

かわさき水ビジネスネットワーク
インドネシアにおける水道関係PPP事業に関する活動報告会

会議次第

日時：2014年10月6日（月）15時～16時30分

会場：横浜市水道局菊名ウォータープラザ 4階会議室

1. 開 会

2. 報 告

【講師】インドネシア公共事業省上水政策アドバイザー 菅原 繁 氏

- ・ インドネシア現地の水道分野の進捗状況
- ・ 関連法制度について
- ・ 今年度、次年度以降に向けての現地での調査やセミナー開催のスケジュール等

3. 質疑応答

4. 意見交換

5. そ の 他

6. 閉 会

【配付資料】

- ・ 出席者名簿
- ・ 資料1 「PUBLIC WORKS INFRASTRUCTURE THE WAY TO INVEST」
- ・ 資料2 「DIRECTORATE OF WATER SUPPLY DEVELOPMENT」
- ・ 資料3 「Investment Opportunities of Water Supply Sector in Indonesia」
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- ・ 資料7 「PDAM Sabang "Tirta Aneuk Laot" (Indicators Format_PDAM)」

- ・ 資料8 「MINISTER REGULATION OF PUBLIC WORKS」
- ・ 資料9 「List of Content (Rapermen)」
- ・ 資料10 「グレートガルーダ（写真）」
- ・ 資料11 「SUGGESTIONS TO ENHANCE PRIVATE SECTOR INVOLVEMENT」
- ・ 資料のダウンロード方法

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インドネシアにおける水道関係PPP事業に関する活動報告会 出席者名簿

ーかわさき水ビジネスネットワークー

日時: 2014年10月6日(月)15時～16時30分

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	経営管理部経営企画課	佐藤 純

PUBLIC WORKS INFRASTRUCTURE THE WAY TO INVEST



Investment Policy

Conducive Investment Environment in
Indonesia supported by Law & PPP
Regulations

PPP Regulation

Presidential Regulation No. 67/2005, and its
amendment No. 13/2010 &
No. 56/2011
(PPP in Infrastructure Development)

Minister of National Development
Planning Agency Regulation No. 4/2010
(Guidelines for PPP in Infrastructure
Development)

