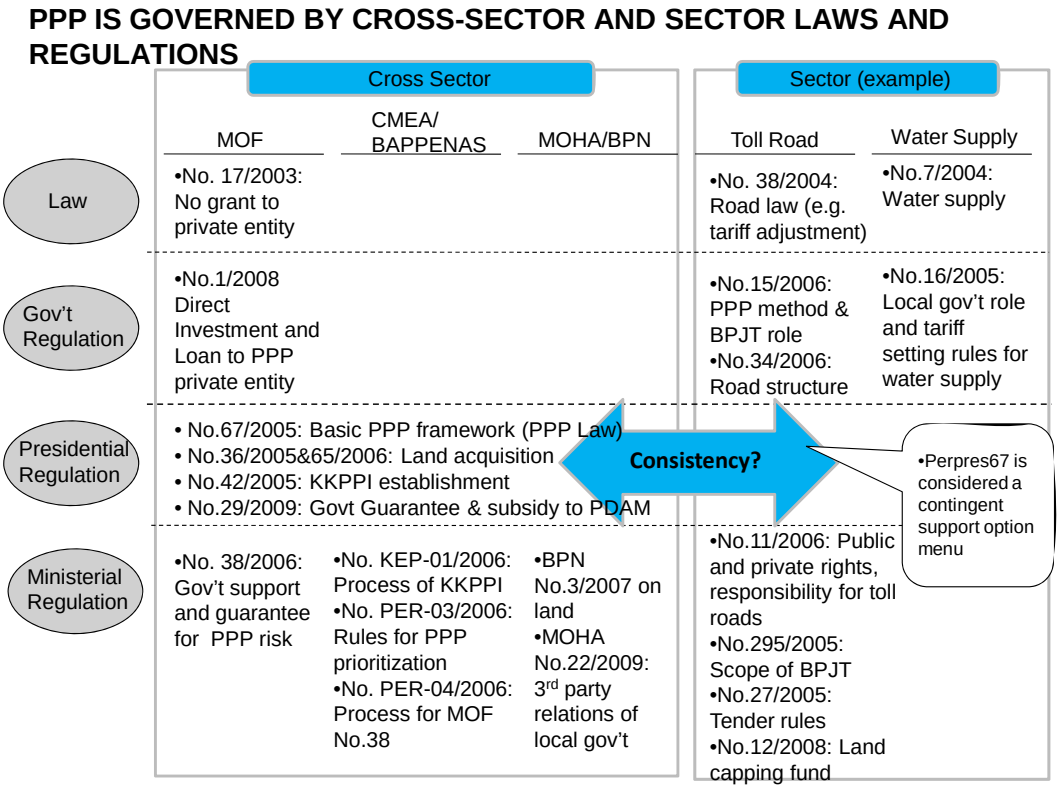
2. Synthesis of current situation and issues regarding PPP projects in Indonesia

2.1 Definition of PPP

In Indonesia, Perpres 67/2005 provides the basic philosophy and definition of PPP. It specifies infrastructure building and management with public and private partnership. The public involves the ministries, ministry organizations, and provinces; at the same time, they operate as contracting agencies. On the other hand, the private involves limited liability companies, state owned enterprises (BUMN), and region owned enterprises (BUMD). This regulation mentions that PPP in the infrastructure projects can be realized through CA. Although it summarizes rights and duties of the public and private, it does not specify the form of PPP.

2.2 Current situation and issues regarding governance

The structure of laws and regulations concerning PPP infrastructure projects in Indonesia is shown in Fig2.2.



Source: PPP study team

Figure 2.2 Overview of PPP laws and regulations

Currently, different processes are adopted by each contracting agencies and local governments, since the process regulated in the Perpres67 (e.g. pre-F/S, F/S, assessment of EIRR/FIRR, request for government support, preparation for tender documents) and the one regulated in sector ministry regulations are not fully synchronized.

Following three key points of refinements should be pursued. 1) Revise Perpres67 including government's responsibility to provide land, and the need to clarify government guarantee and direct support, including decision timeline, in the tender information, 2) Synchronize sector law/regulation with Perpres67, 3) Refine land procurement Perpres36&65 on land negotiation and compensation to increase degrees of freedom

2.3 Current situation and issues on risk management and government support

MOF regulation No.38/2006 defines PPP infrastructure risk as follows:

Political Risk

Financial losses directly caused by government's decisions on policy and regulations. This includes restrictions on FX, money transfer, etc.

Project Performance Risk

Risk related to implementation of project, including land acquisition risk and operational risks

Demand Risk

Risk that demand for infrastructure service is lower than originally forecasted.

On each of these risks, government support is defined as follows.

[Risk and Government Support]

Item	Risk	Government Support
a	Political risk	Compensation can be provided based on prior agreement with private
b	Project performance risk	a. Land acquisition risk 1)Delays in land acquisition Support: concession period extension, other means agreed with MOF 2)Increase in land price Support: concession period extension, bearing a percentage of excess price b. Operational risk 1)Delays in declaring commencement of commercial operation, delays/cancellation in tariff adjustment Support: concession period extension, other compensation agreed with MOF 2)Changes in specification of outputs Support: compensation based on recalculation of production cost
c	Demand risk	a. Actual revenues are lower than minimum total revenue agreed Support: Compensation based on pre-approval by MOF b. Actual revenues are higher than minimum total revenue agreed Support: Government may obtain benefit from excess receipts

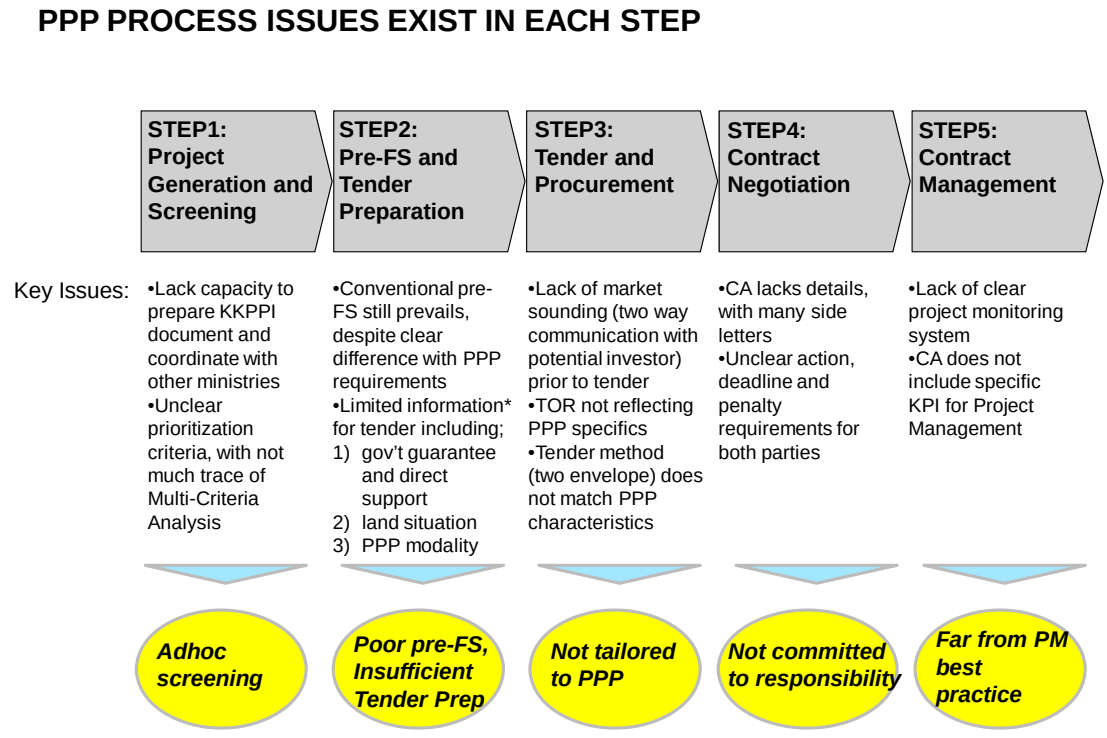
[Criteria for providing government support in risk management]

- Must comply with prevailing Indonesian laws and regulation
- Meet technical and financial feasibility criteria
- Costs and risks may not exceed the capacity limits of the APBN budget
- Provision of government support must fulfill the transparency principle

Issues on risk and government support are the lack of details and transparency. From private investor's point of view, above regulatory description is just not good enough. Detail criteria and approval schedules must be made transparent to attract private participation.

2.4 Current situation and issues regarding PPP process

Summary of PPP process issues are synthesized in Figure2.4.



Source: PPP study team

Figure 2.4 Summary of PPP process issues

3. Toll Road Development Projects

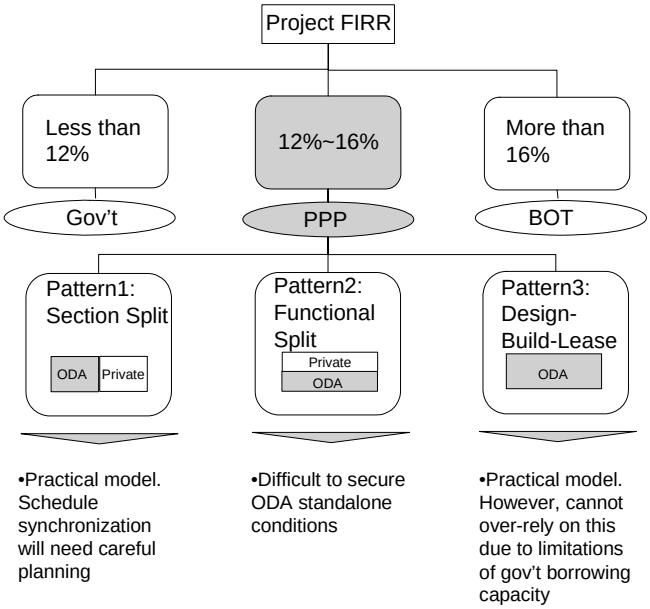
3.1 Toll Road Development Scheme

In 2004, government issued a new policy concerning toll road development in Article 43 (2) of the Road Law 38 /2004. This policy was later regulated by Article 19-23 of the Government Regulation 15 (Toll Road) /2005, which mandated the execution pattern corresponding to the financial viability of the projects.

Today, Bina Marga defines that projects with FIRR less than 12% will be funded by government. Projects with FIRR between 12%~16%, on the other hand, will be considered a PPP project. Projects with FIRR more than 16% will not need public funds and are considered candidates for 100% BOT.

Within PPP, various patterns of modality are possible for toll road development. There are three potential patterns with which to combine with Japanese ODA loan: Pattern1: Section split (or bundle), Pattern2: Functional split, and Pattern3: DBL.

PPP MODALITY, CATALYZED BY ODA

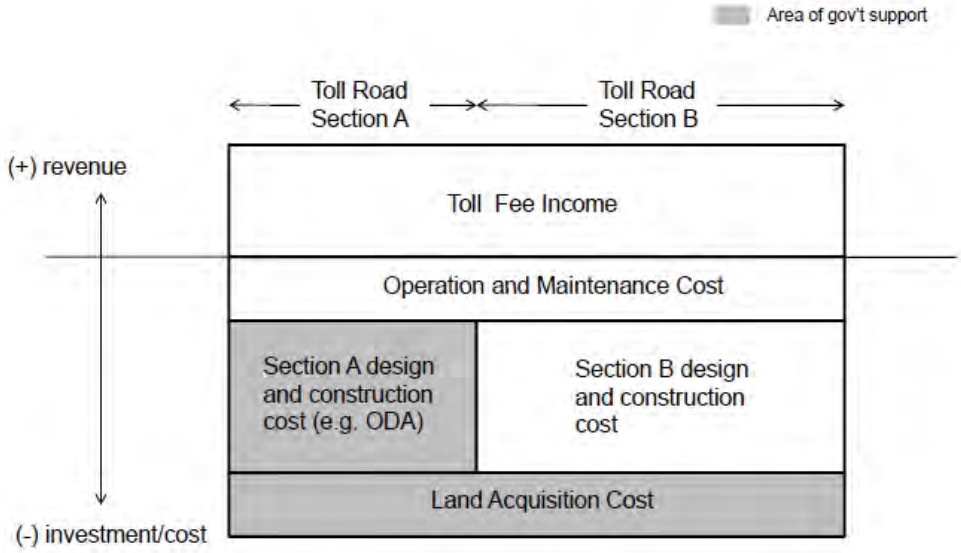


Source: Team Discussion

Figure 3.1-1 PPP Modality Catalyzed by ODA

In this study, details of the section split modality will be looked into.

The concept of the section split PPP scheme is shown in Figure 3.1-2. Land acquisition cost is shared by the Indonesian government, and later on Section A is constructed from public funds. On the other hand, Section B is constructed by the private sector and, will finally turn over the whole section to the private sector to do O&M of the toll road after this is completed.



Source : JICA Study Team

Figure 3.1-2 Toll Road "Section Split" PPP Scheme

3.2 Toll Road Development Issues

Despite government's efforts to promote private participation, progress of toll road BOT/PPP is slow. The observed issues based on this study are the following.

Structurally, much of the sections with high traffic expectations already have CA. Therefore, remaining sections need some form of government guarantee or

direct support. Otherwise, private investors will not show appetite.

Even if a project reaches CA, most toll road projects are not moving forward on schedule due to land acquisition bottlenecks. This is perhaps the most urgent issue to solve. Solution direction must address both negotiation and funding bottlenecks.

Lastly, current CA content is not action binding and both public and private party has not fulfilled their obligation.

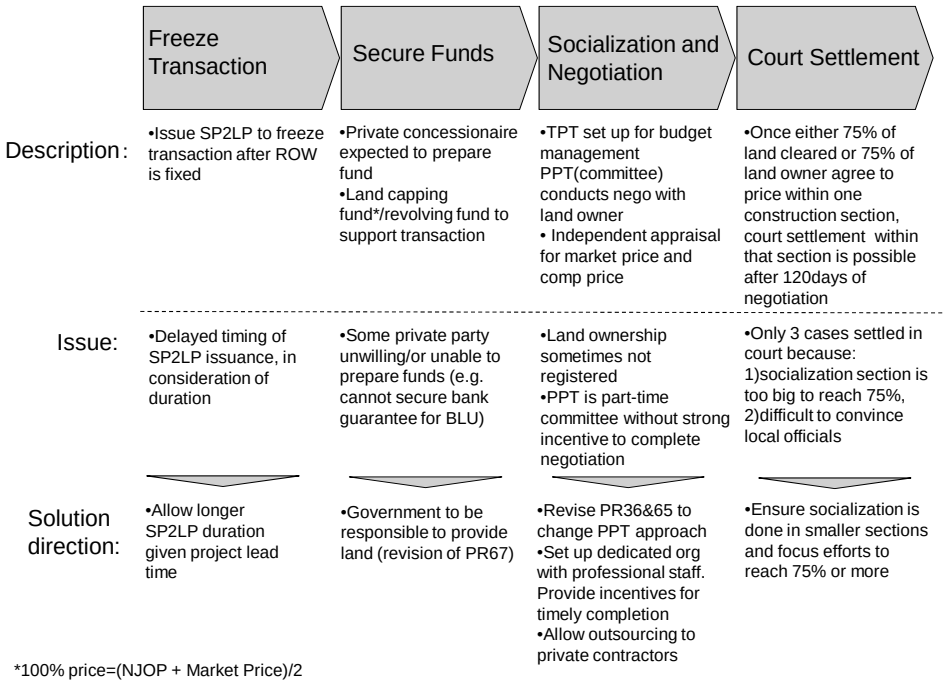
3.3 Land acquisition

We have outlined specific land acquisition issues and directions for solution along acquisition process; freeze transaction, secure funds, socialize/negotiate and court settlement (as last resort). (Figure 3.3)

Funding is one that requires government policy decision. Most investors we interviewed expressed concerns about the requirement for private concessionaire to prepare funds. Solution should include clearly the revision of Perpres 67 to state government's full responsibility to fund and provide land. Alternatively, government could commit to provide land but ask private bidders to reimburse to government as part of tender condition. This will ease government funding requirement but also reduce attractiveness to potential bidders.

Socialization and negotiation requires organization and capability attention. In our view, current PPT committee method is ineffective for three reasons. First, it is a part-time organization. Second, there is no incentive for results. Third, technical skills of committee members are questionable. Socialization and negotiation is a difficult task. Effective organization must fulfill the reverse conditions; 1) full-time dedicated organization, 2) qualified professionals, 3) incentivized for results.

LAND ACQUISITION ISSUES AND SOLUTION DIRECTION



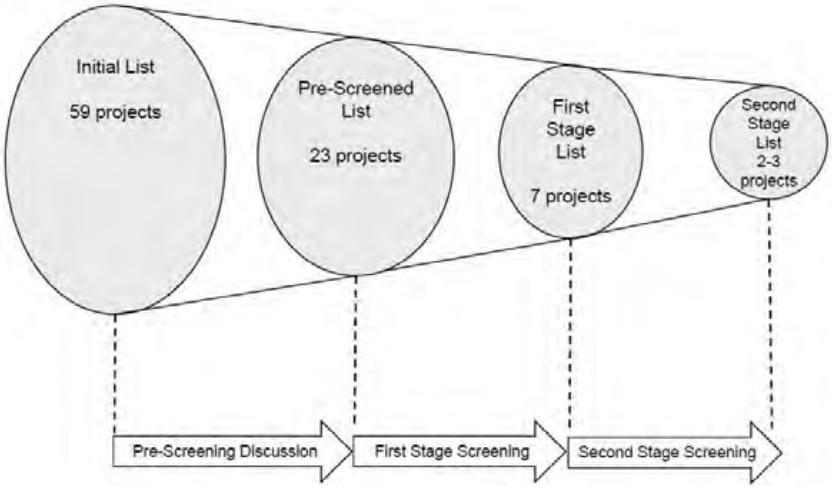
So

urce: team analysis

Figure 3.3 Land acquisition issues

3.4 Project Screening Results

This project started the screening from an initial list of 59 projects and carefully selected 2-3 projects after several rounds of screening. Screening flow is shown in Figure 3.4-1.



Source: JICA Study Team

Figure 3.4-1 Flow of the Screening

First stage screening results are shown in Table 3.4-2. Screening criteria used were FIRR (screen 1), sector priority (screen 2) and route characteristics (screen3).

As a result, 7 projects were screened to enter into second stage screening. Some projects were eliminated in this stage due to lack of length, because this study focuses on section split model.

Table 3.4-2 Results of the First Stage Screening Evaluation

No.	Name of the Project	Screen 1(FIRR)		Screen 2	Screen 3
		FS1	FS 2		
1	Bandara Juanda - Tanjung Perak	13.43 %	15.70 %	★★★★★/★★★★★/★★★★★	★☆
2	Cileunyi - Sumedang- Dawuan	15.64 %	14.12 %	★★★★★/★★★★★/★★★★	★
3	Medan - Kualanamu - Tebing Tinggi	–	11.26 %	★★★★★/★★★★★/★★★★★	
4	Sukabumi - Ciranjang- Padalarang	11.28 %	13.08 %	★★★★★/★★★★★/★★	★
5	Batu Ampar - Mk Kuning - Bandara Hang Nadim	15.03 %	7.78 %	★★★★★/★★★★★/	★★
6	Kamal - Teluk Naga - Batu Ceper	12.89 %	–	★★★★★/★★★★★/★★★	☆
7	Pandaan - Malang	15.20 %	16.09 %	★★★★★/★★★★★/★	
8	Pekanbaru - Kandis - Dumai	15.48 %	9.01 %	★★★★★/★★★★	★★
9	Jogja - Solo	–	16.73 %	★★★★★/★★★★★/	
10	Probolinggo - Banyuwangi	12.39 %	10.63 %	★★★★★/★★★★★/	
11	Bakauheni - Terbanggi Besar	–	–	★★★★★/★★★★★/	
12	Palembang - Indralaya	16.70 %	15.57 %	★★★★★/★★★★	
13	Semarang - Demak	–	10.99 %	★★★★★/★★★★	
14	Manado - Bitung	–	9.66 %	★★★★★/★★★	★
15	Bakauheni - Terbanggi Besar(Tegineneg-Babatan)	13.32 %	15.48 %	★★★★★/★★★	
16	Jogja - Bawen	–	15.13 %	★★★★★/★★★	
17	Terbanggi Besar - Menggala - Pmtg Panggang	5.91 %	–	★★★★★/★★	
18	Kisaran - Tebing Tinggi	5.08 %	–	★★★★★/★★	
19	Bkt Tinggi - Pdg Panjang - Lbk Alung - Padang	–	–	★★★★★/	
	Medan - Binjai	14.95 %	15.98 %	(15.80km)	Eliminated from first stage screening due to lack of sufficient length for section split scheme
	Cilegon - Bojonegara	–	12.05 %	(15.69km)	
	Pasirkoja - Soreang	15.66 %	11.88 %	(9.8km)	
	Serangan - Tanjung Benoa	–	6.93 %	(9.0km)	

Note : "FS1" is the original local F/S, "FS2" is the revised figures by Bina Marga.
Source: JICA Study Team

Multi Criteria Analysis (MCA) was used for the second stage screening. MCA consists of three main factors; Necessity, Profitability and Implementability. The overall result of MCA is shown as the Table 3.4-3. The final score is summed up of weighted scores.

Prior to the candidate project nomination, we updated the latest information regarding implementation policy by BAPPENAS, Bina Marga and BPJT. From the interviews to these stakeholders, we confirmed that “Cileunyi-Dawuan” toll road will be likely be implemented using China fund and “Bandara Juanda – Tg.Perak” toll road will likely be tendered out by “bundle scheme” with Suramadu Brige.

From the final scores and this latest implementation policy by stakeholders, we selected the three highest score projects, (1) Pandaan-Malang (2) Sukabumi-Padalarang and (3) Jogja-Solo as prospective candidates for further feasibility study.

Table 3.4-3 MCA Scoring Result

Category	MCA category	Evaluation contents	Weight	Allocation	Pandaan-Malang	Sukabumi-Padalarang	Bandara Juanda-Tanjung Perak	Pekambaru-Dumai	Batu Ampar-Muka Kuning-Hang Nadim	Cileunyi-Dawuan	Jogja-Solo
Necessity	Social Economic Benefit	EIRR	10.0%	45%	2	3	2	1	2	2	2
					0.20	0.30	0.20	0.10	0.20	0.20	0.20
	Priority of local government	The importance level of the project by regional government	8.0%		2	2	2	3	2	3	2
					0.16	0.16	0.16	0.24	0.16	0.24	0.16
	Importance within sectoral plan	The importance with in sectoral plan	10.0%		2	2	2	3	1	2	2
					0.20	0.20	0.20	0.30	0.10	0.20	0.20
	Contribution to regional economic	Contribution to agriculture and industries (tourism, agriculture, industry, export and regional development plan)	10.0%		1.4	2.0	2.4	2.2	2.2	1.8	1.4
					0.14	0.20	0.24	0.22	0.22	0.18	0.14
	Technical Highlight	Technological Development	7.0%		1	3	3	1	2	3	2
					0.07	0.21	0.21	0.07	0.14	0.21	0.14
Profitability	Financial Viability	FIRR(Project FIRR)	12.0%	25%	3	3	2	1	1	2	3
					0.36	0.36	0.24	0.12	0.12	0.24	0.36
	Demand generation prospects	Past trends of Growtih ratio (GRDP growth rate, Past trends of no. of registered vehicle w/o motorcycle)	8.0%		2.0	1.5	2.0	2.0	2.5	1.5	2.5
					0.16	0.12	0.16	0.16	0.2	0.12	0.2
	Demand Risks	Potential demand risks and uncertainty	5.0%		3	1	2	3	3	3	3
					0.15	0.05	0.10	0.15	0.15	0.15	0.15
Implementability	Uncertainty of Constructionability	Uncertainty of constructionability through existing design	3.0%	30%	2	2	2	2	3	1	2
					0.06	0.06	0.06	0.06	0.09	0.03	0.06
	Readiness for Land Acquisition	Fiscal capacity by local government	4.0%		2	1	2	3	2	1	2
					0.08	0.04	0.08	0.12	0.08	0.04	0.08
		Trace approval (SP2LP)	4.0%		3	2	2	2	2	3	2
					0.12	0.08	0.08	0.08	0.08	0.12	0.08
		Difficulty of land acquisition	4.0%		3	2	1	2	3	3	1
					0.12	0.08	0.04	0.08	0.12	0.12	0.04
	Impact on living environment	Extent of natural impacts(e.g. impact for endangered Species for fauna & flora)	4.0%		3	3	3	2	3	3	2
					0.12	0.12	0.12	0.08	0.12	0.12	0.08
		Extents of social impacts	5.0%		3	1	2	3	3	1	1
					0.15	0.05	0.10	0.15	0.15	0.05	0.05
	Project Type & cost	Appropriateness of private participation in PPP scheme(section split)	6.0%		3	3	2	1	1	3	3
					0.18	0.18	0.12	0.06	0.06	0.18	0.18
					2.27	2.21	2.11	1.99	1.99	2.20	2.12

Source : JICA Study Team

Profiles of the selected candidates are shown in Figure 3.4-4.

PROFILE OF PPP TOLL ROAD SELECTED CANDIDATES

	Length Project Cost	Location & Role of Project	Project Characteristics
Pandaan-Malang	**37km 3,478 bil Rp**	1) A part of section connects between Surabaya and Malang 2) Distribution and tourist route connects Surabaya with Malang and south coast region.	1) Passes through hill/flat area, and affected houses are few. 2) Technical difficulty is low.
Sukabumi-Ciranjang-Padalarang	**64km 5,785 bil Rp**	1) A part of section connects between Jakarta and Bandung via Sukabumi 2) Distribution route to Jakarta 3) Easing traffic jam along the route 4) Alternative route between Jakarta and Bandung	1) Passes through paddy field/hill area, and affected houses are a lot. 2) Reviewing the vertical alignment is necessary. 3) Long span bridge and tunnel will be planned
Jogja - Solo	**41km 2,928 bil Rp**	1) This toll road begin at Solo with connecting Trans Jawa Toll Road and connects to Yogyakarta. 2) Contribute to the tourism of Yogyakarta 3) Contribute to commuters traffic between Solo-Yogyakarta	1) Passes on the most famous granary and this toll road has difficulty to build consensus with agricultural department. 2) Required arrangement is already done to avoid social impact to world heritage (e.g. Prambanan Temple Compounds)

Source: JICA Study Team

Figure 3.4-4 Profile of PPP Toll Road Selected Candidates

3.5 Detailed examination of PPP scheme

The projects selected in the previous section will be implemented by the PPP scheme, which requires further design in the form of PPP feasibility study. Preliminary PPP scheme is described in Figure 3.5-1.