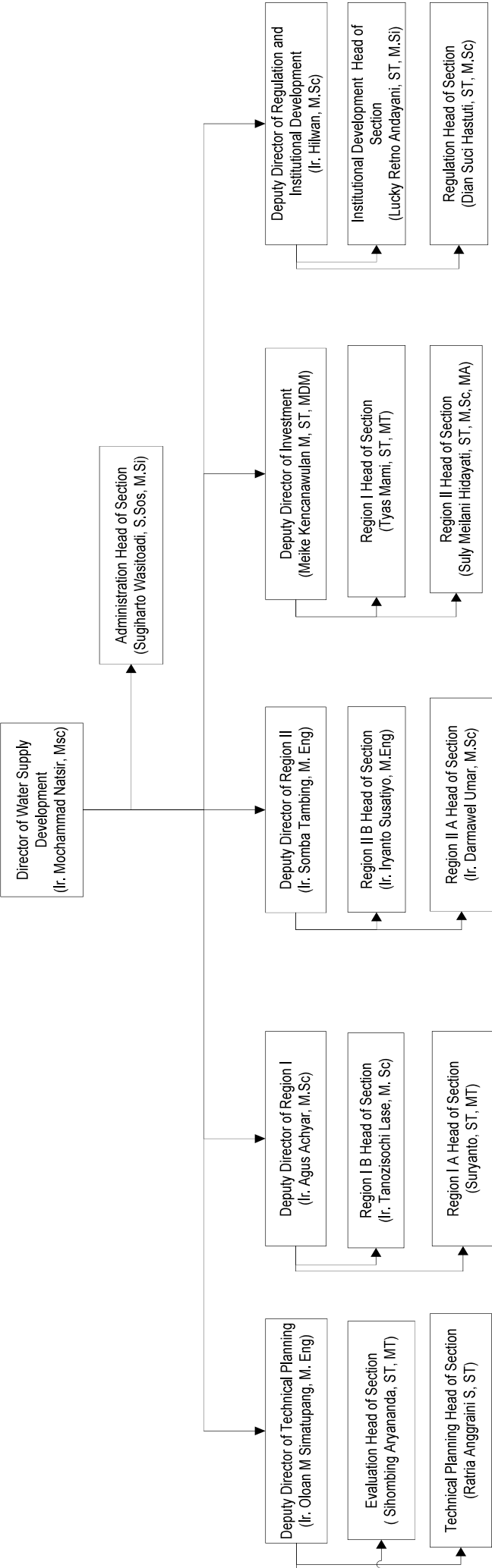
Water Supply Sector

Act No. 7/2004
(Water Resources)

Government Regulation No. 16/2005
(Water Supply System Development)

Minister for Public Works Regulation
No. 12/2010
(Guidelines on Business Cooperation
for Water Supply System
Development)

DIRECTORATE OF WATER SUPPLY DEVELOPMENT



Investment Opportunities of Water Supply Sector in Indonesia



Ministry of Public Works

BPPSPAM

National Supporting Agency for Water Supply System Development

Investment Opportunities of Water Supply Sector in Indonesia

May - 2014

BPPSPAM
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MAKASSAR MUNICIPALITY (Maccini Sombala)

Modality
RUOT

Capacity
200 lps

Estimated Project Cost
IDR 70 billion

Scope of Works

- uprifting wtp from 100 lps to 400 lps
- water treatment plant 3 x 500 lps
- intake 2x600 lps
- NRW reduction

Status

- contract was signed on 16 February 2012 with PT. Multi Eka Utama

GRESIK REGENCY (Legundi)

Modality
BOT

Capacity
200 lps

Estimated Project Cost
IDR 47,50 billion

Scope of Works

- construction of intake 200 lps
- construction of WTP 200 lps
- reservoir 1,000 m³

Status

- contract was signed on 25 May 2012 with PT. Dewata Bangun Tirta
- construction of Intake & WTP
- installation of Primary Distribution Network was completed and selling bulkwater

GRESIK REGENCY (Driyorejo)

Modality
BOT

Capacity
400 lps

Estimated project
86,2

Scope of Works

- uprifting of intake to 400 lps
- uprifting of WTP from 50 lps to 150 lps
- WTP 100 lps and reservoir 2,500 m³
- booster pump in mojarati and morowadi

Status

- contract was signed on 1 Oct 2012 with PT. Druptadi Agung Lestari.
- WTP 150 lps has been operated
- installation and uprifting of main distribution network are in progress

SERANG REGENCY (Cleruk)

Modality
BOT

Capacity
375 lps

Estimated Project Cost
IDR 163,9 billion

Scope of Works

- transmission, distribution, and reticulation network
- reservoir 5,500 m³

Status

- contract was signed in December 2013 with PT. Serana Catur Tirta Kelola



TANGERANG MUNICIPALITY

Modality
BOT PLUS

Capacity
1,500 lps + rehab 420 lps

Estimated Project cost
IDR 1,063 billion

Scope of Works

- transmission, distribution, and reticulation network
- water treatment plant 3 x 500 lps
- intake 2x600 lps

Status

- contract was signed in 18 February with PT. Moya Indonesia
- construction of intake, transmission line, WTP and reservoir

TANGERANG REGENCY

Modality
BOT

Capacity
3,000 lps

Estimated Project Cost
IDR 120 billion

Scope of Works

- intake and transmission line
- construction/rehabilitation wtp 3,000 lps
- transmission, distribution, and reticulation network

Status

- contract was signed in January 2014 with PT. Traya Tirta Cidarene
- distribution pipe