Basically, the public section (ODA section) and private sections need to be defined. This ratio of public and private is a key determinant of SPC FIRR and GOI FIRR. Public section will be developed by GOI under conventional method. Thereafter, this section could be leased to SPC at a certain given lease fee rate, which is a percentage of public section construction cost. This lease fee will also determine SPC FIRR and GOI FIRR. Preliminary simulation results are shown in Table 3.5-2.

EXAMPLE OF FINANCIAL TRANSACTION DESIGN（TOLL ROAD)

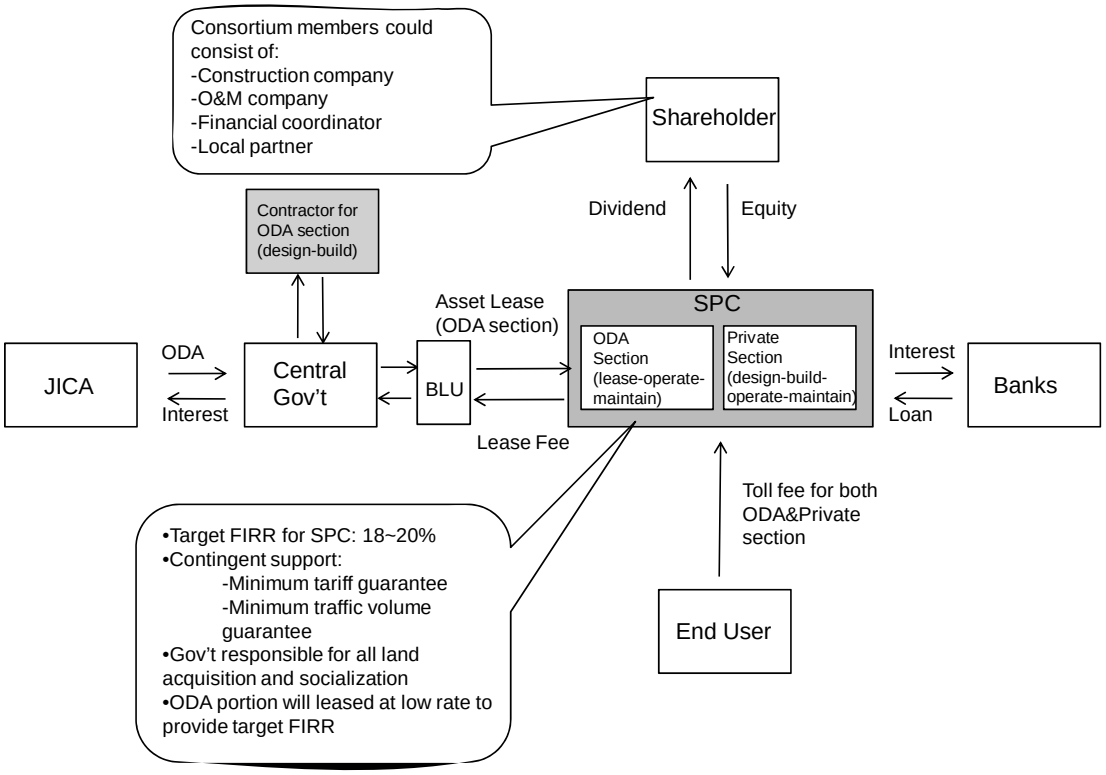


Figure 3.5-1 Example of PPP Scheme financial transaction

Table 3.5-2 Toll Road PPP Candidate Financial Simulation

Sukabumi-Ciranjang-Padalarang
Investment cost: Rp 5,785 billion
Project FIRR 12%

		Public Private Ratio					
		25 : 75		50 : 50		75 : 25	
		SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR
Lease Fee	4%	12.20%	10.40%	13.70%	9.40%	16.60%	8.90%
	2%	12.60%	9.50%	14.80%	8.00%	19.30%	7.10%
	1%	12.80%	9.00%	15.40%	7.20%	20.60%	6.10%
	0%	13.00%	8.50%	15.90%	6.40%	22.00%	5.10%

Pandaan-Malang
Investment cost: Rp 3,478 billion
Project FIRR 13.8%

		Public Private Ratio					
		25 : 75		50 : 50		75 : 25	
		SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR
Lease Fee	4%	15.80%	9.90%	18.30%	9.40%	23.80%	9.10%
	2%	16.20%	9.20%	19.50%	8.20%	26.70%	7.60%
	1%	16.40%	8.80%	20.00%	7.60%	28.20%	6.80%
	0%	16.60%	8.50%	20.60%	6.90%	29.70%	5.90%

Jogja-Solo
Investment cost: Rp 2,928 billion
Project FIRR 12.7%

		Public Private Ratio					
		25 : 75		50 : 50		75 : 25	
		SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR
Lease Fee	4%	14.10%	9.90%	15.80%	9.30%	19.20%	8.90%
	2%	14.40%	9.30%	16.80%	8.30%	21.50%	7.60%
	1%	14.60%	8.90%	17.20%	7.70%	22.80%	6.90%
	0%	14.80%	8.60%	17.70%	7.20%	24.10%	6.20%

Source : JICA Study Team

Based on table above, the optimum condition for both parties (grey area) is

shown. The Pandaan-Malang toll road is an attractive project for both parties. In 50:50 portions, the SPC FIRR and GOI FIRR exceeded the minimum limit. The Sukabumi - Pandalarang toll road needs 75% ODA portion to gain the expected FIRR.

4. PPP-BASED WATER SUPPLY PROJECTS

4.1 Current Situations of Water Supply Projects

It was before 1999 that the central government financed all public utility investments through grants, subsidies, or loans to the regional governments. In 1999 the central government devolved authority for all aspects of local infrastructure and service delivery, including planning, providing, financing, and managing water supply to district and city governments.

The Water Resources Law 7/2004 recognized the possibility of development of drinking water supply systems by cooperation, state-owned enterprises, regional enterprises, private sector enterprises and the communities. In 2005, the President Regulation 67/2005 and the President Regulation 16/2005 were approved. They stipulated private sector participation in water supply services, thereby breaking the monopoly of the PDAMs. The regulations also clarified the roles and responsibilities of regional governments, PDAMs, and private sector.

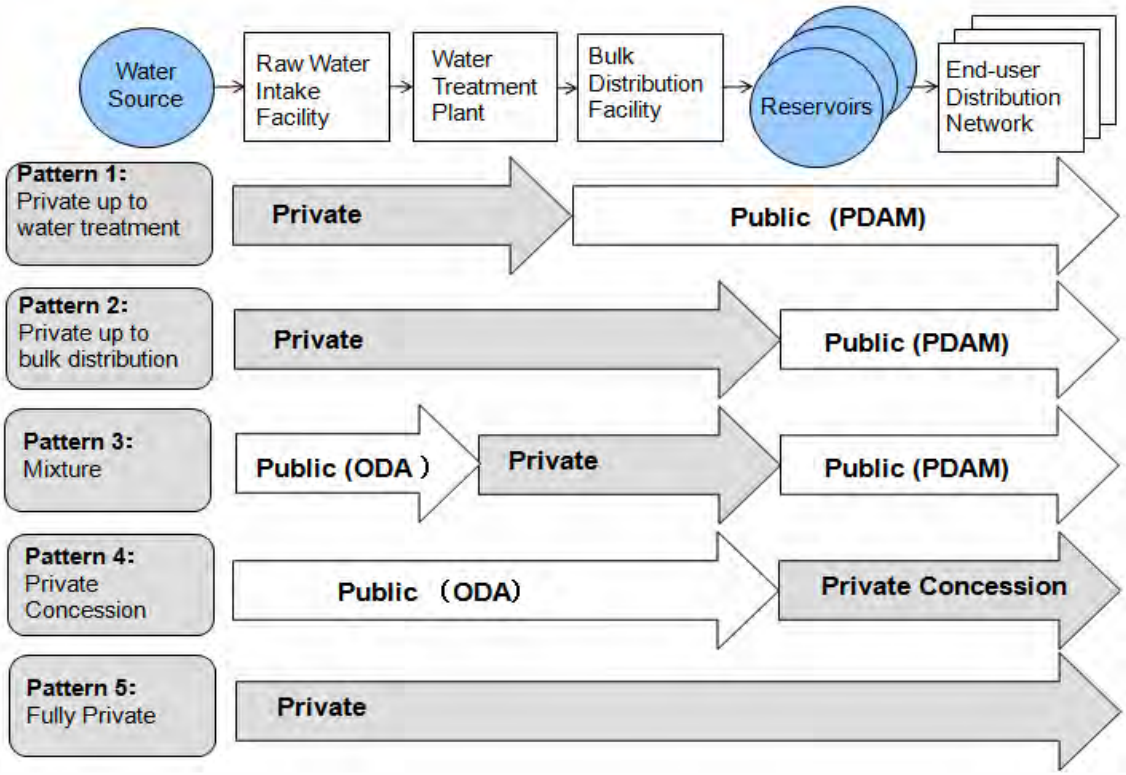
After decentralization, the financing responsibilities for current operation of water supply rested with the PDAMs. However, many of the PDAMs are unable to provide minimum services to consumers and are financially unhealthy due to inadequate tariffs.

There are two main issues affecting Indonesia’s water supply sector, which are (i) low service coverage of water supply, and (ii) financially unsustainable PDAM operation.

Low service coverage of water supply has a major impact on economic development, health, and wellbeing of the population. The Millennium Development Goal (MDG) set targets of the national coverage of adequate water supply at 80% in 2015. However, the achievement in 2004 was merely 55%. In terms of the piped water supply, the MDG are set as 47% in urban areas and 20% in rural areas, while the achievement in 2004 were 33% in urban areas and 7% in rural areas. The Government of Indonesia is requested to accelerate the efforts to achieve the targets.

Many of the PDAMs throughout Indonesia are barely able to provide minimum services to consumers due to their unhealthy financial status. PDAMs are generally limited in size and the revenue collection is low. The lack of cost recovery tariffs is a phenomenon that can be observed at many PDAMs. Because of these difficulties, many PDAMs have reduced or abandoned the O&M and investment activities, which resulted in deteriorating assets and low service coverage. According to the BPP SPAM’s survey in 2007, out of 306 PDAMs nationwide, only 79 (25%) PDAMs were assessed as “healthy”. The others were classified as either “less healthy” or “unhealthy”.

4.2 PPP Modalities



Source: JICA Study Team

Figure 4.2: Examples of PPP Scheme for Water Supply Project

Examples of PPP scheme applicable to water supply projects are shown in Figure 4.2. Water supply is considered as a value chain which starts at water source and ends at distribution to end users. Required facility at the most upstream of the value chain is raw water intake facility. Then needed are water treatment plant, bulk water transmission facility, reservoir, and distribution network. In each of facility or work process, either public or private can partake. Depending on the level of private/public mix and facility of which private/public take care, numerous patterns of PPP are possible.

4.3 Issues in Promoting Water Supply Projects by PPP

First and foremost, it is important to point out issues regarding PDAM's financial sustainability. While some PDAMs are in good financial state, many suffer from high UFW and low tariff levels. This results in lack of funds to increase house connection. It jeopardizes one of Indonesian government's top priority target, which is to increase water supply coverage ratio. Therefore, PPP project to solely increase bulk water capacity is not going to work. The project needs to be "packaged" with means to enhance coverage ratio at the same time.

Also, structurally, it is important to point out that regional autonomy has made it difficult to generate large projects that cut across multiple municipalities. Large projects are essential for PPP because of the scale economy it provides. Therefore, stakeholder coordination (to form project consensus with multiple PDAMs and municipalities) becomes critically important.

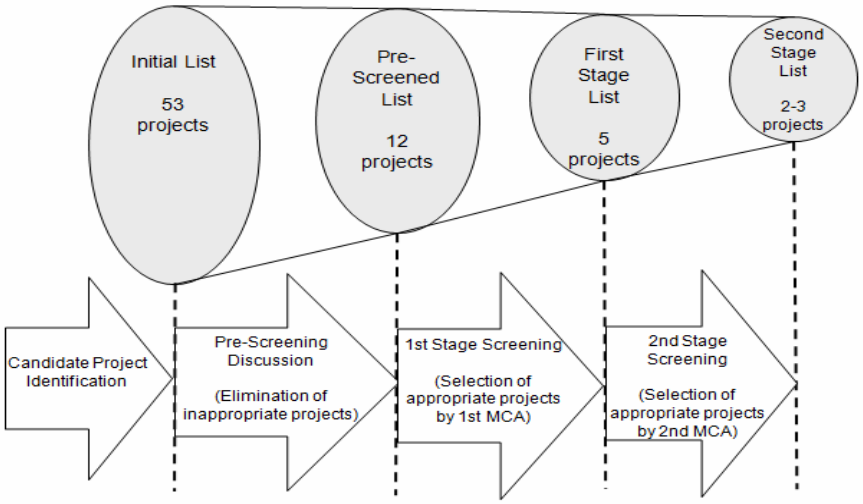
OBSERVED ISSUES OF WATER SUPPLY

Situation	Reason
Many PDAMs have negative profit. This results in lack of funds to increase house connection and rehabilitate distribution. **Implication:** Bulk capacity investment alone will not solve the problem	• **High UFW (30~60%):** Both physical and commercial loss pressures financial profitability • **Tariff below cost：** Inflationary tariff adjustments are not automatic and tariff are kept low. Some municipalities still insist on local parliament approval, despite non-regulatory requirement. • **Issues of PDAM management:** Many PDAMs may not have sufficient management skills • **Lack of funding support:** MOF has rightfully stopped funding to PDAM with arrears. Such PDAM must submit a restructuring plan, which requires central approval. Local gov't also lacks capacity to provide funding support.
Project profit difficult to justify for small municipal size due to lack of scale economy. On the other hand, cross-PDAM projects require stakeholder coordination, which takes time	• **Central and Provincial gov't has limited grip on PDAM:** Municipal gov't (Kota and Kabupaten) has strong authority, which sometimes make cross-PDAM coordination difficult • **PDAM has different tariff levels：** Cross PDAM projects are difficult to arrange because it is difficult to set appropriate bulk tariff levels

Source: Team analysis

Figure 4.3 Summary of water supply issues

4.4 Project Screening Results



Source: JICA Study Team

Figure 4.4-1: Water Supply Project Screening Process

The selection was performed in four steps (Figure 4.4-1). As the first step, we identified 53 water supply projects which appeared on government project information materials. Project scrutiny needs desk-top study of the existing F/S reports and site visits for data confirmation. We did not dare to scrutinize all the 53 projects. This was because our study period in Indonesia was not sufficient to

cover all the projects, and because not all the projects had the F/S report available to us.

Thus, as the pre-screening, we asked CIPTA KARYA to eliminate inappropriate projects out of the 53 identified projects. Consequently 41 projects were rejected and 12 remained. As the first stage screening, we screened 6 projects out of the 12 based on a multi-criteria analysis (MCA). For the selected 6 projects, we deepened the investigation including field visits and performed second stage screening. Finally three projects were selected as the most appropriate project for PPP.

First stage screening was done using the following seven criteria;

1) Unavailability of Alternative Water, 2) Accessibility to raw water resources, 3) Production capacity, 4) Existing tariff level, 5) Industry and commercial water demand, 6) Beneficiary population of retail water, 7) Population growth

The result of the first stage screening is summarized in Table 4.4-2. Six high-ranking projects, in order of score, were (1) Umbulan, (2) JABEKA (Jakarta-Bekasi-Karawang), (3) Pondok Gede, (4) Bandung, (5) Semarang, and (6) Lampung. These projects proceeded to the second stage screening.

Table 4.4-2: Results of First Stage Screening

Criteria	1 Cikarang Water Supply & West Cikarang & Cibitung Bekasi	2 Pondok Gede Water Supply	3 Ciparens Tangerang Water Supply	4 Umbulan Water Supply	5 West Semarang New Water Supply	6 Gresik Water Supply	7 Bogor Water Supply	8 DKI Jakarta-Bekasi-Karawang	9 Bandung Regency	10 West Bandung Alt. II- Water Conveyance	11 East Bandung Alt. II- Water Conveyance	12 City of Bandar Lampung
1) Unavailability of alternative water	**1**	**3**	**1**	**3**	**3**	**1**	**2**	**1**	***2***	***2***	***2***	***2***
2) Accessibility to raw water resources	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	***2***	**3**
3) Production capacity (data, L/sec)	***2***	**1 (330)**	***2***	**3 (4,000)**	**3 (1,050)**	**1 (134)**	**1 (250)**	**3 (15,000)**	***2***	**1 (300)**	***2***	**1 (499)**
4) Existing tariff level (data, Rp./m3)	***2***	***2***	***2***	**2 (2,366)**	***2 (2,402)***	**1 (1,873)**	***3*** **(3,500)**	**2 (2,627)**	**2 (2,154)**	***2***	***2***	***2***
5) Industry and commercial water demand (data, %)	**3 6%>**	**1 <3%**	**3 6%>**	**3 6%>**	**3 6%>**	**3 6%>**	**1 <3%**	**3 6%>**	**3 6%>**	**3 6%>**	**3 6%>**	**3 6%>**
6) Beneficiary population of retail water (data, thousand)	***2***	**2 (540)**	***2***	**3 (2,880)**	**1 (175)**	**1 (108)**	**1 (180)**	***2***	***2***	**1 (102)**	***2***	**2 (581)**
7) Population growth (data, %)	***2***	**3 (3.76)**	***2***	**1 (0.93)**	**2 (1.37)**	***2***	***2***	**3 (4.33)**	**2 (2.10)**	**2 (2.65)**	***2***	**2 (1.04)**
Overall Score	2.15	2.36	2.15	2.58	2.28	1.72	2.00	2.36	2.29	2.00	2.07	2.22
Selected Project		✓		✓	✓			✓	✓			✓

Note: "No data" gets 2points (italicized and underlined).

Source: JICA Study Team

For second stage screening, a total of 14 criteria were selected for the MCA, taking into account the availability of data and practicability of evaluation result. These criteria were grouped into three areas, (i) necessity, (ii) profitability, and (iii) implementability.

The 14 criteria are; 1) Growth of per capita GRDP, 2) Capital cost magnitude in GRDP, 3) Distribution component, 4) Pro-poor consideration, 5) FIRR, 6) EIRR, 7) Capital Cost, 8) Production capacity, 9) Raw water securement, 10) Technical risk/ readiness, 11) Government consensus, 12) PDAM performance, 13) Impact on living environment, 14) Land acquisition

The results of the second stage screening are summarized in Table 4.4-3. The projects were placed in the order of score as Umbulan, Semarang, JABEKA, Lampung, and Bandung. We decided to loyally select the three highest score projects, (1) Umbulan (2) Semarang, and (3) JABEKA as finalist.

Table 4.4-3: MCA Result of Second Stage Screening

Evaluation Criteria		Umbulan	Semarang	DKI Jakarta-Bekasi-Karawang	Bandung Regency	Bandar Lampung
1) Necessity 20%	1.1) Growth of per capita GRDP (Data, %)	2 (14.24)	2 (12.20)	2 (13.20)	3 (23.60)	3 (16.20)
	1.2) Capital cost magnitude in GRDP (Data, %)	2 (1.04)	3 (2.30)	1 (0.96)	2 (1.74)	3 (5.56)
	1.3) Distribution component (Data, %)	3 (36)	3 (44)	1 (0)	2 (29)	2 (20)
	1.4) Pro-poor consideration (Data, %)	2 (18.51)	2 (19.23)	1 -	2 (13.01)	3 (20.98)
	Necessity score	2.25	2.50	1.25	2.25	2.75
2) Profitability 35%	2.1) FIRR (Data, %)	1 (3.8)	1 (0.5)	3 (6.4)	1 (2.4)	1 (0.2)
	2.2) EIRR (Data, %)	3 (27.6)	3 (29.8)	1 (9.6)	2 (19.1)	2 (17.2)
	2.3) Capital cost (Data, Billion Rp.)	3 (2,357)	2 (703)	3 (5,135)	2 (1,049)	1 (581)
	2.4) Production capacity (Data, L/sec)	2 (4,000)	2 (1,050)	3 (15,000)	1 (400)	1 (499)
	Profitability score	2.14	1.86	2.71	1.43	1.14
3) Implementability 45%	3.1) Raw water securement	2	2	2	1	3
	3.2) Technical risk / Readiness	2	2	2	2	2
	3.3) Government consensus	2	3	2	3	3
	3.4) PDAM performance	2.58*	1	1.75**	1	1
	3.5) Impact on living environment	2	2	2	2	1
	3.6) Land acquisition	3	3	3	3	2
	Implementability Score	2.18	2.22	2.08	2.00	2.22
	Overall Score	2.18	2.15	2.14	1.85	1.95

Note: * the point avarage out at the point of 5 PDAMs, (Pasuruan Regency: 1 point, Pasuruan City: 1 point, Sidoarjo: 1point, Surabaya: 3 points, Gresik: 1 point.)

** the point avaraged out at the point of 3 PDAMs (Bekasi: 3 points, Karawang: 3 points, Jakarta: 1point)

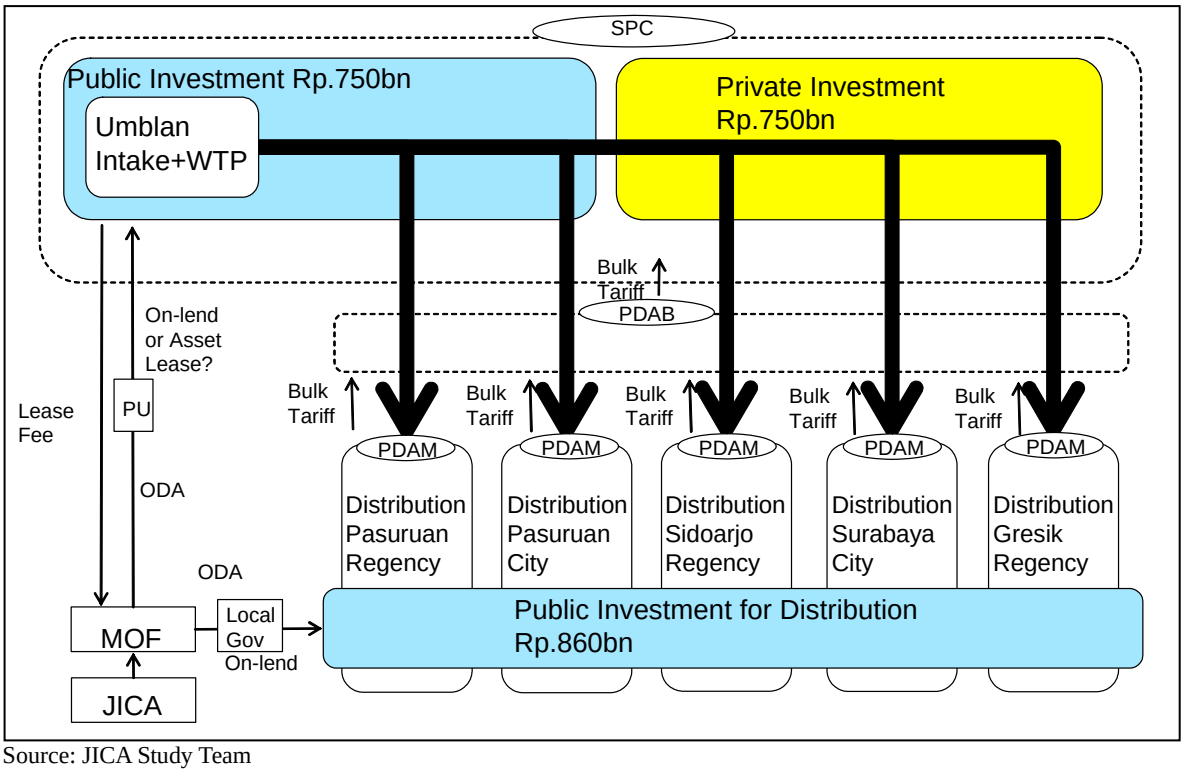
Source: JICA Study Team

4.5 PPP Scheme Proposal

In this section, we propose a potential PPP scheme for each of the selected projects. The proposed schemes are further analyzed for their SPC IRRs to be at an acceptable level for participation of private investors.

A potential PPP scheme we propose for Umbulan project is shown in Figure 4.5-1, followed by one for Semarang project (Figure 4.5-2) and for JABEKA project (Figure 4.5-3)

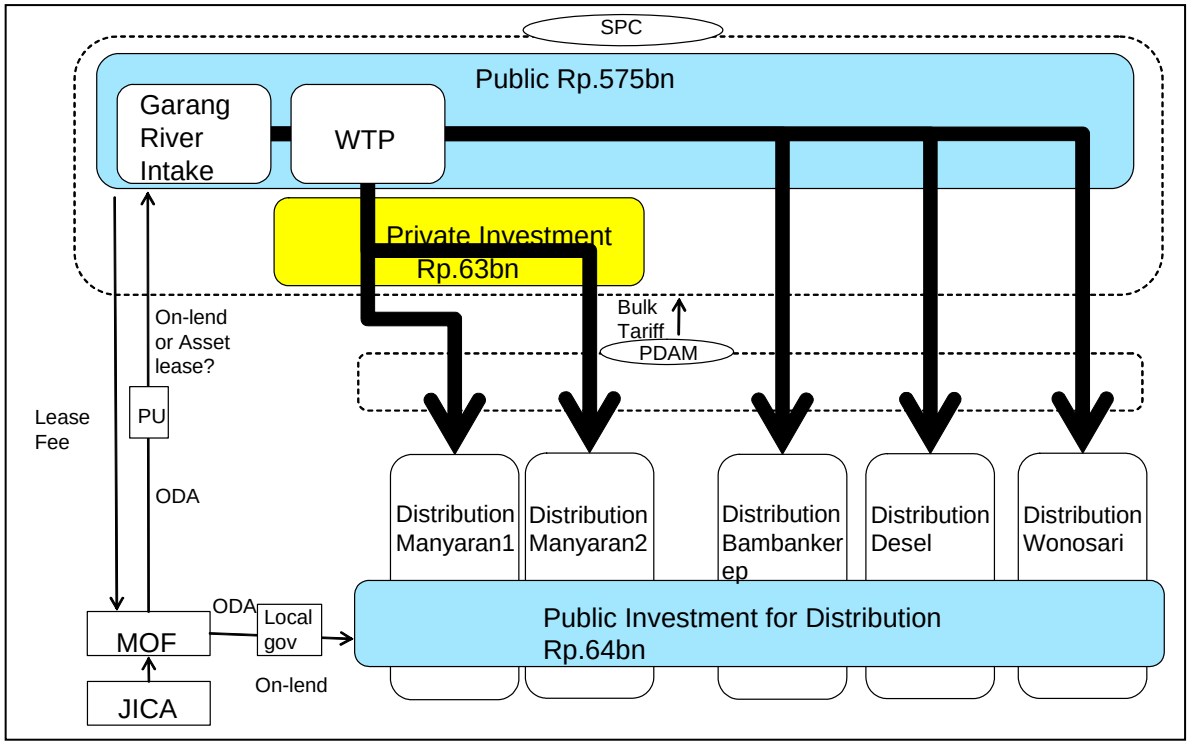
1) Umbuan Project



Source: JICA Study Team

Figure 4.5-1: Umbulan PPP scheme chart

2) Semarang Project



Source: JICA Study Team

Figure 4.5-2: Semarang PPP scheme chart

3) JABEKA Project

Source: JICA Study Team

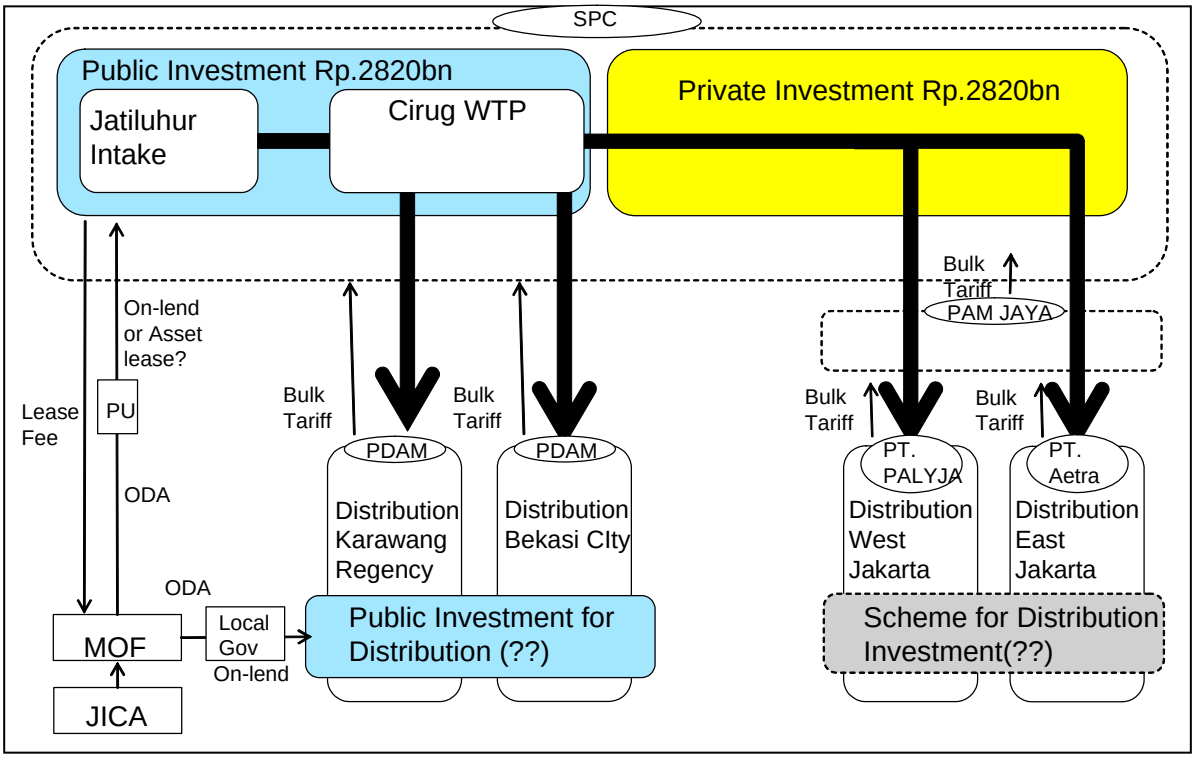


Figure 4.5-3 : JABEKA PPP scheme chart

At the base case of JABEKA project and Umbulan project, the mix of ODA and equity participation is set at 50/50. In case of Semarang project, it is assumed that the private investor will invest in 10% of the bulk water supply operation. The water distribution systems are assumed to be financed by public funds. The lease fee paid to the public (GOI, local governments, or PDAMs) by private (SPC) is set at 4% for Umbulan Project and 3% for Semarang and JABEKA project of the public investment value. This is based on the assumption that the asset built by public fund will be leasable to the SPC for 25 years. The bulk water tariff is set assuming that the bulk water sales are equivalent to the retail revenue minus the distribution O&M cost. The calculation process of SPC IRR also enables calculation of GoI IRR, which means the yield on public fund investment.

Table 4.5-4: GOI IRR and SPC IRR Simulation for Umbulan Project

	Public Private Ratio in Bulk Water Operation					
	25 : 75		50 : 50		75 : 25	
Lease fee	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR
4%	6.4%	15.9%	6.1%	19.3%	6.0%	27.2%
3%	6.0%	16.1%	5.5%	19.9%	5.2%	28.7%
2%	5.5%	16.3%	4.8%	20.5%	4.3%	30.1%
1%	5.1%	16.6%	4.0%	21.1%	3.3%	31.5%
0%	4.6%	16.8%	3.2%	21.7%	2.2%	32.8%
Public/Private ratio in total investment	52 : 48		68 : 32		84 : 16	

Table 4.5-5: GOI IRR and SPC IRR Simulation for Semarang Project

	Public Private Ratio in Bulk Water Operation							
	25 : 75		50 : 50		75 : 25		90 : 10	
Lease fee	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR
4%	7.1%	7.5%	6.4%	8.2%	6.1%	9.9%	6.0%	12.7%
3%	6.2%	7.8%	5.3%	9.2%	4.9%	12.1%	4.7%	17.2%
2%	5.3%	8.2%	4.1%	10.1%	3.5%	14.1%	3.2%	21.3%
1%	4.3%	8.5%	2.7%	10.9%	1.8%	16.0%	1.5%	25.3%
0%	3.2%	8.8%	1.0%	11.7%	-0.2%	17.8%	-0.7%	29.2%
Public/Private ratio in total investment	32 : 68		55 : 45		77 : 23		91 : 9	

Table 4.5-6: GOI IRR and SPC IRR Simulation for JABEKA Project

	Public Private Ratio in Total Investment					
	25 : 75		50 : 50		75 : 25	
Lease fee	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR	GOI FIRR	SPC FIRR
4%	16.0%	14.6%	11.7%	17.7%	9.9%	24.8%
3%	15.3%	14.9%	10.8%	18.3%	8.9%	26.3%
2%	14.6%	15.1%	9.8%	18.9%	7.8%	27.7%
1%	13.9%	15.3%	8.8%	19.5%	6.5%	29.0%
0%	13.1%	15.6%	7.7%	20.1%	5.2%	30.3%

Source: JICA Study Team

Needless to say, further study on PPP scheme will be necessary and above tables are meant to provide examples of how the financial transaction could be designed.

5. Summary of Suggested Next Steps

We would like to make recommendations on what will be the practical next steps following the results of this study.

5.1 Recommendations for overall PPP improvement

We have developed 10 modules of required actions to improve the overall PPP environment. Needless to say, given the numerous initiatives already under way by various institutions, many of these modules are not new and some are almost complete (e.g. revision of Perpres67).

However, we wanted to paint a holistic picture, along the four inter-related layers, to re-assert the needs to make a concerted effort to take actions for improvement.

10 modules are;

1. Accelerate refinements to PPP related regulations: This requires continuous improvements to reflect the practical realities of implementation needs. This study would like to raise three representative examples. 1) Revision of Perpres67: This should clearly state the government's responsibility to provide land. This means initial funding for land should come from government budget.

Also, description of government's contingent support and direct support should be strengthened, especially on approval criteria and schedules. 2) Synchronization between sector law and Perpres67: There are inconsistencies in areas such as tender method. Each sector ministries should see Perpres67 as the basic philosophy for PPP and revise sector law wherever appropriate. 3) Refinements to land procurement Perpres36/2005&65/2006: Socialization and negotiation with land owners is a time consuming task. Regulations should not limit such activities to a PPT/PTP committee structure. Rather, more degrees of freedom should be given to delegate to a dedicated land acquisition organization and/or 3rd party outsourcing.

2. Clarify policy for mix of private and public funds:Not many infrastructure development projects in Indonesia can justify returns for 100% private investment. In this study, which focused on toll road and water supply sectors, we have looked into PPP scheme mixing private and public funds. However, it seems government policies for such scheme are not clear enough. For example, one of approval criteria for contingent support is financial viability. How to measure financial viability for projects mixing private and public funds? Will it be based on project FIRR or SPC FIRR or GOI FIRR? Figure5.1.4-1 describes examples of policy clarification requirements in more detail.

3. Position "OGM" as official guideline: PPP Operations Guideline Manual (OGM) was developed by CMEA. This guideline describes the details of terminologies and concepts surrounding PPP. However, actual usage of this guideline seems to be still low, despite high quality contents. Positioning this OGM as an official guideline, linked to revised Perpres67,should bring up utilization levels.

4. Develop sector-specific and PPP-tailored template: Systems to support contracting agency should be further developed. This is especially true for templates along each PPP step. Several examples can be raised; 1) MCA for PPP project screening requires sector-specific criteria. Also, the evaluation weight for MCA should be tailored to the requirements of each sector. 2) Pre-FS for PPP project requires template to standardize the contents. 3) Tender TOR and tender method requires template to standardize the contents. 4) CA between contracting agency and private investor requires template to ensure sufficient details are agreed

5. Set-up "pre-conditions" for tender: Currently, many PPP projects enter into tender stage despite insufficient tender preparation. Some form of "check list" should be developed to ensure that "pre-conditions" for tender are fulfilled before tender.

6. Change PPT approach for land acquisition: Land acquisition socialization and negotiation is currently under the responsibility of PPT, which is a part-time committee. This PPT approach may not be optimal. For example, much of negotiation activities require dedicated staff that can visit land owners at night. Therefore, a dedicated organization for land acquisition could be considered.

7. Launch advisory committee to support evaluation committee: Evaluation of PPP project proposal requires rich set of knowledge regarding PPP scheme. It

maybe practically difficult to find evaluation committee members with sufficient knowledge, given limited overall PPP experience in Indonesia. Therefore, an adivisory committee, with global standard experience and knowledge, could be considered to support activities of evaluation committee.

8. EnhanceP3CU, P3Node, empowered to review and coach on tender documents and CA: Contracting agencies need on-going expert support. P3CU and P3Node was intended to play such role. However, currently their support is not visible. Measures are required to enhance P3CU and P3Node.

9. Take bold steps to significantly strengthen contracting agency capacity: Most of key PPP steps are under the responsibility of contracting agency. Private investors have expressed concerns regarding contracting agency's capacity, especially in the area of financial expertise, legal expertise and business negotiation. Significant measures are required to uplift capacities in these areas. For example, inject critical mass of new human resources with financial and legal background. Also, hire external experts to provide on-going OJT to contracting agency's staff.

10. Hold cross-ministerial/investor/financier/operator workshops: It is necessary to make continuous efforts to bring up overall PPP stakeholder capacity. One of effective way is to share experiences of actual cases, both success cases and failure cases, between ministries, investors, financiers and operators. Needless to say, it is important to hold such workshops periodically rather than adhoc.

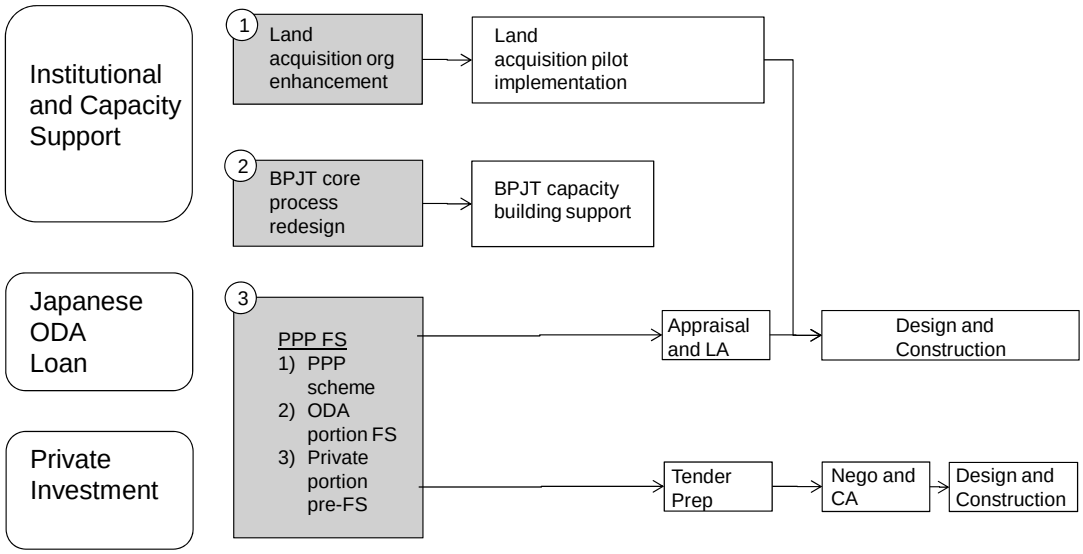
5.2 PPP toll road recommendations for next steps

The study team suggests three parallel modules for immediate next steps.
1) Land acquisition organization enhancement
2) BPJT organization enhancement
3) PPP Feasibility Study

1-2 candidates will be selected from the 4-5 screened candidates described in chapter3. Selected candidate will move forward into PPP FS. However, this alone will not solve land acquisition and BPJT organization issues. Therefore, we recommend parallel efforts to accelerate the development of a successful model case.

Figure5.2-1 describes the ideal roadmap. It describes how organization enhancements to land acquisition and BPJT could lead to capacity building efforts, positioning the selected candidate as a "pilot project".

NEXT STEP ROADMAP FOR PPP TOLL ROAD



Source: team analysis

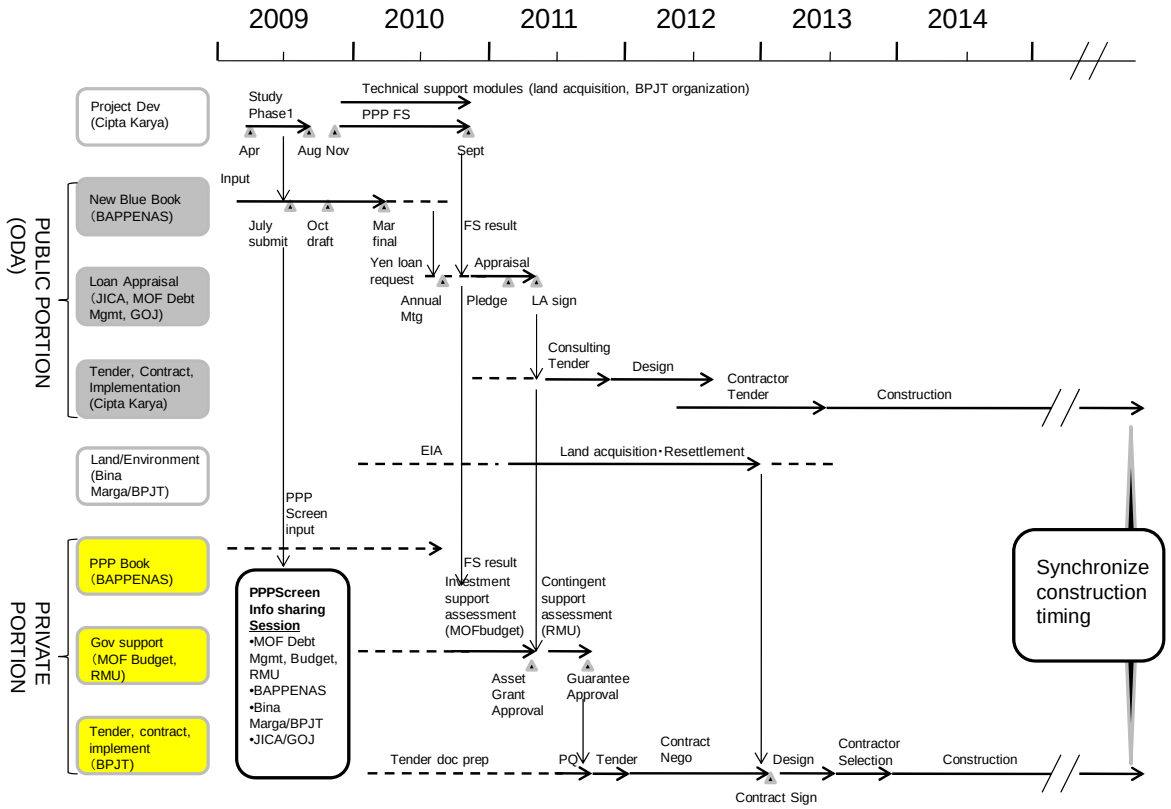
Figure 5.2-1 Next step roadmap for PPP toll road

Schedule timeline for development of toll road PPP project model, based on this study results, is described in Figure5.2-2. It provides a macro holistic view of how next steps modules will feed into the bigger picture. It also describes linkages between public portion (ODA) and private portion.

Key schedules include,
1) Expected timing of Japanese ODA loan agreement: March 2011
2) PPP tender: Second half of 2011
3) Construction commencement: 2013

One important aspect of project scheduling is the synchronization of construction completion timing. This was mentioned repeatedly during our interviews with private investors. In this schedule, we have linked the timing of private tender to be several months after the LA signing. Other milestone linkages should be considered to minimize timing delays, especially on the public portion.

TOLL ROAD "SECTION SPLIT" PPP SCHEDULE



Source: team analysis

Figure 5.2-2 Schedule timeline for toll road

In the following, detail module descriptions for "Land Acquisition Organization Enhancement", "BPJT Core Process Redesign" and "PPP FS (Toll Road)" are provided.

Land Acquisition Organization Enhancement

■ Background

- Land acquisition is one of the largest bottleneck for implementing infrastructure development project in Indonesia
- In toll road sector, there are 22 projects with significant schedule delays mainly due to issues of land acquisition
- Reasons behind delays are 1) lack of funds for land purchase, and 2) slow progress of negotiation with land owners
- In terms of funding, revision of Perpres 67 should specify the government's responsibility to provide funds for land
- On the other hand, negotiation with land owners will likely continue to be an issue because PPT/PTP organizations are not fully effective. It seems there are limitations of a part-time committee organization and lack of expert skills.

■ Objective

- Recommend dedicated land acquisition organization that can be practically implemented in Indonesia. To do this, benchmark overseas land acquisition organizations and best practice
- Reach consensus on specific actions to establish such dedicated land acquisition organization by coordinating stakeholder discussions. Agree to start a pilot testing of new organization by actual socialization and negotiation activities for a selected PPP toll road project

■ **Expected Impact**

- Organization to acquire land according to planned schedule will be ready to operate along ROW of selected PPP toll road project. Attract private investor's attention by explaining government's commitment to operate a credible dedicated organization.
- Acceleration of other pending toll road projects (e.g. 22 projects with signed CA)

■ **Activity**

- Research overseas organization cases and synthesize best practice. Focus on negotiation process techniques, organization responsibility, authority, incentives, skills and other factors.
- Synthesize current situation of PPT/PTP activities in Indonesia
- Design new dedicated organization
- Hold stakeholder workshops and discuss specific roadmaps for organization establishment, including launching a pilot program for selected PPP project

■ **Required resource**

- A dedicated team of 3-4 full-time experts. Duration 8~10 months
- Organization change expert, organization design expert, land acquisition expert, etc.

BPJT Core Process Redesign

■ Background

- Lack of BPJT capacity to fulfill contracting agency role is one of the key issues regarding PPP toll road project implementation
- This issue is not just about each individual staff's capacity. It is more about lack of institutional systems and organizational mechanisms to implement PPP core processes.
- More specifically, a fundamental review of key organizational elements such as system, staff, structure and skills are necessary.

■ Objective

- Redesign BPJT organization along PPP core processes
- Recommend new BPJT organization and communicate with relevant stakeholders. Agree to roadmap for organizational change.

■ Expected Impact

- PPP toll road project's tender preparation, tender and procurement, contract negotiation and contract management will be implemented under a new and renovated BPJT organization. This will significantly increase the chances of successful project implementation.

■ Activity

- Analyze BPJT current organization and synthesize organizational issues
- Redesign organization along PPP core process(job descriptions, required skills, number of staff etc.); 1)Project generation and screening, 2)Pre-FS and tender preparation, 3)Tender and procurement, 4)Contract negotiation, 5)Contract management
- Analyze new organizational structure and inter-relationships
- Develop several options for new BPJT organization
- Hold stakeholder workshops, select new organization option and agree to roadmap for change

■ Required Resource

- A dedicated team of 5-6full-time experts. Duration 8~10months
- Organization change expert, organization design expert, PPP expert, PPP operations expert (especially tender and procurement, contract negotiation), toll road expert

PPP FS (Toll Road)

■ Background

- PPP project for toll road has been discussed and planned for project sections with FIRR ranging between 12%~16%
- Based on comprehensive screening, section AB has been selected as potentially attractive candidate for PPP model case, using the "Section Split" scheme
- Successful implementation hinges on high quality PPP feasibility study, which is different from traditional infrastructure project feasibility study on the following aspects;
    1. Detail design of PPP scheme is required to define the public section funded by ODA and private section funded by private investors. Also, principles of government support and risk allocation must be defined. In addition, synchronization measures of public and private section schedules must be planned upfront
    2. For public section, FS will be done based on ODA guidelines. For private section, pre-FS will be done to develop an "information package" for potential private investors. This information package is not meant to guarantee accuracy of information but needs to be credible enough for investors to make a business judgment on tender participation
    3. PPP stakeholder coordination is much more complex than traditional projects. Coordination on areas such as funding, contingent support, direct support, land acquisition must take place during the course of PPP FS

■ Objective

- Design details of PPP scheme based on "Section Split" methodology and clarify the roles of public and private parties
- Conduct FS for public section based on ODA guidelines
- Conduct pre-FS for private section
- Reach consensus between PPP stakeholders on PPP scheme as well as roles of each party and roadmap for implementation

■ Expected Impact

- Sufficient facts and analysis are prepared and shared with PPP stakeholders to truly generate momentum towards implementation; 1) sufficient information to enter into ODA loan appraisal, 2) sufficient tender preparation to enter into tender and procurement of private investors, 3) principle approvals for required government support obtained

■ Activity

- Detail design of PPP scheme:

1. Define public section and private section, taking into account ODA standalone conditions and technical difficulties
2. Confirm accounting transaction for public section
3. Financial analysis of three viewpoints(PJT FIRR, SPC FIRR, GOI FIRR)
4. Confirm conditions for positive VfM
5. Design details of contingent support (Tariff, Volume)
6. Plan for synchronization of public and private section schedules

- Conduct FS for public section based on ODA guidelines
    1. Technical feasibility analysis
    2. Detail financial analysis
    3. Environment and social consideration analysis
- Conduct pre-FS for private section
    1. Preliminary assessment of technical, financial, environment and social considerations for private section (not as deep as public section)
    2. Development of "information package" for potential private investors
    3. Tender qualifications for private party(eliminate unnecessary barriers)
    4. Detail design of tender method
    5. Clarification of tender conditions
    6. Define principles of risk allocation
    7. Develop draft concession agreement
- Coordinate with PPP stakeholders (primarily work with BPJT, which will be the contracting agency)
    1. Coordination with Bina Marga on overall planning
    2. Documentation support for KKPPI registration
    3. Documentation and communication support with MOF RMU (contingent support), coordination on direct support and land acquisition budget with MOF Budget
    4. Coordination with BAPPENAS on Blue Book and PPP Book

■ **Required Resource**

- A dedicated team of 10 full-time experts. Duration 10months
- Overall PPP expert, PPP financial analysis expert, PPP operations expert, PPP legal expert, PPP investor relations expert, toll road planning expert, toll road technical expert, toll road O&M expert, land acquisition expert, environment and social consideration expert

5.3 PPP water supply recommendations for next steps

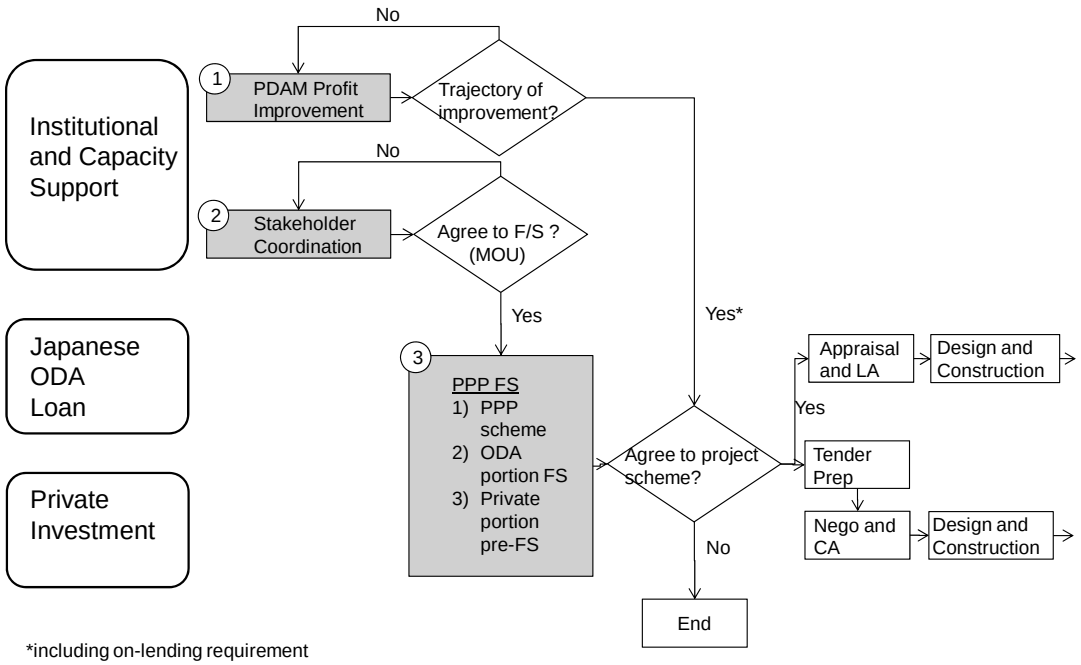
The study team suggests three parallel modules for immediate next steps.