EASTERN MAKASSAR MUNICIPALITY

Modality
BOT

Capacity
600 lps

Estimated Project Cost
IDR 185,793 billion

Scope of Works

- construction of tallo river dam
- intake and water treatment plant 600 lps
- primary and secondary transmission network
- land acquisition

Status

- contract was signed on 6 July 2013 with PT. Moya Indonesia

MAKASSAR MUNICIPALITY (Samba Opu)

Modality
RUOT

Capacity
1,600 lps

Estimated Project Cost
IDR 150 billion

Scope of Works

- water treatment plant 1,000 lps and uprifting to 3,000 lps
- reservoir 10,000 m³

Status

- contract was signed on 16 February 2012 with PT. Bahana Cipita

PUBLIC PRIVATE PARTNERSHIP

READY TO OFFER

WESTERN SEMARANG WATER SUPPLY SYSTEM

PPP Modality
BOT (Build Operate Transfer)
Capacity
3,500 lps
Estimated Project Cost
IDR 824 billion
Scope of Works
• intake 1,050 lps
• water treatment plant 1,050 lps
• raw water transmission pipe 2.2 km
• wtp - reservoir transmission pipe
Status
• raw water exploitation licence has been obtained
• market sounding has been done on 2 July 2013

LAMONGAN REGENCY

PPP Modality
Concession
Capacity
200 lps
Estimated Investment
IDR 166 billion
Scope of Works
• intake at 2 location (Floodway and Rowa Jabang)
• raw water transmission pipe 1.5 km
• main reservoir 3,000 m³
• additional reservoir (1,000 m³ & 2 x 500 m³)
Status
• pre qualification in March 2014

BEKASI MUNICIPALITY (Pondok Gede)

PPP Modality
Concession
Capacity
300 lps
Estimated Project Cost
IDR 210 billion
Scope of Works
• distribution network 40 km
• reservoir 3,000 m³
• water treatment plant 300 lps
Status
• willing for raw water exploitation licence and allocation assurance.

SOUTHERN BALI

Capacity
1,000 lps
Estimated Project Cost
IDR 2,189 billion
Scope of Works
• water treatment plant (WTP) 1,000 lps
• Reservoir
• Transmission pipe
• Operation and maintenance of WTP

POTENTIAL

JATIGEDE REGIONAL WATER SUPPLY SYSTEM

PPP Modality
BOT (Build Operate Transfer)
Capacity
3,500 lps
Estimated Project Cost
IDR 1,504 billion
Scope of Works
• water treatment plant 3,500 lps
• raw water transmission pipe 7 km
• reservoir 5,000 m³
Status
• the DAM construction has been completed in 2014

KARANG-SEPONG WATER CONVEYANCE

PPP Modality
BOT (Build Operate Transfer)
Capacity
10,000 lps
Estimated Project Cost
IDR 6,900 billion
Scope of Works
• water treatment plant 10,000 lps
• transmission pipe 90 km
Status
• the DAM construction will be completed in 2017 and will be operated in 2018

ON GOING (CONSTRUCTION AND MANAGEMENT)

TANGERANG REGENCY

PPP Modality
Concession
Capacity
900 lps
Estimated Project Cost
IDR 503 billion
Scope of Works
• water treatment plant 900 lps
• transmission line 180 km
• reservoir construction 10,000 m³
Status
• construction of 900 lps WTP was completed
• target customer 70/31 house connection
• total registered customer 68,5 % (46,447)
• total served customer 36,1 % (26,820)

ON GOING (TENDER PROCESS)

BANDAR LAMPUNG MUNICIPALITY

PPP Modality
BOT
Capacity
500 lps
Estimated Project Cost
IDR 919 billion
Scope of Works
• intake 500 lps
• raw water transmission pipe 27 km
• construction of 2 WTPs @ 250 lps
Status
• draft of guarantee agreement is published