1) PDAM profit improvement program
2) Stakeholder coordination
3) PPP Feasibility Study

1-2 candidates could be selected from the 3 screened candidates described in chapter4. Selected candidate will move forward into PPP FS. However, this alone will not ensure solutions to PDAM financial sustainability and stakeholder consensus. Therefore, we recommend parallel efforts to accelerate the development of a successful model case.

Importantly, milestones should be set to decide "go or no go" for the project to proceed. Two key milestones are; 1) Trajectory of PDAM profit improvement as a result of PDAM profit improvement program, 2) Stakeholder consensus of PPP scheme, ideally in the form of signed MOU, as a result of stakeholder coordination effort.

NEXT STEP ROADMAP FOR PPP WATER SUPPLY



Source: team analysis

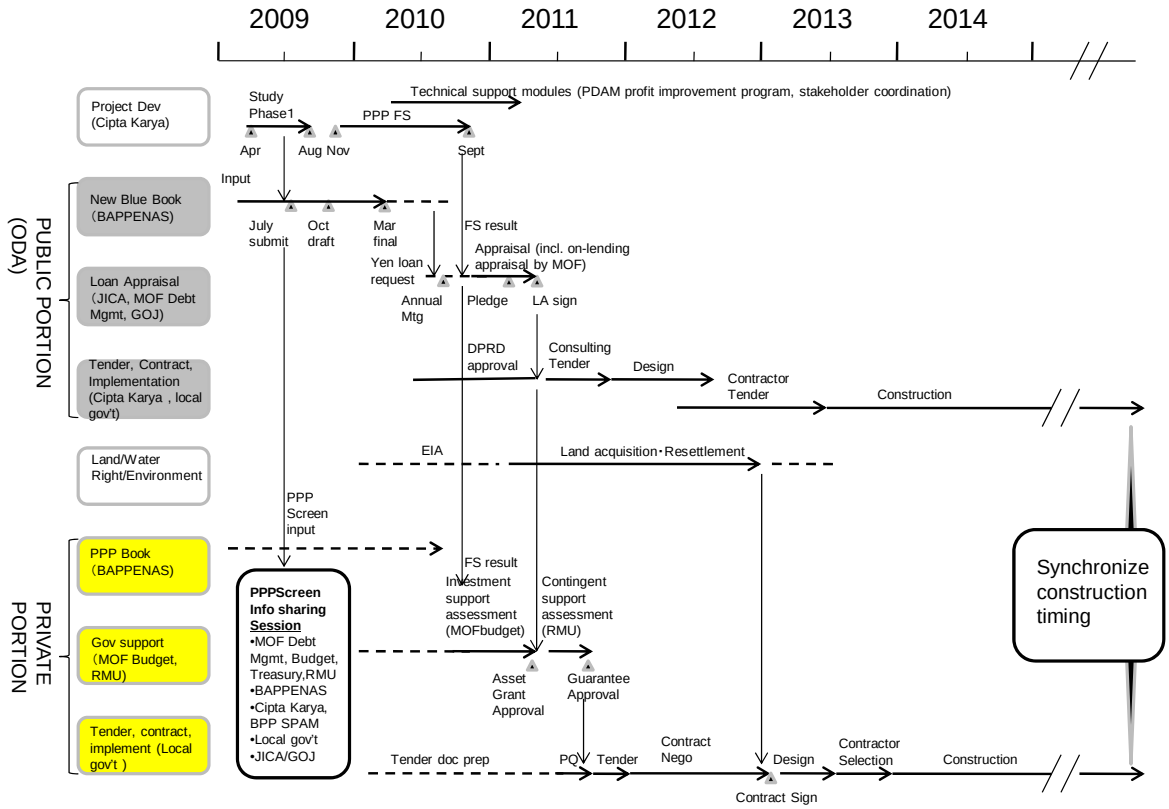
Figure 5.3-1 Next step roadmap

Schedule timeline for development of water supply PPP project model, based on this study result, is described in Figure5.3.5. It provides a macro holistic view of how next steps modules will feed into the bigger picture. It also describes linkages between public portion (ODA) and private portion.

Key schedules include,
1) Expected timing of Japanese ODA loan agreement: March 2011
2) PPP tender: Second half of 2011
3) Construction commencement: 2013

Needless to say, this schedule is tentative and subject to change. Trajectory of PDAM profitability improvement and stakeholder consensus must be fulfilled before LA or PPP tender could start.

WATER SUPPLY PPP SCHEDULE



Source: team analysis.

Figure 5.3-2 Schedule timeline for water supply

In the following, detail module descriptions for "PDAM profit improvement" and "PPP FS (Water Supply)" are provided.

PDAM Profit Improvement Program

■ Background

- Private investors have indicated that the largest risk factor for PPP water supply project is PDAM's payment risk. In fact, many PDAMs in Indonesia suffer from financial difficulty and record negative profits.
- To cope with this situation, MOF has recently initiated a program to support the financial turnaround of PDAMs. PDAMs willing to join this program must submit a credible turnaround plan, which is reviewed and approved by MOF.
- In the packaged PPP scheme, funds for additional house connection shall come from ODA on-lending to local government. MOF's approval of turnaround plan is a pre-requisite for ODA on-lending appraisal by MOF.
- Therefore, profit improvement trajectory of PDAM within PPP project territory will be a necessary condition for PPP project implementation

■ Objective

- Target negative profit PDAM within PPP project territory

- Pull improvement levers such as UFW reduction, operation cost reduction and water tariff optimization. Demonstrate clear improvement trajectory towards annual positive profit. Then, develop organization mechanisms to sustain continuous improvements and strengthen management capacity
- In addition, develop clear plans for house connection coverage improvement, including a stock-take of existing distribution network, rehabilitation and coverage increase plan by sub-districts and financial plans

■ **Expected Impact**

- Provide credible profit improvement status information to potential private investors and attract interest towards PPP water supply project investment
- Ensure conditions to clear MOF's appraisal for on-lending to local government (which will further channel finds to PDAM)

■ **Activity**

- Diagnosis phase (3months), Solution phase (3months), Pilot implementation phase (6~12months)
- Diagnosis phase will extract improvement levers by analyzing each factor of profit equation in terms of comparison with other PDAMs, time trends and benchmarking. Thereafter, conduct interviews and workshops to analyze root cause.
- Solution phase will develop specific actions to tackle root causes of poor profitability and uplift financial performance. In addition, recommend organization mechanisms to sustain improvement activities on an on-going basis and reach consensus to start pilot implementation
- Pilot implementation phase will select specific sub-district and improvement theme and support 2-3 implementation activities. It is important to set quantitative improvement target and timing of achievement. Then, install periodic monitoring system to track results. This improvement activity itself should be designed so that sustainable organization mechanisms and capacity building will be achieved simultaneously. Specific improvement themes will differ by PDAM characteristics. Concrete themes should be selected. For example, "30% reduction of UFW physical loss in sub-district A".

■ **Required resource**

- A dedicated team of 3-4 full-time experts per PDAM. Duration 12-18months.
- Management turnaround expert, Water supply operations improvement expert (especially UFW reduction), Financial analysis expert, etc.

PPP FS (Water Supply)

■ Background

- PPP project for water supply has been discussed and planned in Indonesia with limited success thus far
- This is because water supply projects require solutions to both bulk capacity investment as well as distribution investments simultaneously, requiring a complex project scheme
- Based on comprehensive screening, project XY has been selected as potentially attractive candidate for PPP model case, using a packaged water supply scheme for both bulk and distribution
- Successful implementation hinges on high quality PPP feasibility study, which is different from traditional infrastructure project feasibility study on the following aspects;

    1) Detail design of PPP scheme is required to define the public section funded by ODA and private section funded by private investors. Also, principles of government support and risk allocation must be defined. In addition, synchronization measures of public and private section schedules must be planned upfront

    2) For public section, FS will be done based on ODA guidelines. For private section, pre-FS will be done to develop an "information package" for potential private investors. This information package is not meant to guarantee accuracy of information but needs to be credible enough for investors to make a business judgment on tender participation

    3) PPP stakeholder coordination is much more complex than traditional projects. Coordination on areas such as funding, contingent support, direct support, land acquisition, on-lending requirements must take place during the course of PPP FS

■ Objective

- Design details of PPP scheme based on a packaged water supply scheme for both bulk and distribution
- Conduct FS for public section based on ODA guidelines, including assessment of on-lending possibility for distribution
- Conduct pre-FS for private section
- Reach consensus between PPP stakeholders on PPP scheme as well as roles of each party and roadmap for implementation

■ Expected Impact

- Sufficient facts and analysis are prepared and shared with PPP stakeholders to truly generate momentum towards implementation; 1) sufficient information to enter into ODA loan appraisal, 2) sufficient tender preparation to enter into tender and procurement of private investors, 3) principle approvals for required government support obtained

■ Activity

- Detail design of PPP scheme:
  1) Define public section and private section, taking into account ODA standalone conditions, technical difficulties and funding for both bulk and distribution
  2) Confirm accounting transaction for public section covering both bulk fund channeling as well as distribution fund channeling which will most likely be on-lending to local government
  3) Financial analysis of three viewpoints (PJT FIRR, SPC FIRR, GOI FIRR)
  4) Confirm conditions for positive VfM
  5) Design details of contingent support (Tariff, Volume)
  6) Plan for synchronization of public and private section schedules

- Conduct FS for public section based on ODA guidelines
  1) Technical feasibility analysis
  2) Detail financial analysis
  3) Environment and social consideration analysis

- Conduct pre-FS for private section
  1) Preliminary assessment of technical, financial, environment and social considerations for private section (not as deep as public section)
  2) Development of "information package" for potential private investors
  3) Tender qualifications for private party(eliminate unnecessary barriers)
  4) Detail design of tender method
  5) Clarification of tender conditions
  6) Define principles of risk allocation
  7) Develop draft concession agreement

- Coordinate with PPP stakeholders (primarily work with the contracting agency)
  1) Coordination with Cipta Karya on overall planning
  2) Coordination with provincial government, municipal governments and PDAMs, including local government's role as regulator and on mechanisms to monitor the performance of SPC operations
  3) Documentation support for KKPPI registration
  4) Documentation and communication support with MOF RMU (contingent support), coordination on direct support and land acquisition budget with MOF Budget, coordination on on-lending criteria with MOF Treasury
  5) Coordination with BAPPENAS on Blue Book and PPP Book

■ Required Resource

- A dedicated team of 10 full-time experts. Duration 12 months
- Overall PPP expert, PPP financial analysis expert, PPP operations expert, PPP legal expert, PPP investor relations expert, water supply planning expert, water supply bulk facility technical expert, water supply transmission pipe technical expert, water supply distribution expert, environment and social consideration expert

CHAPTER-1 INTRODUCTION

1.1 Background of the Study

Indonesia's history of public private partnership started back in the 1990s. Since then, there has been three PPP "Era", with different characteristics;

1. Growth Era (1990-1997)

2. Stagnant Era (1998-2004)

3. Policy Development Era (2005-2008)

While overall number of successful PPP projects are still limited, Indonesia has steadily but surely climbed up a learning curve based on the learnings from each era. (Figure1.1)

1.1.1 Growth Era (1990-1997)

From early 1990 to 1997, Indonesia's infrastructure investment has maintained healthy levels of approximately 6-7% of GDP. PPP project related investments were also active exceeding $20 billion in total. These investments were made mostly in energy ($10billion), telecommunications ($80billion) and transportation ($20billion).

This era is characterized by the growth achieved under Soeharto government. Investments were active but under limited PPP laws and regulation. Therefore, it has left behind massive amounts of unclear contracts, some of which led to lengthy legal disputes later on between public and private. This experience has helped to build awareness on the necessity to strengthen governance with regards to PPP projects.

1.1.2 Stagnant Era (1998-2004)

Asian currency crisis (end of 1997) has triggered infrastructure investments to decrease significantly between 1998-2004. On average, only 2-3% of GDP were spent on basic infrastructure development. Political instability has exacerbated the situation and Indonesia has lagged behind neighboring countries such as Thailand and Malaysia in terms of economic growth.

Notably, during this period, BAPPENAS has undertaken studies on PPP and initiated a fundamental review of the laws and regulations. However, the country had to deal with urgent topics (e.g. restructuring of financial sector) and initiatives on PPP did not receive much spotlight. All in all, the government was taking a "wait and see" posture. With the private investors under restructuring mode, there were hardly any PPP infrastructure projects in this era. In return, government has started to realize the need to be much more proactive in promoting PPP.

1.1.3 Policy Development Era (2005-2008)

Under the new SBY government, action programs to improve investment environment has taken place. In January 2005, "infrastructure summit" has held

inviting more than 1000 government officials and private investors. Much of the key PPP related regulations were issued, including Pepres67 on PPP and Perpres42 on KKPPI. Country's mid-term development plan (2005-2009) set targets to attract more than 50% of infrastructure development from private investment.

However, despite proactive efforts, generation and implementation of PPP projects were rather slow. According to private investors, content and schedule of government support is not clear enough and government's capacity to handle complex PPP projects needs improvement.

1.1.4 New Era (2009-)

2009 is the year of election in Indonesia. Under the new government, what will the next era look like for PPP? Will it take a step back into the stagnant era or move forward into an era of accelerated PPP implementation?

Worldwide economic downturn, which started end of 2008, has cast shadows on overall economic outlook in Indonesia. However, all the more, infrastructure development in this country needs urgent attention.

Source: ICR

Figure 1.1 PPP Era in Indonesia

1.2 Objectives of the Study

This study has the following three objectives.

1) Review and synthesize current situation and issues surrounding PPP infrastructure development activities

2) Develop recommendations for required technical support to solve issues

3)Screen and list-up high priority PPP infrastructure development projects, which can be catalyzed by Japanese ODA loan, based on "Multi Criteria Analysis"(MCA)

The scope and arrangement of the study is as follows.

- Geography: All of Indonesia
- Sector: Water Supply, Toll Road
- Counterpart: Ministry of Public Work, Cipta Karya (for Water Supply)

  Ministry of Public Work, Bina Marga (for Toll Road)
- Related Agencies: BAPPENAS, CMEA, MOF, BPJT, BPP-SPAM

One important aspect of the study is to develop PPP scheme, in which Japanese ODA loan plays a catalyst role to lift up private investor's return. This is required due to several reasons.

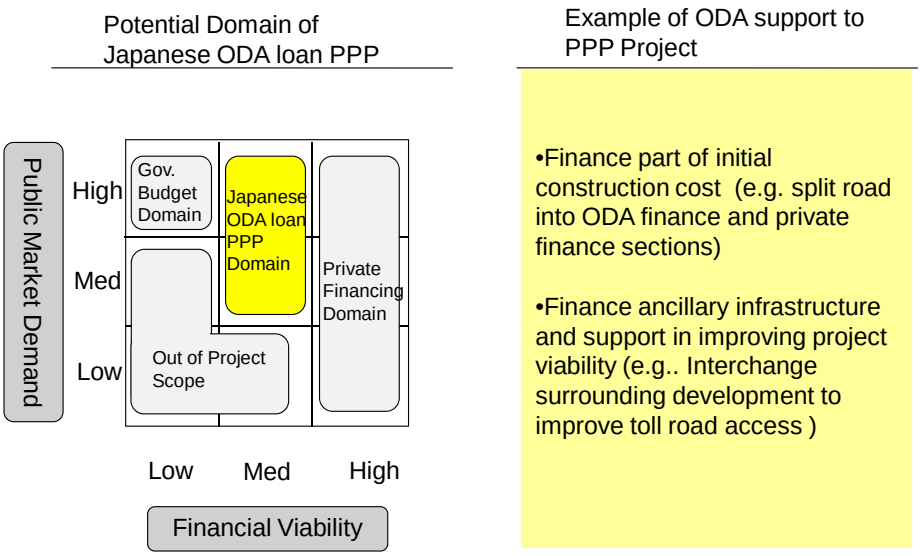
First of all, in general, hurdle for private investment into public infrastructure development is high. This is especially true if we are asking the private investor to take revenue risk. Even in other countries, results of PPP infrastructure development is mixed, due to the inherent complexity and risks involved.

Second, in Indonesia, investment environment still requires continuous improvement. For example, in the eyes of private investor, government's guarantee and direct support is not clear enough. This will be described later in Chapter2.

Third, for both toll road and water supply sectors, the potential project returns are simply not high enough to justify 100% private investment without government support. For toll road, the so called "cream" sections with high potential traffic flows have mostly been taken by past tender processes. For water supply, current tariff levels are not enough (some below cost levels). This will be described later in Chapter3 and 4, respectively.

Therefore, our study will focus on projects with mid-high public demand but mid-level FIRR. Public portion, funded by ODA, will act as a means to attract private investment. (Figure 1.2)

INTEGRATION OF JAPANESE ODA LOAN AND PPP SCHEME



Source: ICR.

Figure 1.2 Integration of Japanese ODA Loan and PPP Scheme

1.3 Study activities

1.3.1 Study team and work modules

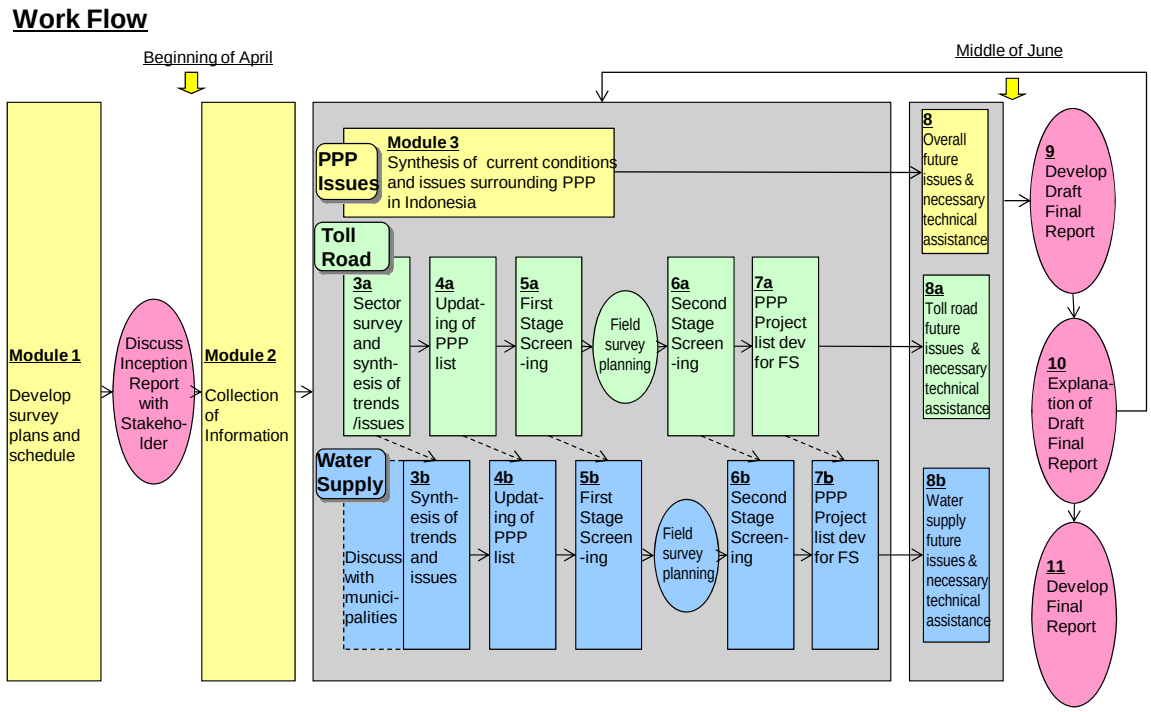
This study consisted of three sub-team activities and eleven work modules in total. (Figure1.3.1) The three sub-teams are:

1) **PPP issues analysis sub-team:** This sub-team reviewed the current situation and issues surrounding overall PPP investment environment in Indonesia. It analyzed the PPP laws and regulations in terms of robustness and consistency. It also synthesized the issues along PPP process. Results of this sub-team are described in chapter2.

2) **Toll road sub-team:** This sub-team worked closely with Bina Marga and BPJT to synthesize current issues surrounding toll road BOT/PPP and screen potential PPP project candidates. Results of this sub-team are described in chapter3.

3) **Water supply sub-team:** This sub-team worked closely with Cipta Karya and BPP-SPAM to synthesize current issues surrounding water supply sector and screen PPP project candidates. Results of this sub-team are described in chapter4.

STUDY ACTIVITY : 3SUB-TEAMS AND 11 MODULES



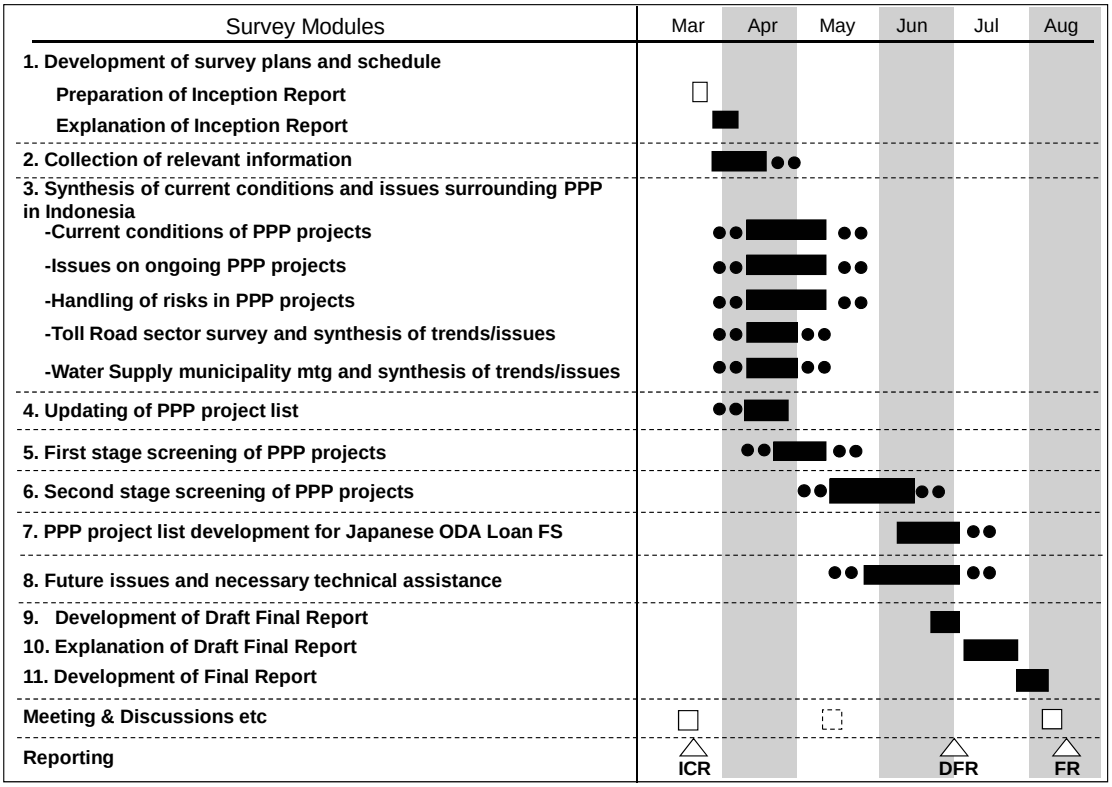
Source: ICR.

Figure 1.1.3 Study activity overview

1.3.2 Study schedule

Duration of this study was approximately 4months, from end of March2009 to beginning of August2009. A large portion of study time was dedicated to the first stage and second stage screening of PPP project candidates. (Figure1.3.2)

STUDY SCHEDULE



Source: ICR

Figure 1.3.2 Study schedule overview

1.4 Project Organization

1.4.1 Study Members

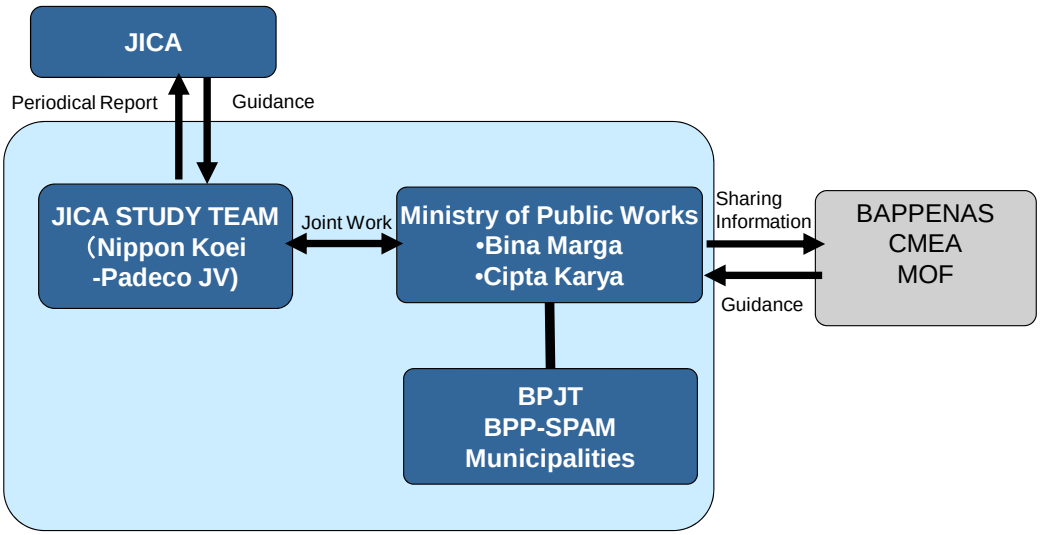
This study was conducted by 6 international consultants and 3 local consultants.

- Makoto Ozawa: Team Leader/PPP Expert
- Takao Ninomiya: PPP Legal (in charge of chapter2)
- Mikio Orikasa: Toll Road Planning (in charge of chapter3)
- Takayuki Fujitomi: Environmental & Social Considerations (in charge of chapter3)
- Mitsuhiro Doya: Water Supply Planning (in charge of chapter4)
- Shigemasa Tsuboi: Water Supply Facility Planning (in charge of chapter4)
- Muhammad Saifullah: Toll Road Analyst
- Nani Susanti: Water Supply Analyst
- Shintani Wulandari: PPP Analysis Assistant

1.4.2 Project Organization

Study team described above worked closely with MPW and related agencies, with periodical information sharing with BAPPENAS, CMEA and MOF. (Figure1.4.2)

PROJECT ORGANIZATION



Source: ICR

Figure 1.4.2 Project Organization

CHAPTER-2 SYNTHESIS OF CURRENT SITUATION AND ISSUES REGARDING PPP INFRASTRUCTURE PROJECT IN INDONESIA

2.1 Definition of PPP infrastructure development projects

2.1.1 Definition mentioned in OGM (Operational Guidelines Manual)

OGM was drafted out as an implementation guideline of Perpres67/2005 and it is used for educating those in the Indonesian administration. It seems that OGM's definition of PPP is to the point.

- OGM defines PPP broadly. (Fig.2.1.1-1)
- PPP means the cooperation between the government and private business entities. Private sector participation indicates the same as above. PPP does not refer to privatization.
- Private business entities are defined as limited liability companies and State Owned Enterprises (SOE/BUMN) and Region Owned Enterprises (ROE/BUMD).
- The public and private investor signs Cooperation Agreement, which is the same as Concession Agreement and Contract Agreement (hereinafter called CA).

DEFINITION OF PPP BY OGM

Item	description
PPP	PPP is defined as cooperation between Government and a Business Entity. OGM define as the introduction of and participation by, private entities into ownership and/or operation of government infrastructure provision. OGM also exclude all types and forms of privatizations.
Concession/Cooperation/Contract Agreement	These agreement are contracted between the government, represented by the appropriate contracting agency, and a private sector entity. OGM consider 3 naming are same meaning.
Project Facility	The property, plant or equipment which is integral to the provisions of the services, as specified in the cooperation agreement.
Risk	Risk is defined as event that will have a material negative impact on the anticipated outcome(s) of a project or undertaking, whereas risk analysis is on the likelihood of such an event occurring. Risk involves cost so that PPP is a risk/cost sharing relationship between the public and private sectors.
Private sector	Perpres 67 refer to business entity which includes private sector company or SOE. Private sector company and a SOE could establish a business entity (SPC, SPV).
Infrastructure/ Consultation	Infrastructure means Transportation, Road, Water, Tele-com, Power, Oil, Gas. Consultation includes SCBA, sector plan, Pre F/S, public consultation. Consultation is also important to relation to the environmental analysis.
Social Benefits	To select PPP projects, social and cost benefit analysis (SCBA) is required. Compensation to the private sector is payable by Government based on a proper study of social interest and social benefits. The pre-feasibility study must therefore include a SCBA
Procurement & Force Majeure	For the modalities, procurement is tantamount to procuring goods and services. Contracting Agency must procure the preferential bidders through public tender. The contracting agency may conduct a proper scrutiny of the optical cost of the project, before and after PPP concession is awarded.
PPP Modality	PPP Modality is varied wide range according to the sector and the specific circumstances of the particular project. Since there many modality exist, the model selected would need to be carefully considered so that the resulting project was realistic and feasible.

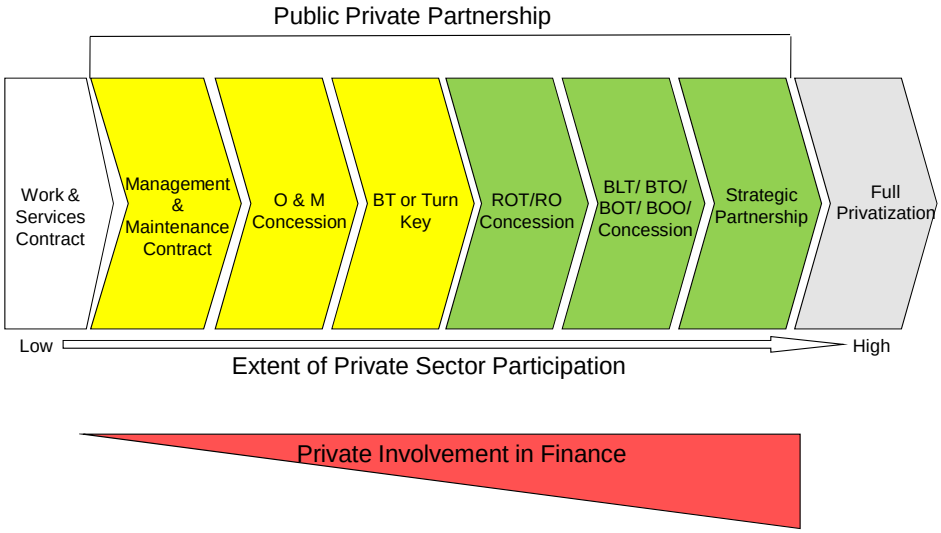
Source: OGM

Figure 2.1.1-1 Definition of PPP by OGM

Patterns of PPP are broad and various. One example of how to frame PPP

pattern is to consider the degree of private sector participation. (Fig.2.1.1-2)

EXAMPLE OF PPP PATTERN



Source: PPP promotion forum, Japan

Figure 2.1.1-2 Example of PPP pattern

2.1.2 Definition by Laws and Regulations related to PPP

(1) Definition by Perpres 67/2005

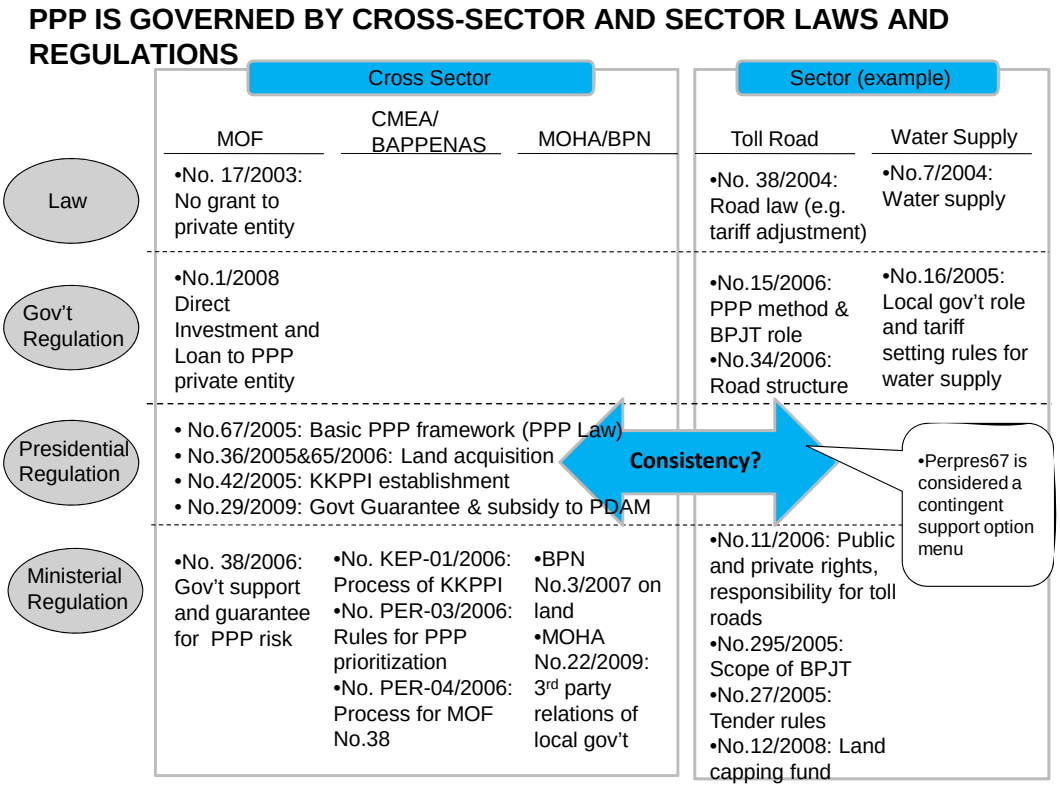
It specifies infrastructure building and management with public and private partnership. The public involves the ministries, ministry organizations, and provinces; at the same time, they operate as contracting agencies. On the other hand, the private involves limited liability companies, state owned enterprises (BUMN), and region owned enterprises (BUMD). This regulation mentions that PPP in the infrastructure projects can be realized through CA. Although it summarizes rights and duties of the public and private, it does not specify the form of PPP.

(2) Definition mentioned in sector regulation (Example of toll road)

MPW Road law No.38/2004 says, “A toll road business enterprise means that Business Enterprise shall be a legal body that deals with toll road projects.” Although MPW Regulation No.15/2006 implies the similar definition, it says simply Enterprises instead of Business Enterprises. The regulation regards BPJT as a contracting agency. Bina Marga does not define BOT as a part of PPP. However, this chapter defines BOT as one of PPP projects based on the broad definition of PPP. When discussing the toll road sector in chapter3, we will define the way Bina Marga defines PPP.

2.2 Current situation and issues regarding governance

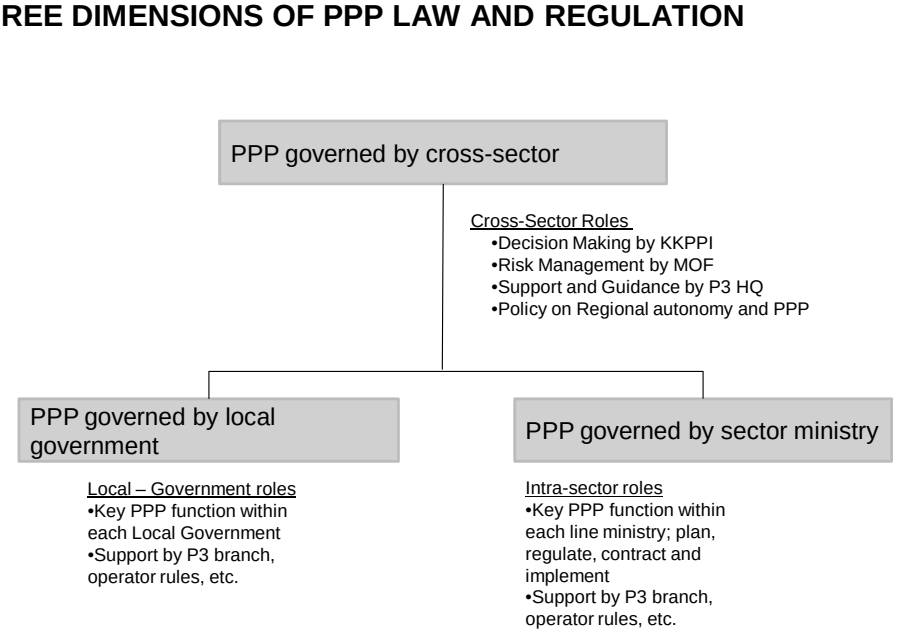
The structure of laws and regulations concerning PPP infrastructure projects in Indonesia is shown in Fig2.2-1. Current situation and issues on governance are desicribed in 2.2.1 Governance of cross-sector level, 2.2.2 PPP by Local Government and 2.2.3 PPP by Sector Ministry, respectively.



Source: PPP study team

Figure 2.2-1Overview of PPP laws and regulations

In the following section, we would like to describe the situation of three PPP related dimensions; 1) cross-sector laws and regulations, 2) regional/municipal government laws and regulations, 3) sector ministries laws and regulations (Fig.2.2-2)



Source: PPP study team

Figure 2.2-2 Three dimensions of PPP law

2.2.1 Current situation of cross-sectoral PPP laws and regulations

Laws and regulations concerning PPP in Indonesia are regulated in various respects and cover all the process of PPP projects, including application of PPP projects by the contracting agency, acknowledgment of the project by the National Committee for the Acceleration of Infrastructure Provision (KKPPI), approval of government support for the project by Ministry of Finance (RMU), and the contracting agency's tender process.

PPP project governance is described in Perpres No.67/2005 (hereinafter called Perpres67). However, contracting agencies which do not require "government guarantee and/or direct support" do not necessarily need to follow Perpres67. From this point of view, Perpres67 can be interpreted as an option menu for contracting agency.

Revision of Perpres67 is currently under process. Key revision points are described in Figure2.2.1.

DRAFT REVISIONS TO PERPRES No.67 / 2005 (June 2009)

Item	Current PR No.67	Revision (draft)
1. Contracting Agency	•No clear mentioning of contracting agency •Only minister/head of agency/head of region can be responsible for implementation	•Contracting agency shall be authorized as implementation body (including local/provincial development agency, BUMN, BUMD)
2. Government Support	•Not clear enough •Support provided by the minister/head of agency/head of region to private sector based on Cooperation Agreement, including PSO	1. Government support is direct and indirect support. 2.Government obligation (land acquisition, permits and others stipulated by ministry/head of agency/head of region) 3.Direct support is given by APBN and APBD. 4.Government /local government can issue Guaranty as contingent support (incl. demand, unforeseen risk)
3. Financial Closure	•Within 12 months after CA signed, Private Sector shall obtain the cost to finance. •If Private Sector fail to make finance, then CA become not valid and Bond shall be forfeited	・SPC shall reach financial closure within 12 month after CA signed ・Definition of financial closure as follows; 1.Loan agreement has been signed for all project cost 2.Actual money has been used for the project
4. Transfer of Shareholding	•No transfer of shareholding before commencement of commercial operation	•Part or whole transfer of shareholding shall be permitted under permit from minister/head of agency/head of region.
5. Procurement Procedure	•In case of less than 3 tenderer who passed PQ, Contracting Agency continue to invite PQ. •For the evaluation for tender, Envelop I (Administaration and Technical) shall be opened, then Envelop II (price) will be submitted by passed tenderer.	• If applicant who passed pre-qualification, continue public tender process. • If applicant is only one after repeat one time, contracting agency enter negotiation under permit from minister.
6. Business Entity Procurement	No relation is stated regarding Operational Guidelines Manual(OGM)	• The detail regulation for Implementation Guideline will be arranged by the regulation of BAPPENAS
7. EIA	•Not clearly stated	•Not clearly stated

Source: BAPPENAS

Figure 2.2.1 Draft revisions to Perpres67

2.2.2 PPP by regional/municipal government

We would like to take water supply as an example for how PPP could be governed in relation to regional/municipal government.

In water supply projects, the central government focuses on comprehensive planning and partial funding support, while the local governments focus on implementation, based on regional autonomy policy. Water providers are defined as governments or the private businesses based on MPW regulation No.16/2005. In most part of Indonesia, municipalities start local enterprises (PDAM) to be providers.

In general, however, the local government has not been able to govern PDAMs well. Many PDAMs have increased their deficits because they have difficulties in scaling up, raising tariff, and improving their management. Recently, local governments requested the central government to institutionalize remedy for PDAMs' arrears. In any case, increase of water supply has stalled under regional autonomy. Some refer to MPW regulation NO.16/2005, article37 and maintain that if local government cannot provide sufficient water services, then, private entity could be involved directly as a B-to-B arrangement with either PDAM or BUMN/BUMD.

PPP application in water supply project has been quite limited to date. The study

team could identify only cases of DKI Jakarta, in which the regional government provided water provider concessions to private parties. However, this contract was originally signed before current basis of PPP related laws and regulations. Since then, revisions to the contract has been made. However, many people still quote this case to be not successful. For example, it is not clear whether the private party has intentions to make timely additional investments to improve distribution coverage.

Going forward, developing a model case of PPP projects in water supply will be essential. Here, the key will be the initiatives and preparation by the contracting agency. Contracting agency for PPP Water Supply projects will differ based on size and characteristics. For example, MPW will be contracting agency for PPP projects involving raw water resources covering cross-provincial areas are handled by MPW. Provincial government could be contracting agency for projects spanning across multiple PDAM areas. Municipal government (Kota, Kabu Paten) will be contracting agency for small PPP projects within the scope of one PDAM..

2.2.3 PPP in relation to sector ministries

Many of the contracting agencies for infrastructure are supervised by the sector ministries. As an example, in case of toll road, Bina Marga of MPW sets plans and policies, while PPP projects are implemented by BPJT as the contracting agency. Implementation of toll road projects is based on MPW road law No.38/2004 and MPW regulation No.15/2006. These regulations are not related to Perpres67. Therefore, unless the projects require government guarantee and/or direct support (as described in MOF regulation No.38/2006), they do not have to follow Perpres67.

In case the projects need central government support, the procedures indicated in Perpres67 should be followed. In the case of Solo- Kertosono toll road project, which has been stuck for more than two years, it is said that it became difficult to provide government support because the project did not follow the procedure based on Perpres67. (Fig.2.2.3)

ISSUES OF PPP PROJECT: CASE STUDY OF SOLO-KERTOSONO TOLL ROAD (JUNE,2009)

Schedule	Prolonged Since Tender and selection	•Invitation issued at 2005/2006, bid submitted in June 2007 and to decide a candidate in May 2008. Budget allocation for land is Rp. 1,389 billion upto 2009 and waiting for CA in 2009(?).	CA may be signed soon according to WB workshop attendant
Economical & Financial Return	No Financial Closure	•The project has high economic feasibility but low financial feasibility. •No clear guideline on the delay between the designation of preferred bidders and the signing of contract. •Financial Crisis impact	A foreign investor involved in all Trans-Java Toll Road
Feasibility Study (F/S)	Not to follow the F/S	•Recommendation from feasibility study was not or could not be pursued.	DBFO with Gov. subsidy during construction & operation change to only for construction stage (Option 6 change to 4)
Government Support	Not finalized	•Government direct subsidy provided as "Partial Construction" •The decision making process for government support was fragmented	To negate government support by not adopting Perpres 67 process
Risk Allocation	Not optimal	•Not an optimal risk allocation	
Competition	No competition bid	•Two (2) bidding with 5 days interval (number of bidder was 1)	Only one bidder leave some issues
Land	Not progressed well	•Still in the big "If"	According to the source on June workshop, further 2 years need for land acquisition

Source: World Bank

Figure 2.2.3 Solo-Kertosono case study

BPJT faces capacity issues as they are handling 22 BOT/PPP projects and planning for additional tenders. They plan to establish PMU for each project but find it difficult to achieve based on current number of staff. Original concept of P3CU and P3Node should assist such contacting agency. Alternatively, P3Node function must be strengthened within BPJT.

2.2.4 Consideration for refinements

(1) Consistency of cross-sectoral systems

Currently, different processes are adopted by each contracting agencies and local governments, since the process regulated in the Perpres67 (e.g. pre-F/S, F/S, assessment of EIRR/FIRR, request for government support, preparation for tender documents) and the one regulated in sector ministry regulations are not fully synchronized. Solo- Kertosono toll road project, as mentioned earlier, is one of the cases that government support has not been given because Perpres67 was not followed Synchronization of sector level regulation with Perpres67 must be further enhanced. (Fig.2.2.4)

TENDER PROCESS COMPARISON BETWEEN PERPRES67 AND SECTOR LAW

Activity	Perpres67	Toll Road Law (No.15/2006)
Contracting Agency	Minister/Head of Agency/Head of Region, Procurement Committee	BPJT
Tender Document	Scope of work, content of tender document, currency, language, bond, alternative bid, wrapping/submission, opening, confidentiality, prohibition, etc	Instruction, form, requirement, f/s, draft management agreement, guarantee, other information like economic, social, demographic data, analysis of EI, etc
Evaluation Criteria	Evaluation system (criteria, formulation, method) and price preference evaluation in instruction to tender	Designated evaluation criteria in tender document and evaluated by tender committee.
Numbers of bidders	Basically more than 3 bidders to participate in tender	In case only1 bidder passed qualification, a) to repeat tender process, or b) to engage in a negotiation with 1 bidder
Tender Evaluation process	1.Envelope I (administrative & technical data) 2. Envelope II (cost data) will be further submitted by passed Cover I bidder	Provisions concerning the evaluation shall be regulated under the Minister regulation. Tender committee will follow evaluation criteria above.
Award	Minister/Head of Agency/Head of Region will issue Letter of Decision of Selected. If he withdrew, 2nd runner up will be selected	Tender committee submit winner to BPJT, then Head of BPJT submit to Minister for his determination

Source: PPP study team

Figure 2.2.4 Tender process comparison

(2) Policy on land acquisition

A key bottleneck for PPP implementation is land acquisition. It is difficult to understand the reality of land acquisition because it traditionally entails factors related to local cultures and communities in terms of processes and expenses and also involves price speculation. It is one of the key bottlenecks for PPP projects.

Based on interviews, our study team recommends that government should be responsible to provide land. Clarifying this within law& regulation (e.g. Perpres67) will make a big difference in terms of investor attractiveness. In addition, socialization and negotiation of land should be given more degrees of freedom to support activities by PTP/PPT.

(3) Improvements to CA as a legal base

For private investors, CA provides the legal basis for PPP scheme. It is important to ensure that government commitments described in CA is ensured by pre-agreements with sector ministries, MOF and other related parties.

2.2.5 Private sector's view on PPP law and regulation

Potential participation barriers against the private sector in the PPP laws and regulations are the following: 1) Requirement for private investor to fund for land. This is the largest concen for toll road potential investors 2) Limited information about government guarantee and direct support. For watersupply, payment risk of PDAM is of critical concern and investors requested for

government guarantee in case PDAM failed to make prompt payment 3) Uncertainty on tax regulations about investment dividend, 4) Uncertainty on rights to decide tariff or toll, 5) Disputes resolution method. Key points from interviews with private investors are indicated in Fig.2.2.5.

PRIVATE INVESTOR'S VIEW ON PPP LAWS AND REGULATIONS

- Requirement for government preparation should be clarified
- Government guarantee and extent of responsibility should be clarified further
- Revisions/issuance of relevant law/regulation should improve processing speed
- Appointment of high level officer and professional staff to relevant position
- Further review and revision may be needed for;
  1) Perpres 67/2005 and Attachment, especially on land acquisition responsibility
  2) Approval process for PPP project should be simplified for faster decision making
  3) Prequalification of PPP project investor
  4) Tender, selection and signing of PPP project to be accompanied by better government preparation

Source: Interviews

Figure 2.2.5 Private investor's view on PPP law

2.2.6 Recommendation for PPP governance

(1) Accelerate refinements to PPP related regulations

In summary, following three key points of refinements should be pursued. 1) Revise Perpres67 including government's responsibility to provide land, and the need to clarify government guarantee and direct support, including decision timeline, in the tender information, 2) Synchronize sector law/regulation with Perpres67, 3) Refine land procurement Perpres36&65 on land negotiation and compensation to increase degrees of freedom

(2) Position "OGM" as official guideline

Guiding implementation becomes a key for success going forward. Operational Guideline Manual (OGM), which was made by CMEA in 2006 could be positioned as a base guide for contracting agencies. Also, the manual/draft is useful for the private sector since it mentions how the contracting agencies prepare tenders or manage projects. Needless to say, the content would require some revisions based on the nature of projects.

Promotion of OGM at the same time as revision of Perpres67 could support in achieving the following: 1) strengthening of the contracting agencies, 2) enhancement of related agency collaboration, and 3) encouragement of private investor participation

In addition, development of sector-specific OGM manuals by line ministries should be further considered in the future.

2.3 Current situation and issues on risk management and government support

2.3.1 Current situation and issues on risk management

(1) Framework for risk management

MOF regulation No.38/2006 defines PPP infrastructure risk as follows:

Political Risk

Financial losses directly caused by government's decisions on policy and regulations. This includes restrictions on FX, money transfer, etc.

Project Performance Risk

Risk related to implementation of project, including land acquisition risk and operational risks

Demand Risk

Risk that demand for infrastructure service is lower than originally forecasted.

One important aspect of risk management is contract management after CA signing. This function should be further strengthened.

(2) Function of RMU

The function of RMU is to screen the PPP projects offered through KKPPI and judge whether government support could be provided.

RMU analyzes the projects to assess requirements for government support. As shown in Fig.2.3.1, the following four financial and economic criteria are used: FIRR, ROE, DSCR and ICR. As a reference, we have interviewed IIFF (Indonesia Infrastructure Fund Facility) and asked for comments regarding the assessment criteria. IIFF provides funding to high potential PPP projects. They plan to start activities to assess financial feasibility of PPP projects starting fall of 2009.

RMU has investigated 10 cases since 2006, including 8 cases for toll road projects, 1 case for a monorail train project, and 1 case for an electricity project.

FINANCIAL FEASIBILITY ANALYSIS CRITERIA BY RMU

Item	Description by RMU	Comment by IIFF
FIRR	16% FIRR , as base case proposed by BPJT	Lending rate by IIFF not specified.
ROE	18 % (after Tax)	ROE more than 18% subject to PPP project
DSCR	More than 2	Above 1.2～1.3 may be appropriate
ICR	More Than 5	5 is too large. ICR can be much lower subject to PPP project

Source: Interviews

Figure 2.3.1 Financial feasibility criteria by RMU

2.3.2 Current situation and issues of government guarantee and direct support

(1) Regulation on Government Support

MOF regulation No.38/2006 defines risk and government support as follows.