UMBULAN WATER SUPPLY

PPP Modality
BOT (Build Operate Transfer)
Capacity
4,000 lps
Estimated Project Cost
IDR 2,068 billion
Scope of Works
• intake 4,000 lps
• water treatment plant 92 km
• pumping station 2 unit, 4,000 lps
Status
• supporting documents to acquire VGF is done

B to B READY TO OFFER

NORTHERN LOMBOK REGENCY

PPP Modality
Concession
Capacity
50 lps
Estimated Project Cost
IDR 12,8 billion
Scope of Works
• water treatment plant 50 lps
• reservoir 500 m³
• procurement and installation of subsea pipeline
Status
• preparation of board of directors decree
• preparation of procurement document

SERANG REGENCY (Cipasaaran)

PPP Modality
Concession
Capacity
500 lps
Estimated Project Cost
IDR 286 billion
Scope of Works
• water treatment plant 500 lps
• transmission network 20 km
• reservoir 3,000 m³
Status
• source of raw water from cidanau and cipasaaran river

DEPOK MUNICIPALITY

Capacity
100 lps
Estimated Project Cost
IDR 128 billion
Scope of Works
• intake
• water treatment plant 100 lps
• distribution network
• reservoir 1,000 m³

BUSINESS TO BUSINESS

BOGOR MUNICIPALITY

PPP Modality
BOT
Capacity
600 lps
Estimated Project Cost
IDR 144,3 billion
Scope of Works
• intake and pre-sedimentation unit 600 lps
• water treatment plant 300 lps and upgrading to 600 lps (2018)
• transmission network
• reservoir 6,000 m³ (2012) and 6,000 m³ (2018)
• main distribution network
Status
• procurement of business entity
• waiting for raw water exploitation licence and allocation assurance.

PALANGKARAYA MUNICIPALITY

PPP Modality
Concession
Capacity
300 lps
Estimated Project Cost
IDR 62,5 billion
Scope of Works
• water treatment plant 300 lps
• reservoir
• main distribution network

SINGKAWANG MUNICIPALITY

PPP Modality
BOT
Capacity
600 lps
Estimated Project Cost
IDR 1,35 billion
Scope of Works
• intake optimization and WTP rehabilitation
• water treatment plant 300 lps
• reservoir 5,000 m³

POTENTIAL

BEKASI REGENCY (Jatibening)

PPP Modality
BOT (Build Operate Transfer)
Capacity
150 lps
Estimated Project Cost
IDR 111 billion

BEKASI REGENCY (Mustika Jaya)

PPP Modality
BOT (Build Operate Transfer)
Capacity
200 lps
Estimated Project Cost
IDR 1,44 billion

ON GOING (TENDER PROCESS)

BOGOR REGENCY (Bojora Gede)

PPP Modality
BOT
Capacity
600 lps
Estimated Project Cost
IDR 398 billion
Scope of Works
• water treatment plant 600 lps
• transmission pipe 8 km
• distribution pipe 600 km
• reservoir 3,000 m³

DELLSERDANG REGENCY (Pahumbak)

PPP Modality
BOT
Capacity
1,000 lps
Estimated Project Cost
IDR 183 billion
Scope of Works
• intake (Pahumbak River)
• water treatment plant 1,000 lps
• transmission network
• reservoir 10,000 m³

TANAH BUMBU REGENCY

PPP Modality
RUOT
Capacity
150 lps
Estimated Project Cost
IDR 12 billion
Scope of Works
• upgrading of water treatment plant 150 lps
• transmission/distribution pipe 7 km
• reservoir 2,000 m³
Status
• negotiation/ finalization of Cooperation Agreement

MEDAN MUNICIPALITY

PPP Modality
BOT
Capacity
1,000 lps
Estimated Project Cost
IDR 440 billion
Scope of Works
• water treatment plant 1,000 lps
• transmission pipe 8 km
• reservoir 1,000 m³
Status
• procurement of Business Entity