[Risk and Government Support]

Item	Risk	Government Support
a	Political risk	Compensation can be provided based on prior agreement with private
b	Project performance risk	a. Land acquisition risk 1)Delays in land acquisition Support: concession period extension, other means agreed with MOF 2)Increase in land price Support: concession period extension, bearing a percentage of excess price b. Operational risk 1)Delays in declaring commencement of commercial operation, delays/cancellation in tariff adjustment Support: concession period extension, other compensation agreed with MOF 2)Changes in specification of outputs Support: compensation based on recalculation of production cost
c	Demand risk	a. Actual revenues are lower than minimum total revenue agreed Support: Compensation based on pre-approval by MOF b. Actual revenues are higher than minimum total revenue agreed Support: Government may obtain benefit from excess receipts

[Criteria for providing government support in risk management]

- Must comply with prevailing Indonesian laws and regulation

- Meet technical and financial feasibility criteria
- Costs and risks may not exceed the capacity limits of the APBN budget
- Provision of government support must fulfill the transparency principle

In addition, for land acquisition support, land capping fund and land revolving fund has been introduced. (Fig.2.3.2-1)

GOVERNMENT SUPPORT FOR PPP PROJECT

1. Land Capping Fund	GOI pays for the gap between land price between 110% of private sector estimate and Government appraisal. (Note; Actual acquisition cost will not exceed government appraisal)	•Already in place
2. Land Revolving Fund	•MOF prepared land acquisition fund ($170 Million), which is provided to BLU (under BPJT) •Local Government executes land acquisition and use money from BLU •Private investor will need to pay back to BLU (or PALT?) of land cost plus 11% (9% guarantee, 2% interest) •Under these scheme, private investor does not need to prepare capital in advance, reducing risk.	• Already in place •Utilization level not clear
3. Contingent Support • Guarantee Fund	•RMU has an allocated budget for: ➢Political risk ➢Project performance risk (land acquisition delay, land price increase, delay in commercial operation, change in specification) ➢Demand risk (actual revenue lower than minimum total revenue guarantee by government) • Each PPP project needs to comply with Per. Pres. No. 67 /2005, MOF Ministerial Regulation No. 38 / 2006 to obtain this support	•Already in Place • However, only 10 project received in past 3 years •No project has been implemented using this support

Source: Interviews

Figure 2.3.2-1 Government support for PPP project

(2) Land acquisition and/or Land delivery

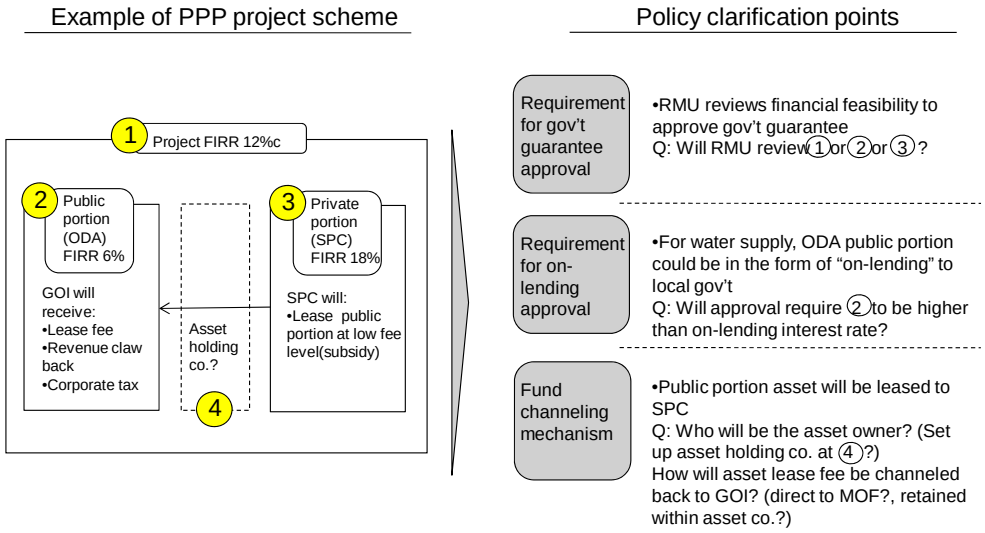
Land acquisition process is regulated in the Presidential Regulations No.36, No.65, and the Land Ministry Regulation No.3. As mentioned earlier, revision to Perpres67 should include government's responsibility to provide land. If this becomes the future norm, then, current land capping fund and revolving fund should be considered a temporary measure to progress the existing projects (e.g.in case of toll road, there are 22 such projects with CA)

(3) Mix of public and private fund

Increasingly, for Greenfield PPP projects, mixing public and private fund has been planned. The idea is to provide public fund as a means to improve private investor's return and attract private participation.

However, it seems that policies on this mixture requires further clarification. The study team raises three areas, as an example to illustrate this point. 1) Requirement for government guarantee approval, 2) Requirement for on-lending approval, 3) Fund channeling requirements (Fig.2.3.2-2)

PPP SCHEME TO MIX PUBLIC AND PRIVATE FUND REQUIRES POLICY CLARIFICATION



Source: PPP study team

Figure 2.3.2-2 Policy clarification for mix of public and private fund

(4) Private investor's view on government support

<u>Key questions raised by overseas private enterprise</u>

Study team interviewed overseas construction company, trading company, toll road operator, water supply operator and municipality. For toll road and water supply, study team provided example of 'section split' (please refer to chapter3 and 4) to receive concrete feedback.

	Toll road related entity	Water supply related entity
Governance related	What will be the policy on responsibility of land acquisition?	How will central and local government coordinate and support the project?
Government support related	How to mitigate O&M risk of public portion?	How will government guarantee PDAM's payment risk? How to ensure PDAM will enhance distribution coverage?
PPP process related	How to synchronize schedules between public portion and private portion?	What will be the tender method? Performance tender or specification tender?

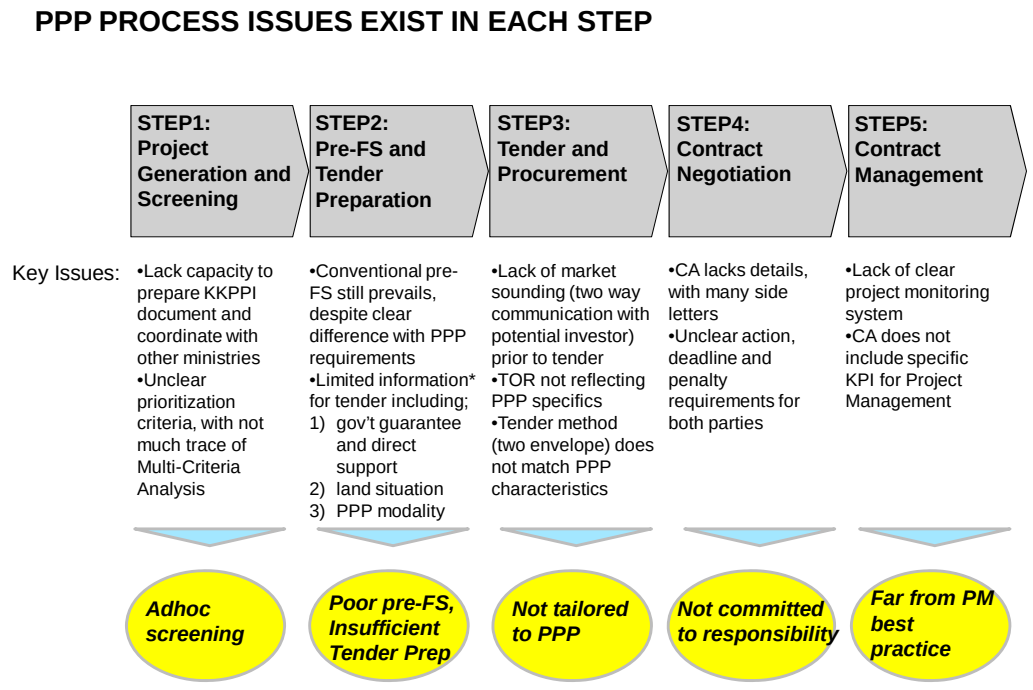
Key questions raised by Indonesia's private entity

Study team interviewed Indonesia's private entities including local banks, toll road operator, utilities company and water supply operator.

	Toll road related entity	Water supply related entity
Governance related	What will be the policy on responsibility of land acquisition?	Will there be stronger policies to ensure timely adjustment of tariff to recover cost?
Government support related	Will there be support for revenue downside risk?	How to fund for PDAM to increase coverage?
PPP Process related	How to solve for lack of contracting agency capacity?	Will local government and PDAM fully collaborate with private investor?

2.4 Current situation and issues regarding PPP process

In this section, we describe the PPP process (as defined in OGM) and describe issues related to each process step. Overall summary of PPP process issues are synthesized in Figure2.4.



Source: PPP study team

Figure 2.4 Summary of PPP process issues

2.4.1 Project generation and screening (STEP1)

(1) Project generation

PPP candidates are listed by planning functions of sector ministries and/or local government. Some projects are formally proposed by private investor. In this case, it will be treated as an unsolicited project.

(2) Project screening

OGM suggests the Multi Criteria Analysis (MCA) to screen and prioritize PPP project candidate. Each sector has its own characteristics. Thus, the criteria used for MCA should be tailored. Once screened candidates are lined up, it could be brought up for broad publicity. BAPPENAS has recently published a "PPP Book", which lists up all high priority candidates. BAPPENAS plans to publish this PPP Book twice a year. The screening result of toll road and water supply projects is described in Chapter 3 and 4.

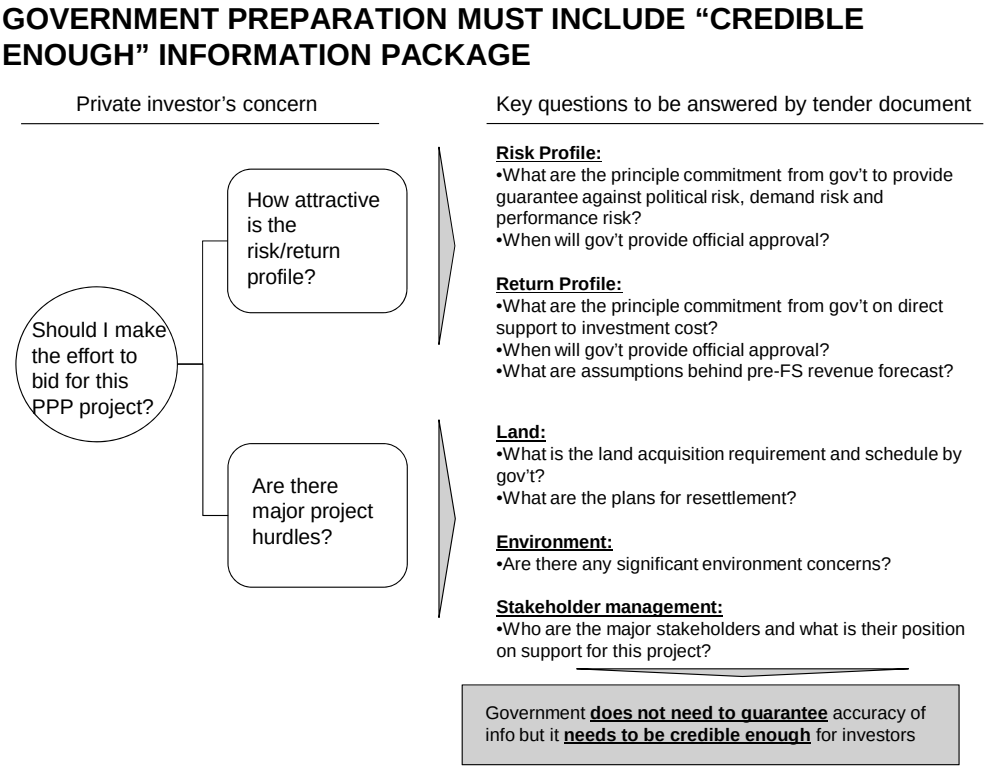
Contracting agency should decide whether to get central government guarantee and/or direct support. In this case, process required under Perpres67 should be followed. For example, the project needs to be officially registered as PPP project by KKPPI.

Observed issues of project generation and screening: In general, systematic screening using MCA has not been used as a means to screen and prioritize. Sector ministries and local governments prioritize projects on an "adhoc" discussion basis.

=> Sector-specific MCA template, together with MCA analysis example and guidelines are necessary.

2.4.2 Pre-FS and Tender Preparation (STEP2)

Pre-FS is carried out to 1) decide go or no-go for the project, and 2) develop sufficient information to be provided to potential investor, as part of tender preparation. Government should not conduct "official FS" for private investor. However, government needs to prepare "credible enough" information for investors to make a judgment on risk/return profiles and potential hurdles. (Fig.2.4.2)



Source: PPP study team

Figure 2.4.2 Information Package requirements

Observed issues of pre-FS and tender preparation: Conventional pre-FS still prevails. Generally, it provides overall project descriptions but lacking quality of financial analysis and risk assessment. This leads to insufficient tender preparation. For example, principle commitment for government guarantee and support should be described. Otherwise, investors will not be able to make a judgment call on project attractiveness. Also, transparent information on land acquisition situation and schedules must be provided. Such information should be detail enough to be credible in the eyes of private investor.

=> Development of PPP tailored pre-FS template would be useful for contracting agency. Also, a check list describing "pre-conditions for tender" would assist in ensuring sufficient information for the investor. Such information should be compiled into an "information package" to be used for investor explanation.

2.4.3 Tender and Procurement (STEP3)

(1) PQ

After the approval from central government for the PPP project, the contracting agency proceeds into pre-qualification.

Observed issues of PQ: Market sounding is lacking prior to PQ. Generally, it is advisable to hold two-way communication with potential investors. This allows further crafting of tender documents to attract more bidders to participate.

(2) Tender

Contracting agency will give a tender notice to international investors through internet and/or newspaper. The form of TOR is not specifically mentioned in current regulations. Therefore, each contracting agency needs to prepare the TOR.

PPP bidder must submit two envelopes under Perpres67. Envelope I is administration and technical proposal and Envelope II is financial proposal. Only the winner of Envelope I can submit Envelope II.

Observed issues of tender: In general, TOR does not reflect the specifics required for PPP. This is especially true in describing the definition of public roles and private roles. We have observed cases in which items such as risk allocation, construction cost funding, land acquisition funding are left quite open for bidder proposal. While we understand the intent to have bidder competition, basis of PPP financial scheme should be further determined prior to tender and reflected in the TOR.

Also, two envelope method may not always be suitable for PPP. For example, some projects may require performance based tender, rather than specification based tender. If private investor's idea to optimize infrastructure's lifecycle cost need to be evaluated, it cannot be done under two envelope method.

=> Development of PPP-specific TOR template and guideline will be useful in deciding what and how much to determine and fix prior to tender and what to keep as variable for bidder competition. Also, refinements to Perpres67 should include securing further degrees of freedom in the tender method.

(3) Evaluation Committee

Evaluation Committee described in Perpres67 requires that the committee shall consist of members who understand: 1) procurement procedure, 2) substance of the relevant work, 3) contract law, 4) technical aspect, 5) financial aspect.

Observed issues of evaluation committee: PPP requires specific knowledge for evaluation. Selection of right committee members with sufficient knowledge and experience of PPP is difficult.

⇨ We recommend to launch "advisory committee" (with global standard staff) to support evaluation committee. Attached below is an example of Singapore's "Wiseman Committee", as a reference.

Example for Land Transportation Authority (LTA) at Singapore ”Wiseman Committee”
LTA is the government organization of subway network and land using along the subway. The construction for subway was difficult for the soil condition. Therefore, the government established “Wiseman Committee” outer the evaluation committee. The established committee member was specialist and they could evaluate the technical proposal on the tender. This example was LTA carried out to minimize the technical risk on the tender.

2.4.4 Contract Negotiation (STEP4)

For PPP project, the negotiation between the contracting agency and the private investor requires skill and discipline from both parties.

The following process is required. 1) CA negotiation and signing, 2)Confirmation with relevant ministries, 3)Confirmation with contract law

Observed issues of contract negotiation: Based on reviews of several sample CAs, many of them lack sufficient details on obligatory actions to be taken by private and public (Condition Precedent). Furthermore, deadline for actions and penalty for not fulfilling condition precedent are vaguely defined. In other words, both parties are not committed to responsibility.

=> PPP specific template of CA, with examples of condition precedent should be provided and promoted as a standard

2.4.5 Contract Management (STEP5)

CA is a long-term contract. During execution, it is essential for government to set up a project management unit (PMU) for each PPP project. Typically, the project manager of PMU, who is appointed from contracting agency, works very closely with the project manager of SPC (private consortium to implement the project).

Observed issues of contract management: It seems there is a lack of clear monitoring system for PPP projects. Also, CA does not include a specific KPI for project management. Therefore, it is difficult to assess the performance of implementation.

=> Best practice of project management should be considered as part of standard system. As a reference, Fig.2.4.5 is attached, which is on “project management book of knowledge”.

PROJECT MANAGEMENT-PMBOK

Project Management Book of Knowledge (PMBOK) is the basic framework of PM for infrastructure project by Project Management Institute Inc. of USA. There are 9 categories to plan, do, check and action by Project Management Team.

Total Management; • Project charter to be announce • Target / object of the project to be declare	**Schedule Management;** • To establish the rational & reasonable program • To monitor appropriate system	**Cost Management;** • To establish the initial budget/cost for the project
Quality Management; •Ruling OM system like ISO shall be determined. •Routine OM control sampling and testing	**Safety Management;** • Safety regulation to be established. • Target control level to be decided.	**Communication Management;** • Ruling the communication process • Hierarchy, report and instruction stream to be declared
Procurement Management; • Procurement Guideline • Procurement schedule for goods and services defined	**Risk Management;** • Risk identification to be made • Classification and allocation of risk to determine	**Human Management;** • Office regulation to be established & implemented • Discipline to be acknowledge

Source: Construction Extension to the PMBOK Guide and PPP study team

Figure 2.4.2 Information Package requirements

2.4.6 Comparison of PPP practice with overseas

As a reference, in the last section of this chapter, we would like to introduce comparison of PPP practice with overseas.

INDONESIA PPP PRACTICE IN COMPARISON TO OVERSEAS (1)

PPP Sector Over View	Benchmark Countries	•Wide variety of PPP approaches used "Brownfield "availability payment. Local Government Project integrated into national frame work. policy framework supplemented by detailed regulation and procedures. B2B seen in power sector particularly often not part of PPP process.	•Limited range of PPP approaches used "Brownfield", mostly Greenfield projects based on user fees.
Policy Coordination	1. India 2. Korea	•For large national Project PPP Appraisal Committee (PPPAC) is convened, PPPAC consist of secretaries from MOF and the sector concerned Ministry. •PPPAC developed standard approaches for project review an clearance. Line agency prepare F/S and Project document then submit to PPPAC, if cleared line ministry issued RFQ and prepared RFP draft then submitted to PPPAC for final approval •All project undergo a pre-F/S study, project are implemented as PPP based on result on F/S, value of money and government support •For national large project a committee is convened and chaired by Ministry of MSF (Finance) and attended by all vice from related Ministries.	• There is lack clearly of document processes assessing and ranking PPP project. The relevant document not clearly stated criteria for obtaining direct obtaining or contingent government fiscal support
Government Support (Fiscal Support)	1. India 2. Korea	•All issues of Risk allocation and fiscal support are contained and considered prior to key go- ahead steps in the process. •Fiscal support made before bidding, fiscal support changes is possible, but need to be approved by Ministry	• The decision of Fiscal Support is not closely integrated into KKPPI's, the result of the process determining will be given to a particular PPP Project (National or Local) is not very clear or even always followed before the projects entered the bidding process.

Source: PPP study team

Figure 2.4.6-1 PPP practice comparison(1)

INDONESIA PPP PRACTICE IN COMPARISON TO OVERSEAS (2)

Preparation and Decision Making	India	•Successful PPP Program have sector agencies that are motivated to Pursue PPP. In India, NHAI (toll road) has to trial PPP option under toll and services approach.	•Line ministry do not appear to be as highly motivated to pursue of PPP •Feasibility study no appear to be enough rigors brought to the analysis of financial feasibility and bankability
Motivating	1. India 1. Korea	•Viability Gap Fund provides public agencies with additional resources to pursue PPP •Clear guideline established on type of projects supported and maximum level support •Risk allocation and contract documentation evaluated as part of decision to proceed •Level of VGF is sole bidding criteria •The encourage proper due diligence, government of India established India Infrastructure PDF (interest free loan 75% and sponsoring agency spend commit 25%) •Ministry of Planning and Budget in charge of overall PPP Policy and also allocating budget for public and private infrastructure	•Perpres No.67 and MOF/RMU has provided direct and indirect government support to encourage investors. •KKPPI decide PPP project however no much enhancement are observed.

Source: PPP study team

Figure 2.4.6-2 PPP practice comparison(2)

INDONESIA PPP PRACTICE IN COMPARISON TO OVERSEAS (3)

Marketing	Benchmark countries	•Project marketed when level and nature of government support largely determined and land acquisition deal.	• Indonesia may not be reaching the right audience of international investor to PPP programs.
Project Development Issue	Benchmark Countries	•Land will be the government acquires before put the project out to bid. •International investor are only likely to be attracted to projects with a sufficient size, smaller project may lead to predominance of construction companies.	•To rely on private sector's finance who are usually lack of fund. •Who bear the risk and who is responsible?
Post Contract Awarded	Benchmark Countries	•Government Agency responsible for contract monitoring and process doing so government agency with authority to amend or revise PPP agreement	•Indonesia yet to develop an effective program for the monitoring, management, evaluating to ensure that value for money delivered in individual PPP Project and the national PPP program as a whole.

Source: PPP study team

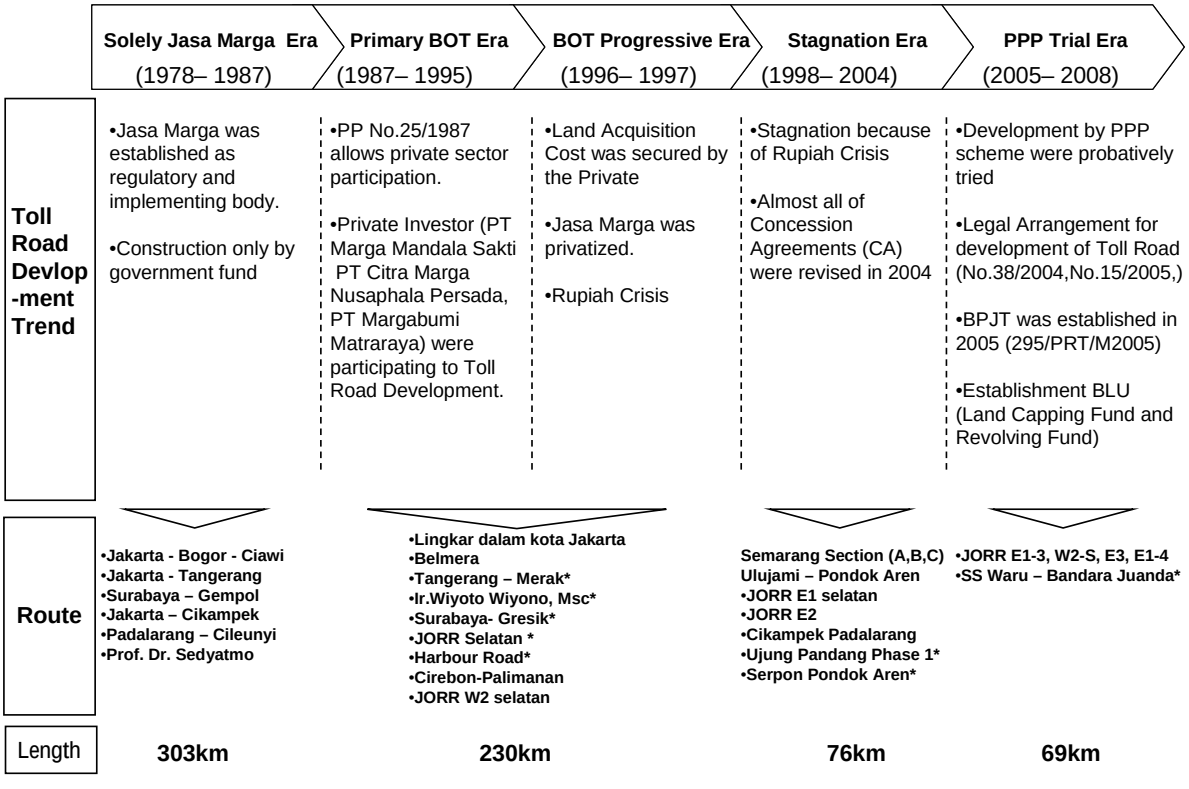
Figure 2.4.6-3 PPP practice comparison(3)

CHAPTER-3 TOLL ROAD PPP DEVELOPMENT PROJECTS

3.1 History of Toll Road Development

3.1.1 History of Toll Road Development Scheme

A total of over 600 km of toll roads have been operated in Indonesia until now. As shown in the Figure 3.1.1, the history of toll road development in Indonesia can be classified as five prominent eras in terms of development scheme. In the first decade of toll road development from 1978, the government established the Jasa Marga as both a regulatory and an implementing body to handle government construction projects. About 300 km in total of the route were constructed under this structure. In the following next decade, with the increase of the traffic, private sector enthusiasm for toll road construction has gathered momentum. Under this circumstance, Presidential Regulation No.25/1987, which allowed private sector participation, was issued as relaxation of regulation to private sector. Under this regulation, private investors participated in the development through a form of joint venture with Jasa Marga. Following this "primary BOT era", the scheme was progressively enhanced as private funds were also applied for land acquisition cost. Most of concessions, which are still ongoing until now, were contracted at this time. Indonesia suffered from the Asian economic crisis after many concessions were concluded. These concessions lapsed into de facto freezing contracts in the following decade up to 2004. In 2004 and 2005, the new road law (Law No.38/2004), toll road regulation (No.15/2005) and ministry regulation (295/PRT/M/2005) have been enacted. These laws formed the basis of the existing toll road development system, which defines the BPJT as a regulatory body, and the period until now can be defined as the "PPP trial era".



*note : undertaking by the private investor

Figure 3.1.1 History of Toll Road Development in Indonesia

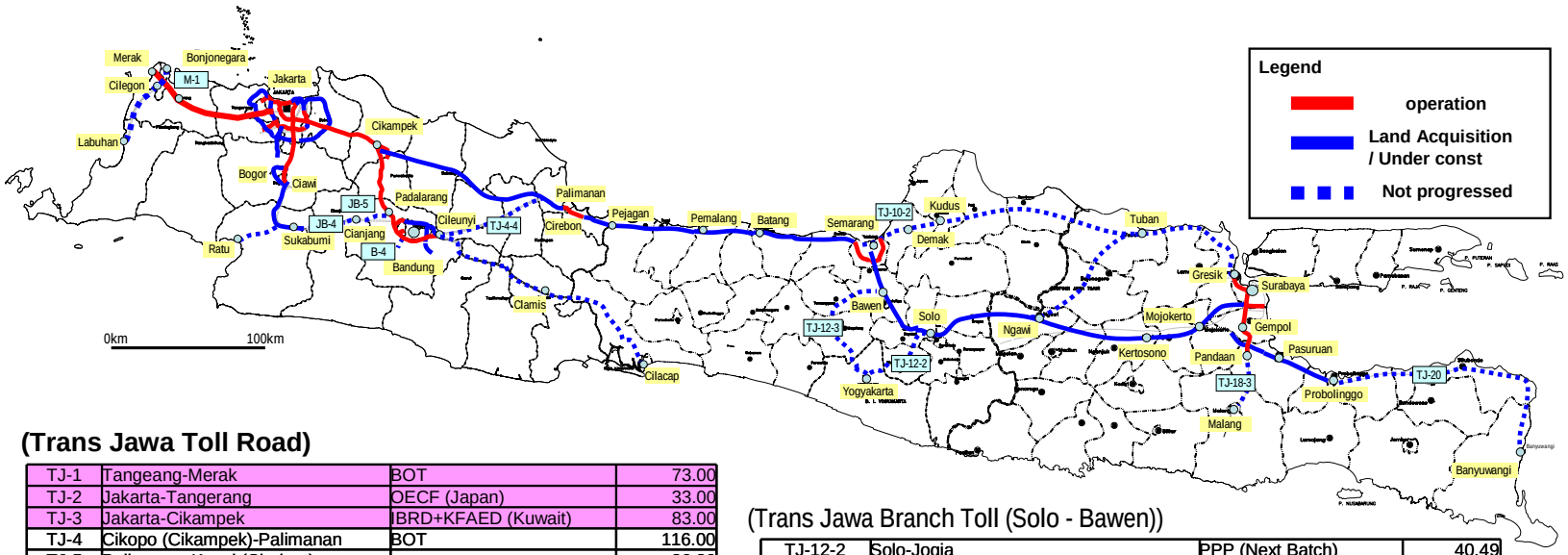
3.2 Toll Road Development Plan

3.2.1 Master Plan for Toll Road Development

Road development policies are formulated by Bina Marga and it is normally adjusted every 5 years. Under the current mid term plan between 2005 and 2009, the toll road master plan in No. 369/KPTS/M/2005 is formulated and has been revised in July 2006 (280/KPTS/2006) and June 2008 (360/KPTS/M/208). The route map and list of planned toll roads throughout Indonesia are shown in the master plan. (See Figures 3.2.1(1)-(5)) According to the master plan, the total length of the toll roads in Indonesia is 3,087.61 km, with 676.27 km of the roads being operated, while 2,411.61 km of roads are being planned or implemented. Long/mid-term development plans that show the order of priority and annual investment plan are not mentioned in this master plan.

In the current RENSTRA, which is the strategic plan of Bina Marga based on the mid term plan (RPJM) between 2005-2009, operation of a total of 1,100 km toll road in Jawa, Sumatra and Sulawesi is set up as an .achievement indicator by the end of 2009. However, it would be difficult to attain this target at present. In fact, in the last five years, about 70 km of new toll roads (Cikampek – Padalarang II, JORR W2-S2, E1-3, E1-4, E3, SS-Waru – Bandara Juanda) have been operated.

At present, the next RPJM and RENSTRA for the coming five years (2010-2014) are under process of formulation. Although the current RENSTRA is prioritized in Jawa, Sumatra and Sulawesi for toll road construction, there is a possibility to expand the toll road development region to Kalimantan in the next RENSTRA..



(Trans Jawa Toll Road)

TJ-1	Tangeang-Merak	BOT	73.00
TJ-2	Jakarta-Tangerang	OECF (Japan)	33.00
TJ-3	Jakarta-Cikampek	IBRD+KFAED (Kuwait)	83.00
TJ-4	Cikopo (Cikampek)-Palimanan	BOT	116.00
TJ-5	Palimanan-Kanci (Cirebon)		26.30
TJ-6	Kanci-Pejagan	BOT	35.00
TJ-7	Pejagan-Pemalang	BOT	57.50
TJ-8	Pemalang-Batang	BOT	39.00
TJ-9	Batang-Semarang	BOT	75.00
TJ-10	Semarang Seksi A & B Semarang Seksi C	National Budget	24.75
TJ-11	Semarang-Solo	BOT	75.70
TJ-12	Solo-Mantingan	PPP (Batch III)	56.10
TJ-13	Mantingan-Ngawi	PPP (Batch III)	34.00
TJ-14	Ngawi-Caruban-Kertosono	PPP (Batch III)	87.02
TJ-15	Kertosono-Mojokerto	BOT	41.65
TJ-16	Mojokerto-Surabaya	BOT	34.05
TJ-17	Surabaya-Gempol	ADB+SFD (Arab Saudi)	49.00
TJ-18	Gempol-Pasuruan		33.75
TJ-19	Pasuruan-Probolinggo	BOT	45.32
TJ-20	Probolinggo-Banyuwangi	PPP (Next Batch)	170.36

(Trans Jawa Branch Toll Road(Cikampek – Bandung - Palimanan))

TJ-4-2	Cikampek-Padalarang		58.50
TJ-4-3	Padalarang-Cileunyi(include access road)	KFAED+SFD	64.40
TJ-4-4	Cileunyi-Sumedang-Dawuan	PPP (Batch IV)	58.50

(Trans Jawa Branch Toll Road(Semarang - Surabaya))

TJ-10-2	Semarang-Demak	PPP (Next Batch)	23.99
TJ-10-3	Demak-Kudus-Tuban		195.00
TJ-10-4	Gresik-Tuban		75.00
TJ-10-5	Surabaya-Gresik	BOT	20.70

(Trans Jawa Branch Toll (Solo - Bawen))

TJ-12-2	Solo-Jogja	PPP (Next Batch)	40.49
TJ-12-3	Jogja-Bawen	PPP (Next Batch)	104.00

(Trans Jawa Branch Toll (Nagwi - Babat))

TJ-14-2	Ngawi-Babat		115.00

(Trans Jawa Branch Toll Road (Gempol Malang))

TJ-18-2	Gempol-Pandaan	BOT	13.61
TJ-18-3	Pandaan-Malang	PPP (Batch IV)	37.62

(Jakarta – Bandung Toll Road)

JB-1	Jagorawi	USAID (USA)	59.00
JB-2	Ciawi-Sukabumi	BOT	54.00
JB-3	Sukabumi-Ciranjang	PPP (Batch IV)	28.00
JB-4	Ciranjang-Padalarang	BOT→PPP	33.00
JB-2	Bogor Ring Road	BOT	11.00
JB-4-1	Cibadak-Pelabuhan Ratu		39.00

(Bandung Cilakap Toll Road)

BC-1	Bandung-Nagreg-Ciamis-Cilacap		150.00

(Merak Area Toll Road)

M -1	Cilegon-Bojonagara	PPP (Next Batch)	15.69
M- 2	Cilegon-Teluk Banten		13.00
M- 3	Cilegon-Labuan		65.00

(Bandung Area Toll Road)

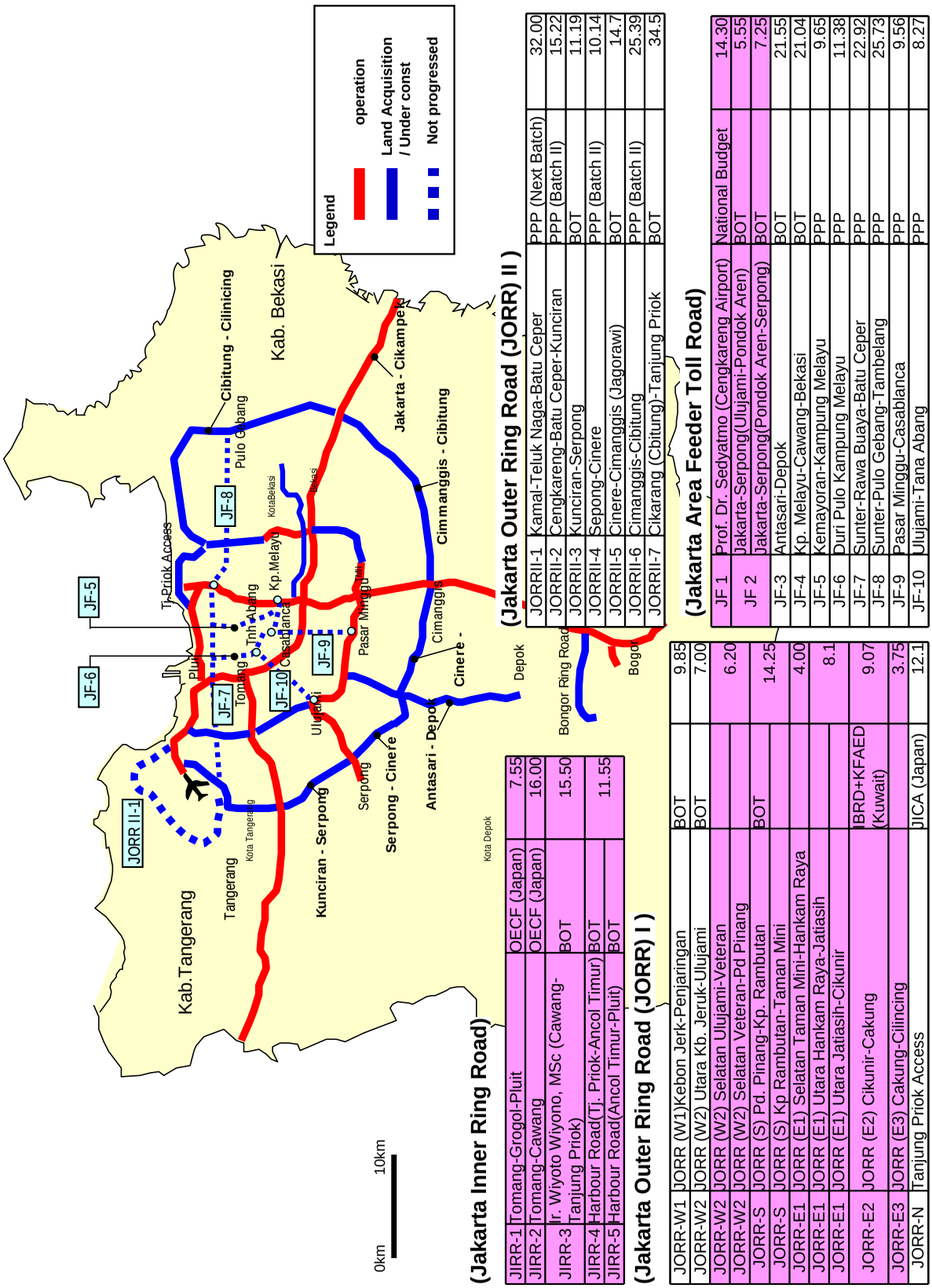
B-1	Paspati - Ujung Berung	JICA (Japan)	?
B-2	Terusan Pasteur-Ujung Berung-Cileunyi	PPP (?)	20.85
B-3	Ujung Berung-Gede Bage-Majalaya	PPP (?)	19.20
B-4	Pasirkoja-Soreang	PPP (Batch IV)	15.00
B-5	Bandung-Lembang		10.00

: route in operation : route not incl. in Master Plan

Source : Investment opportunity of Toll Road in Indonesia BPJT2007.

Figure 3.2.1(1) Location of Toll Roads (Jawa Island)

Figure 3.2.1(2) Location of Toll Roads (JABODTABEK area)



(Jakarta Inner Ring Road)

JIRR-1	Tomang-Grogol-Pluit	OECF (Japan)	7.55
JIRR-2	Tomang-Cawang	OECF (Japan)	16.00
JIRR-3	Ir. Wiyoto Wiyono, MSc (Cawang-Tanjung Priok)	BOT	15.50
JIRR-4	Harbour Road(Tj. Priok-Ancol Timur)	BOT	11.55
JIRR-5	Harbour Road(Ancol Timur-Pluit)	BOT	

(Jakarta Outer Ring Road (JORR) I)

JORR-W1	JORR (W1)Kebon Jerk-Penjaringan	BOT	9.85
JORR-W2	JORR (W2) Utara Kb. Jeruk-Ulujami	BOT	7.00
JORR-W2	JORR (W2) Selatan Ulujami-Veteran		6.20
JORR-W2	JORR (W2) Selatan Veteran-Pd Pinang		
JORR-S	JORR (S) Pd. Pinang-Kp. Rambutan	BOT	14.25
JORR-S	JORR (S) Kp Rambutan-Taman Mini		
JORR-E1	JORR (E1) Selatan Taman Mini-Hankam Raya		4.00
JORR-E1	JORR (E1) Utara Hankam Raya-Jatiasih		8.1
JORR-E1	JORR (E1) Utara Jatiasih-Cikunir		
JORR-E2	JORR (E2) Cikunir-Cakung	IBRD+KFAED (Kuwait)	9.07
JORR-E3	JORR (E3) Cakung-Cilincing		3.75
JORR-N	Tanjung Priok Access	JICA (Japan)	12.1

(Jakarta Outer Ring Road (JORR) II)

JORRII-1	Kamal-Teluk Naga-Batu Ceper	PPP (Next Batch)	32.00
JORRII-2	Cengkareng-Batu Ceper-Kunciran	PPP (Batch II)	15.22
JORRII-3	Kunciran-Serpong	BOT	11.19
JORRII-4	Sepong-Cinere	PPP (Batch II)	10.14
JORRII-5	Cinere-Cimanggis (Jagorawi)	BOT	14.7
JORRII-6	Cimanggis-Cibitung	PPP (Batch II)	25.39
JORRII-7	Cikarang (Cbitung)-Tanjung Priok	BOT	34.5

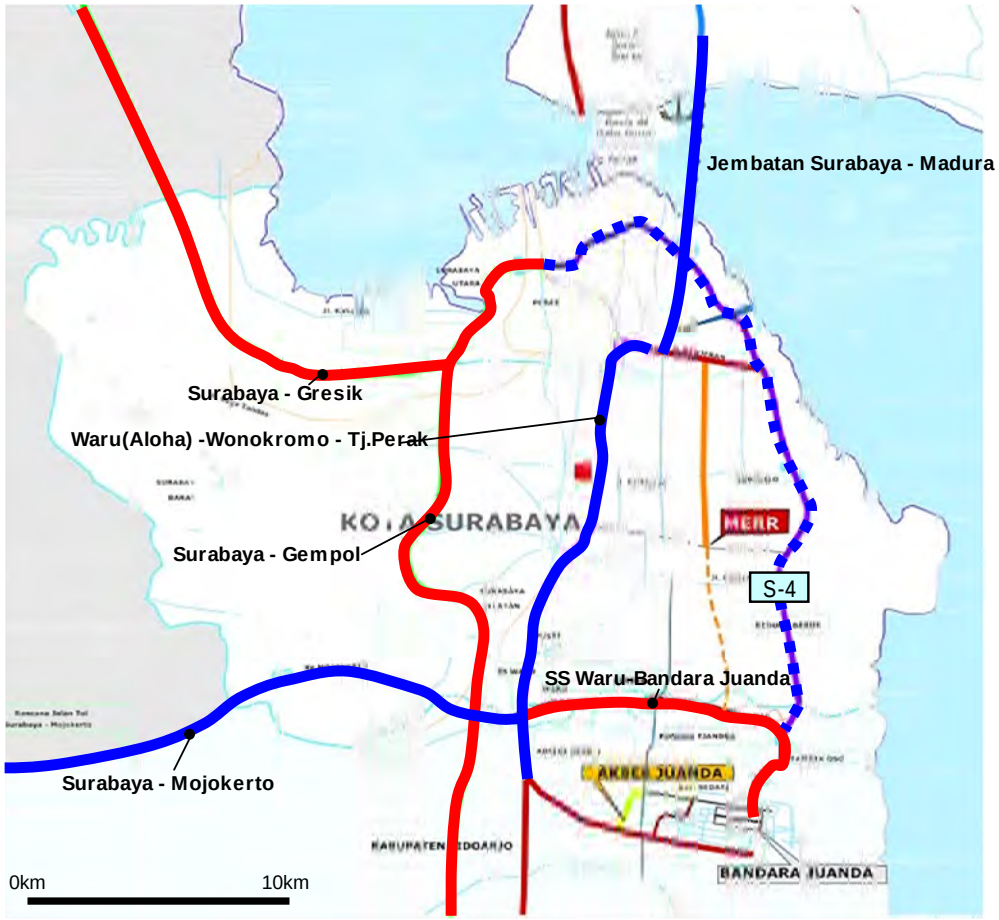
(Jakarta Area Feeder Toll Road)

JF 1	Prof. Dr. Sedyatmo (Cengkareng Airport)	National Budget	14.30
JF 2	Jakarta-Serpong(Ulujami-Pondok Aren)	BOT	5.55
	Jakarta-Serpong(Pondok Aren-Serpong)	BOT	7.25
JF-3	Antasari-Depok	BOT	21.55
JF-4	Kp. Melayu-Cawang-Bekasi	BOT	21.04
JF-5	Kemayoran-Kampung Melayu	PPP	9.65
JF-6	Duri Pulo Kampung Melayu	PPP	11.38
JF-7	Sunter-Rawa Buaya-Batu Ceper	PPP	22.92
JF-8	Sunter-Pulo Gebang-Tambelang	PPP	25.73
JF-9	Pasar Minggu-Casablanca	PPP	9.56
JF-10	Ulujami-Tana Abang	PPP	8.27

: route in operation : route not incl. in Master Plan

Source : Investment opportunity of Toll Road in Indonesia BPJT2007

Figure 3.2.1(2) Location of Toll Roads (JABODTABEK area)



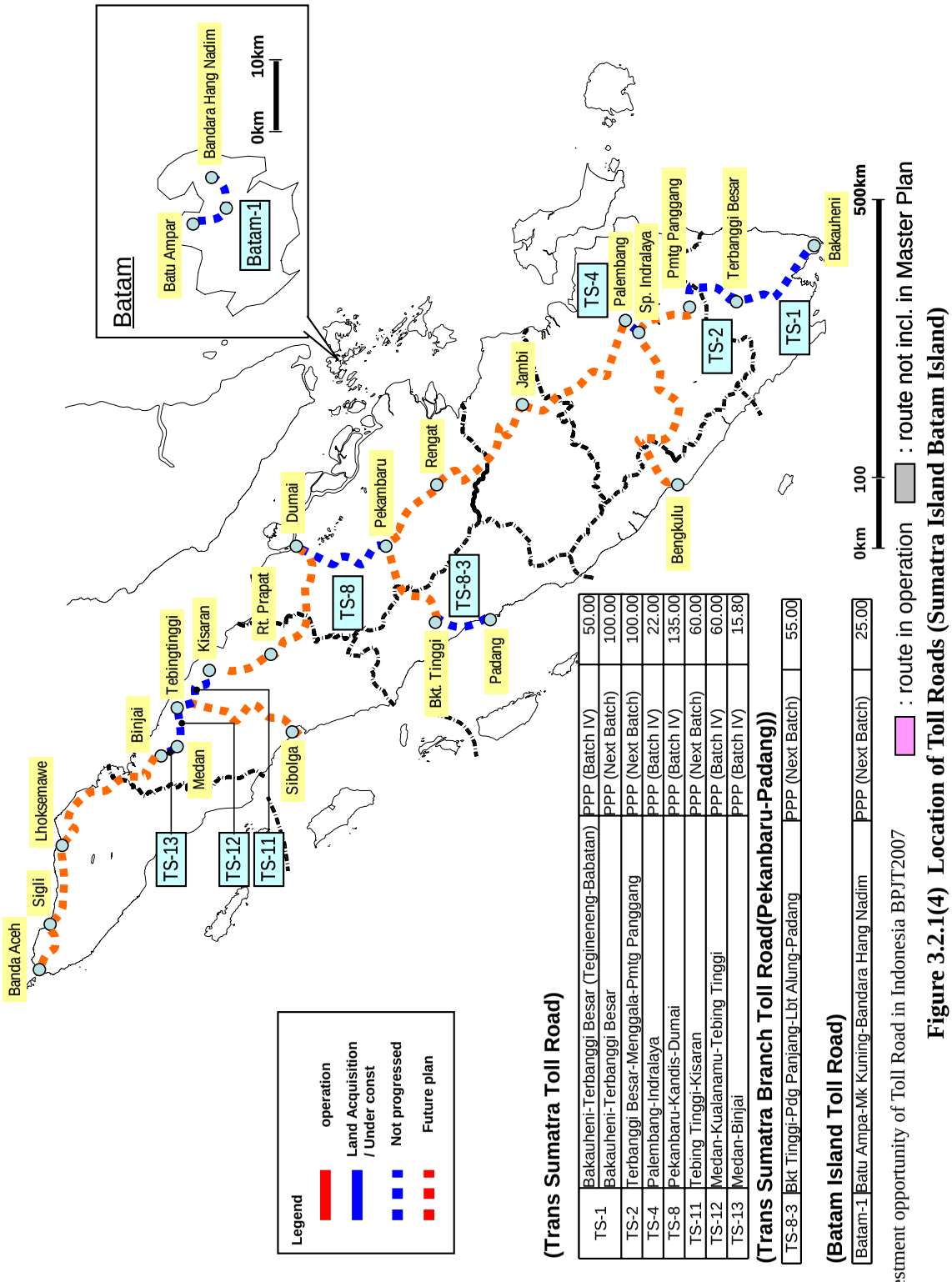
(Surabaya Area Toll Road)

S-1	Jembatan Surabaya-Madura	China Fund	5.4
S-2	Wau(Aloha)-Wonokromo-Tj. Perak	BOT	17.72
S-3	SS Waru-Bandara Juanda	BOT	12.80
S-4	Bandara Juanda - Tanjung Perak	PPP (Next Batch)	23.00

: route in operation
: route not incl. in Master Plan

Source : Investment opportunity of Toll Road in Indonesia BPJT2007

Figure 3.2.1(3) Location of Toll Road (Surabaya area)



(Trans Sumatra Toll Road)

TS-1	Bakauheni-Terbanggi Besar (Tegineneng-Babatan)	PPP (Batch IV)	50.00
	Bakauheni-Terbanggi Besar	PPP (Next Batch)	100.00
TS-2	Terbanggi Besar-Menggala-Pmtg Panggang	PPP (Next Batch)	100.00
TS-4	Palembang-Indralaya	PPP (Batch IV)	22.00
TS-8	Pekanbaru-Kandis-Dumai	PPP (Batch IV)	135.00
TS-11	Tebing Tinggi-Kisaran	PPP (Next Batch)	60.00
TS-12	Medan-Kualanamu-Tebing Tinggi	PPP (Batch IV)	60.00
TS-13	Medan-Binjai	PPP (Batch IV)	15.80

(Trans Sumatra Branch Toll Road(Pekanbaru-Padang))

TS-8-3	Bkt Tinggi-Pdg Panjang-Lbt Alung-Padang	PPP (Next Batch)	55.00

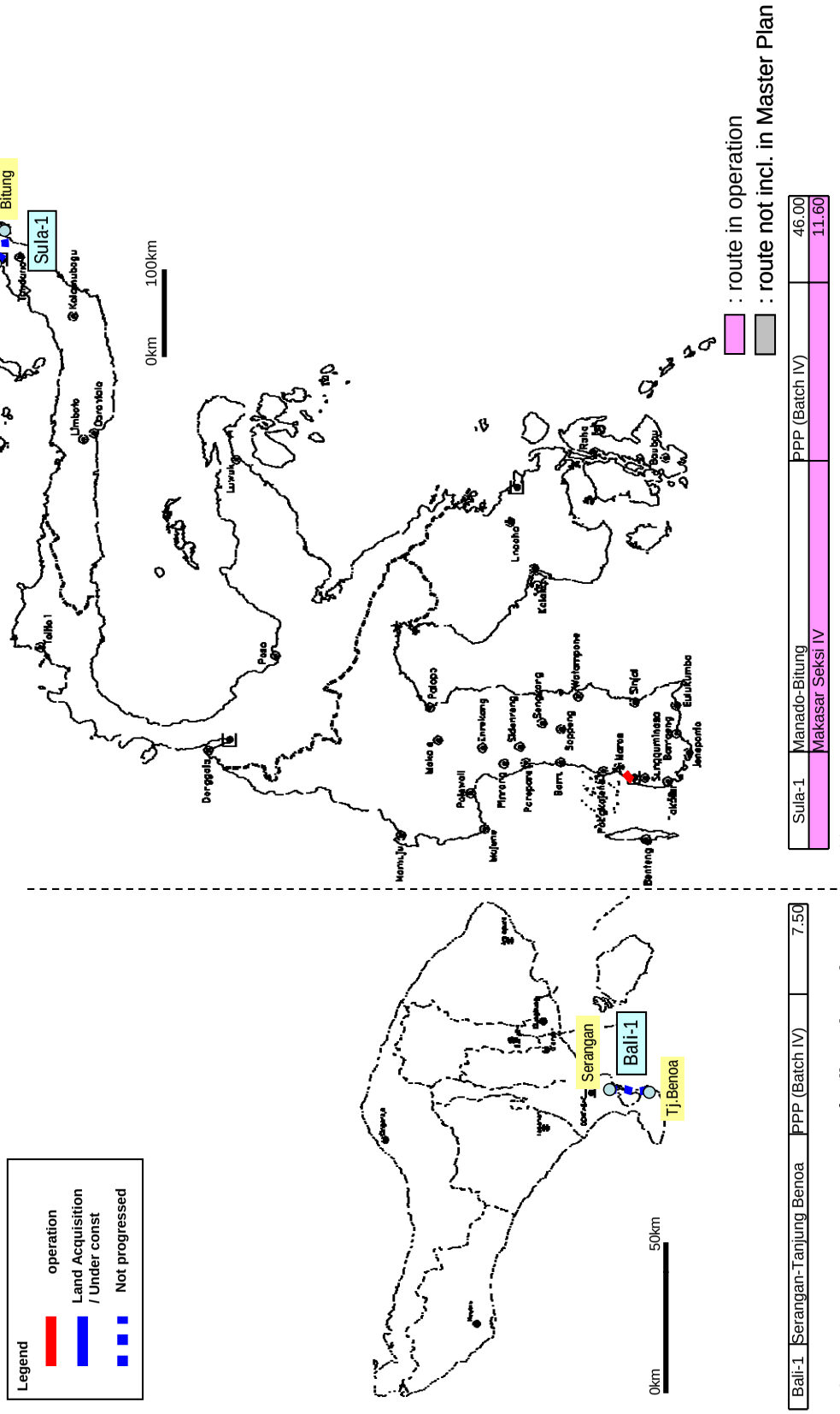
(Batam Island Toll Road)

Batam-1	Batu Ampa-Mk Kuning-Bandara Hang Nadim	PPP (Next Batch)	25.00

Source : Investment opportunity of Toll Road in Indonesia BPJT2007

Figure 3.2.1(4) Location of Toll Roads (Sumatra Island Batam Island)

Figure 3.2.1(5) Location of Toll Roads (Bali Island, Sulawesi Island)



Source : Investment opportunity of Toll Road in Indonesia BPJT2007

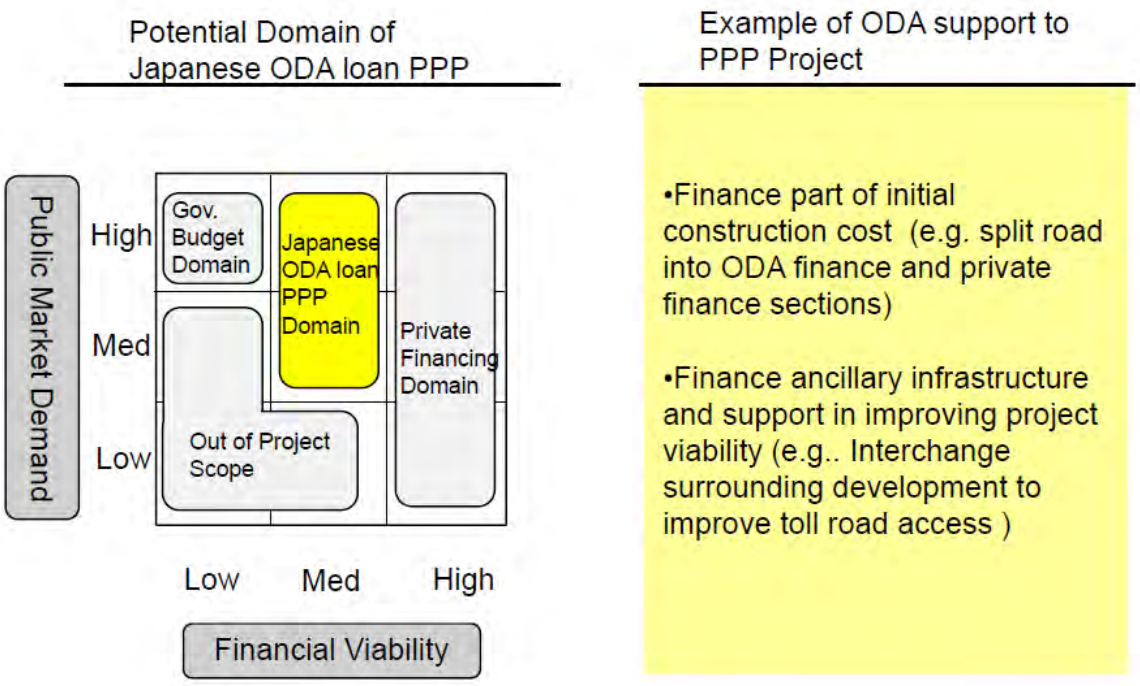
Figure 3.2.1(5) Location of Toll Roads (Bali Island, Sulawesi Island)

3.2.2 Method of Toll Road Development

Toll roads in Indonesia were initially developed with the use of government funds and foreign donor support. Afterwards, however, this was changed to the Build-Operate-Transfer (BOT) system that uses 100% private funds. Moreover, after development of most of the toll road projects were thrown back due to the monetary and economic crisis in 1998, it was transformed into the PPP system, which entails cooperation between the government and the private sector.

This study is executed for the purpose of promoting the participation of private companies in toll road projects, which has not been able to get private companies to participate in the BOT system that currently uses 100% private capital, catalyzed by the Japanese ODA loan.

The PPP projects are defined as projects that include private capital in the wide sense. Since highly profitable projects are executed fully by BOT, these are excluded from this study as shown in Figure 3.2.2-1. Particularly, projects that indicate medium financial viability values were targeted.



Source: JICA Study Team

Figure 3.2.2-1 Definition of PPP in this Study

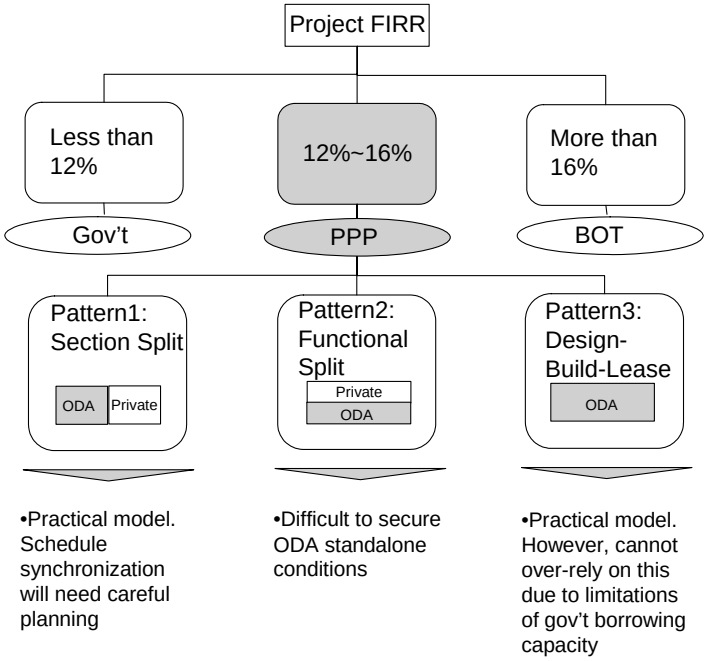
After the government issued a new policy concerning toll roads development in Article 43 (2) of the Road Law 38 /2004, this policy was later regulated by Article 19-23 of the Government Regulation 15 (Toll Road) /2005, which mandated the execution pattern corresponding to the financial viability of the projects.

More specifically, projects with FIRR less than 12% will be funded by government. Projects with FIRR between 12%~16%, on the other hand, will be considered a PPP project. Projects with FIRR more than 16% will not need

public funds and are considered candidates for 100% BOT.

Within PPP, various patterns of modality are possible for toll road development. There are three potential patterns with which to combine with Japanese ODA loan: Pattern1: Section split (or bundle), Pattern2: Functional split, and Pattern3: DBL.

PPP MODALITY, CATALYZED BY ODA



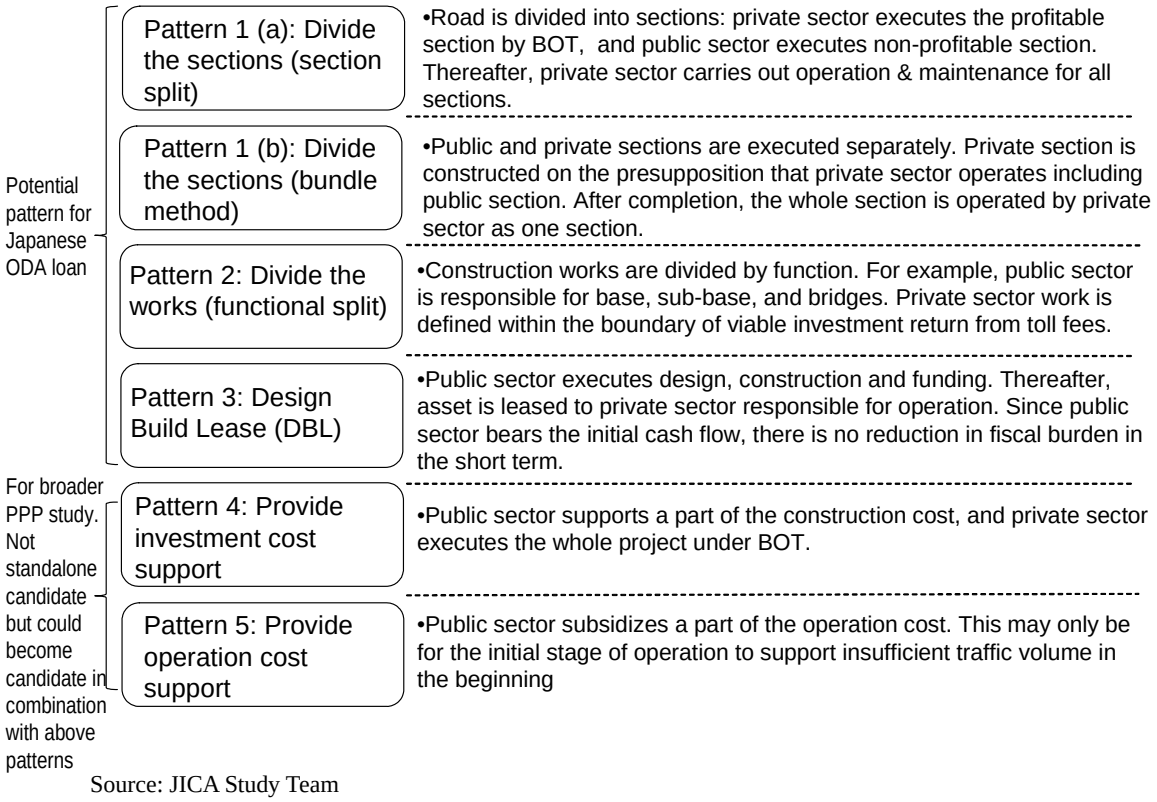
Source: Team Discussion

Figure 3.2.2-2 PPP Modality Catalyzed by ODA

There are also other patterns of PPP with public and private funds. For example, direct investment cost support and/or operation cost support could be provided by government to attract private investors.

Details of these patterns are as shown in Table 3.2.2-1. Moreover, advantages and disadvantages in each modality are shown in Table 3.2.2-2.

Table 3.2.2-1 PPP Modality for Toll Road Projects (example)



Source: JICA Study Team

Table 3.2.2-2 Merits and Demerits in each PPP Modality

Pattern No.	Modality	Merits	Demerits	Evaluation	
				Need of Indonesia	ODA Applicability
Pattern 1 (a)	Divide the section (Section split)	It is easy to apply to yen loan because can consist of stand-alones	Efficiency of implementation is low, because works are carried out separately.	△	○
Pattern 1 (b)	Divide the section (Bundle method)	As above	Public and private works are not completed at the same time.	△	○
Pattern 2	Divide the works (functional split)	Construction works can proceed efficiently without stopping.	Stand-alone cannot be done. The schedule adjustment between public and private is necessary.	△	△
Pattern 3	Design-Build-Lease(DBL)	The government can control everything.	Does not provide additional financing capacity.	△	○
Pattern 4	Provide investment cost support	Because private companies can be financially supported, it is easy to induce them to do the work.	The scope of the yen loan is not decided. It is not enforceable in the present accounting system in Indonesia.	△	×
Pattern 5	Provide operation cost support	The risk of operation in the early stage for private companies might decrease.	It is not enforceable in the present accounting system in Indonesia.	△	×

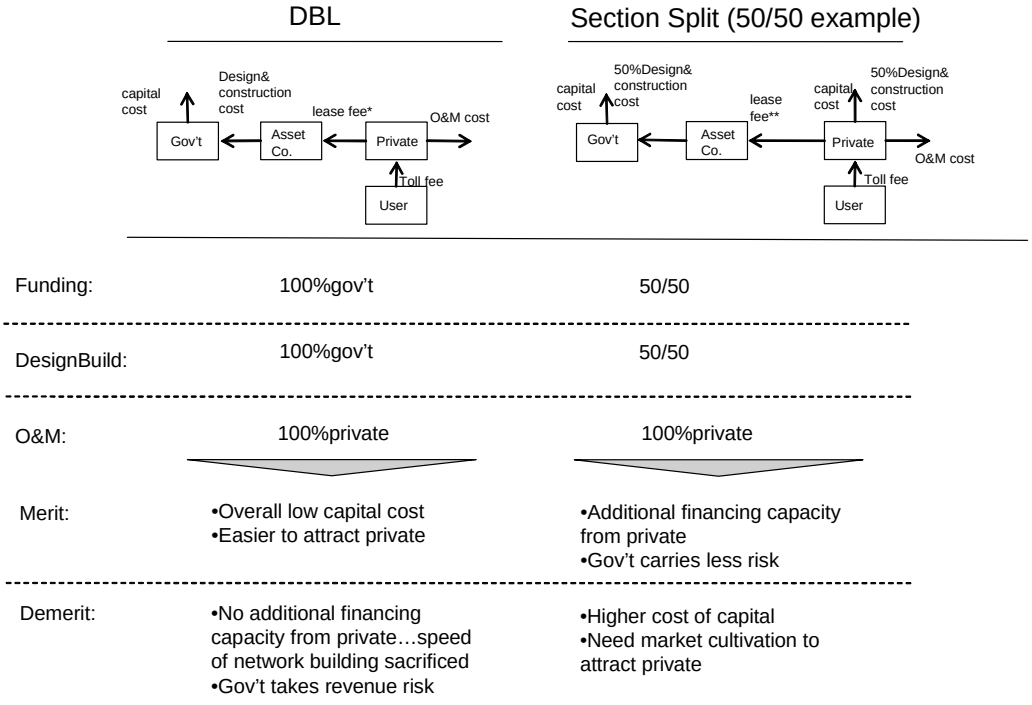
Evaluation ○:Good △:Fair ×:Bad

Source: JICA Study Team

As to the merits and demerits of each modality, the results of evaluation by both sides, the needs of Indonesia and ODA applicability, are shown in Table 3.2.2-2. This study will primarily focus on developing a section split (Pattern 1(a)) model case.

Within toll road planning, special attention is being given to DBL and section split. It is important to emphasize that both has positive and negative features, and neither is superior over the other. Therefore, selection of the PPP modality should be done with regards to characteristics of the project section. For example, it may not make sense to do a section split for a relatively short distance section. Such section should be for DBL. However, over-reliance on DBL may jeopardize the speed of the overall network build-up because of limited government budget and borrowing capacity.

COMPARISON OF "D-B-L" AND "SECTION SPLIT"



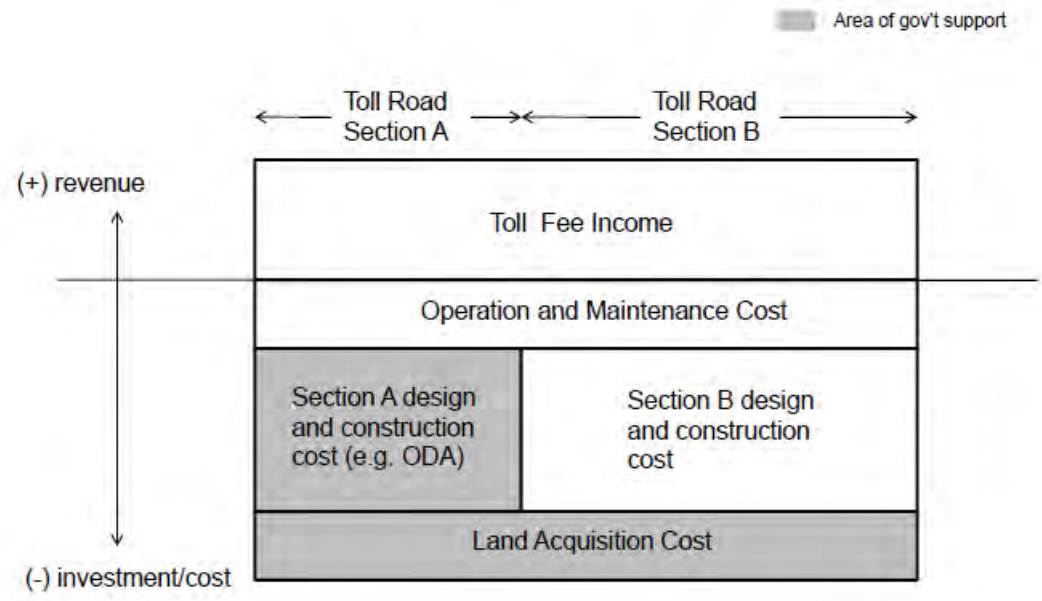
* toll- (O&Mcost+profit)
** %of construction cost. 0% could be decided if MOF agrees to 100%direct subsidy

Source: Team Discussion

Figure 3.2.2-3 Comparison of DBL and section split

In this study, details of the section split modality will be looked into.

The concept of the section split PPP scheme is shown in Figure 3.2.2-4. Land acquisition cost is shared by the Indonesian government, and later on Section A is constructed from public funds. On the other hand, Section B is constructed by the private sector and, will finally turn over the whole section to the private sector to do O&M of the toll road after this is completed.



Source : JICA Study Team

Figure 3.2.2- 4 Toll Road "Section Split" PPP Scheme

3.2.3 Possibility of Participation of Private Companies

This project is the first case of a PPP toll road project in Indonesia funded by Japan's yen loan. It also examined whether private companies are able to take part in both the public and private portions.

For that reason, a hearing was conducted on 17 - 18 June,2009 to explain the outline of the candidate projects and of the possibility of participation in this project. The hearing was attended by general contractors and the expressway companies,

Table 3.2.3-1 shows the different ways by which general contractors and expressway companies can possibly participate in the candidate projects. If the public portion becomes a STEP loan project, for which advanced civil engineering technology from Japan can be used, there is a possibility of participation for the general contractors. It is also assumed that in order to obtain the chance to be awarded contract for construction works, the general contractors should have investment in SPC for the private portions. On the other hand, the expressway companies investing in SPC can be involved to undertake O&M after the toll road is completed on the private portions.

Table 3.2.3-1 Possibility of Participation for Private Companies in PPP Toll Road Projects

Items	Feature of Route		
	Project Scale (Project Cost: Bil Rp)	**Profitability**	**Technical Difficulty**
1. Possibility of Participation of General Contractors			
1) Participation in Public Portion: Participation as a Contractor in Public Order Construction Work.			
Condition of participation	■More big project is desirable. ■There is no price competitiveness with other countries' companies in ordinary construction works?	■Profit is unrelated to the possibility of participation.	■Project that has high technical difficulty becomes STEP, and there is a possibility of participation (tunnel and special bridge etc).
Target route	■Pekanbaru-Kandis-Dumai (8,450) ■Bandara Juanda–Tj. Perak (5,030)	—	■Sukabumi-Ciranjang-Padalarang ■Cileunyi-Sumedang-Dawuan
2) Participation in Private Portion: Investment in SPC, Execution of Construction Work and O&M			
Condition of participation	■About 1,500 bil Rp is the limit in the investment amount by private under the present economy? ■Amount of investment is only for participation cost?	■Prerequisite that an enough profit (traffic demand) can be expected, and the risk is small.	■Necessary to advance the construction works smoothly without difficulty. ■Participation in O&M is negative.
Target route	■Batu Ampar-Mk Kuning-Hang Nadim (2,200) ■Pandaan-Malang (2,530)	■Pandaan-Malang ■Bandara Juanda–Tj. Perak (Eastern Section)	■Batu Ampar-Mk Kuning-Hang Nadim ■Pandaan-Malang ■Pekanbaru-Kandis-Dumai
2. Possibility of Participation of Toll Road Companies			
1) Participation in Private Portion: Investment in SPC, Execution of O&M			
Condition of participation	■About 1,500 bil Rp is the limit in the investment amount by private under the present economy? ■Amount of investment is only for participation cost?	■Prerequisite that an enough profit (traffic demand) can be expected, and the risk is small.	■There is a meaning of participation to O&M for the companies in the section needed the high technology (tunnels and structure etc..).
Target route	■Batu Ampar-Mk Kuning-Hang Nadim (2,200) ■Pandaan-Malang (2,530)	■Pandaan-Malang ■Bandara Juanda–Tj. Perak (Eastern Section)	■Sukabumi-Ciranjang-Padalarang ■Cileunyi-Sumedang-Dawuan

Note : Target routes are the candidates for second screening. (refer to sections 3.6 & 3.7)
Source: JICA Study Team's analysis

Table 3.2.3-2 shows the summarized conditions for participation of general contractors and expressway companies in these projects. The biggest concern is how to get the Indonesian government to take on the responsibility of land acquisition, which is one of the biggest problems on the toll road projects, and to provide guarantee for the risks that are currently assumed.

Thus, it is thought that the way of participation of the private companies in the Indonesian toll road PPP projects were opened by the establishment of an appropriate system for these problems by the Indonesian government in the future.

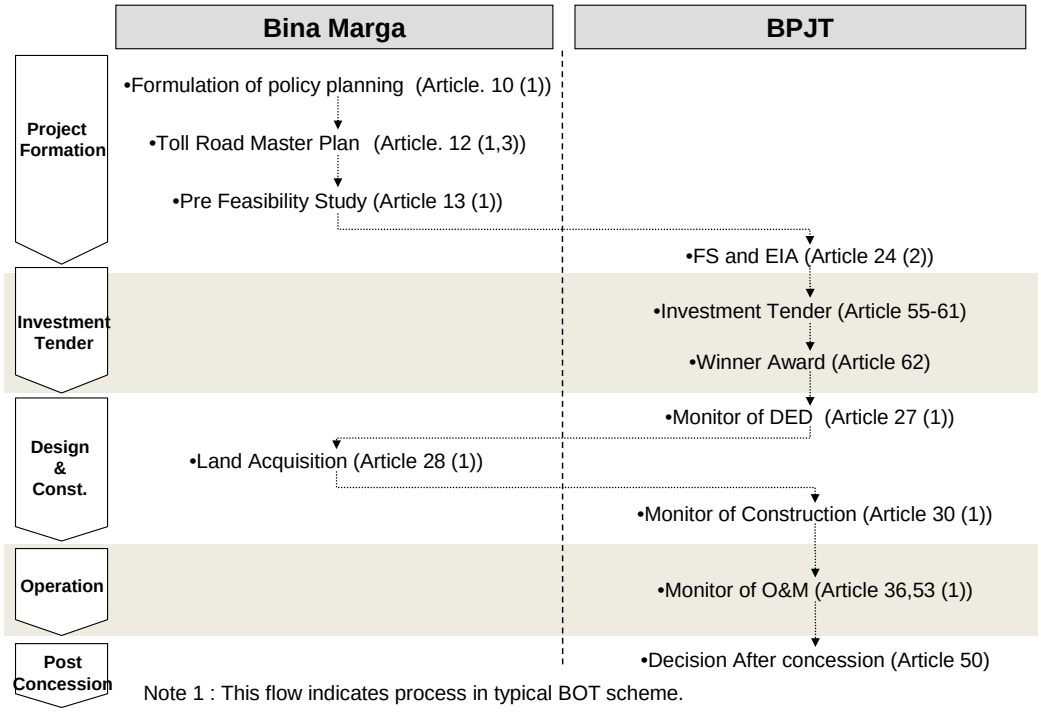
Table 3.2.3-2 Concept of Participation of Private Companies to Toll Road PPP Projects in Indonesia

Items	Details
Toll Road Companies	
Policy of participation in overseas projects	- If there are good projects, they want to positively participate - If the appropriate PPP systems are established and the condition that risks can be decreased is satisfactory, they want to participate.
Conditions for overseas project participation	- Government guarantees that the risk concerning land acquisition is necessary. - Subsidy of the government when traffic falls below target is necessary. - Risk of exchange rate fluctuation of toll revenue should be examined. - Risk regarding the quality of construction and defects of the public portions should be examined. - Since there is a possibility that the public portion will be delayed behind the private portion along the section split, construction of private portion starts when the completion of public portion is confident.
Method of overseas project participation	- There is participation by shareholders too. - It is possible to do O&M of the roads in SPC. - O&M might be done by using local companies. - Composition of SPC: trading companies as coordinators and fund raisers, local companies - It is desirable that Japanese companies be involved in both public and private portions.
General Contractors	
Concepts of overseas project participation	- It is necessary to solve the problem of land acquisition. - It is necessary to set an appropriate rate level. - There is a possibility of participation in the STEP projects - Meaning of participation of general contractors in SPC: Is it gained through construction work on the private portions or is the cost of the construction work made lesser as a member of SPC? - The possibility of participation of the general contractor in long-term O&M is uncertain.

Source: JICA Study Team

3.2.4 Organizations Related to Toll Road Development

Needless to say, Bina Marga and BPJT perform central roles in toll road development in Indonesia. With the enforcement of the Toll Road Law No.15/2005, BPJT was established as a regulatory body in toll road development in 2005. This law regulates the tasks and roles of BPJT, defining the task demarcation between BPJT and Bina Marga in the various project stages, as shown in Figure 3.2.4. As illustrated in the figure, Bina Marga undertakes all the tasks in the project formation period and the land acquisition task during the design & construction stage. BPJT generally is in-charge of all required tasks from the investment tender onwards, as a contracting agency.



Source: JICA Study Team

Figure 3.2.4 Task Demarcation between Bina Marga and BPJT

3.2.5 Legal Framework on Toll Road Development

Road Law No.38/2004 says, "A toll road business enterprise means that Business Enterprise shall be a legal body that deals with toll road projects." MPW Regulation No.15/2006 provides a similar definition. The regulation regards BPJT, which is referred to as Toll Road Regulatory Body in the Ministry Regulation, as a contracting agency.

Bina Marga considers BOT for projects with high FIRR (more than 16%), PPP for projects with medium FIRR (12% to 16%) and government funding for projects with low FIRR (less than 12%). It is clear from this definition that MPW sees BOT to be separate from PPP. In comparison, BAPPENAS sees BOT as part of PPP. Hence, the BAPPENAS PPP Book includes 100% BOT candidate projects.

The tender process regulated under Road Law No.38 and MPW Regulation No.15 is different from the process described by Perpres67. Therefore, if a toll road requires government guarantee or direct support, then it should comply with Perpres67 conditions and procedures.