JATILUHUR WATER SUPPLY SYSTEM

PPP Modality
BOT
Capacity
5,500 lps
Estimated Project Cost
IDR 1,670 billion
Scope of Works
• intake 5,600 lps
• 38,5 km of transmission pipe ND 1,800 mm
• construction of 6 offtake reservoirs
Status
• Mutual agreement to establish Special Purpose Vehicle (SPV) is agreed upon
• Optimization of SPV funding

BEKASI MUNICIPALITY (Teluk Buyung)

PPP Modality
BOT
Capacity
200 lps
Estimated Project Cost
IDR 41 billion
Scope of Works
• water treatment plant 200 lps
• reservoir 1,500 m³
Status
• procurement of Business Entity

ON GOING (CONSTRUCTION AND MANAGEMENT)

SUBANG REGENCY

PPP Modality
BOT
Capacity
50 lps
Estimated Project Cost
IDR 13,4 billion
Scope of Works
• intake 280 lps and raw water transmission
• distribution pump and reservoir 600 m³
• distribution pipe 500 m
Status
• contract was signed in July 2013 with PT. Belgis Enviratama Segihara,
• preliminary requirements fulfillment

KOTAWARINGIN TIMUR REGENCY

PPP Modality
BOT
Capacity
280 lps
Estimated Project Cost
IDR 54,529 billion
Scope of Works
• intake 280 lps and raw water transmission
• water treatment plant 2x100 lps and 2x50 lps
• rehab and upgrading from 2x25 to 2x 40 lps
• reservoir 4,000 m³, pumping station, and supplementary building
Status
• contract was signed on 8 July 2013 with PT. Bestindo-Inagreen consortium

BANJAR REGENCY AND BANJARBARU MUNICIPALITY (Irian Banjar)

PPP Modality
BOT
Capacity
500 lps
Estimated Project Cost
IDR 71,5 billion
Scope of Works
• water treatment plant 2x250 lps
• reservoir of transmission network
• reservoir 4,000 m³ and pumping station
• supplementary building
Status
• contract was signed on 1 September 2012 with PT. Drupadi Aging Lestari,
• WTP has been operated for 150 lps

BEKASI REGENCY

PPP Modality
BOT
Capacity
1,000 lps
Estimated Project Cost
IDR 187 billion
Scope of Works
• uprating phase 160 lps + ultrafiltration 200 lps
• water treatment plant 500 lps
Status
• contract was signed on 18 August 2013 with PT Moya Indonesia



Table B. PPP operation in the Water Supply Sector

資料 4

PPP Modalities and City/Region	Total Investment	Concession Period	Investor	Remark
BOT Medan - WTP 500 l/sec - Transmission pipes	U\$\$ 5 mio	25 years (2000 - 2005)	SUEZ + TLM	Full Operation
Batam Concession - Production Capacity : 3000 l/sec - Piping	U\$\$ 100 mio	25 years (1996 - 2021)	PT Adhya Tirta Batam	The source of bulk water from Estuary Reserve Duriangkang
BOT Jambi - WTP ; 100 l/sec - Operational in 1998	U\$\$ 2 mio	15 years (1996 - 2021)	PT. Noviantama	- Full Operation
Part Palembang Concession - WTP ; 200 l/sec - Piping	U\$\$ 5 mio	25 years (1998 - 2023)	PT Adhya Tirta Sriwijaya	In sub region Sukarama, in 2004 has been improved to be 120 l/sec. - Full Operation
KSO Pekanbaru JO Existing + 600 l/s (new)	U\$\$ 10 mio	15 years (2005 - 2020)	PT KTDP + WFI	Full Operation
BOO Serang Utara - Production Capacity : 150 l/sec - Transmission Pipes 40 km	U\$\$ 5 mio	1993	PT Sauh Bahtera Samudra	Full Capacity, Regional Government gets the royalty of 5% Tariff is determined by concessionaire
Western Part of Jakarta Concession - Production Capacity : 6200 l/sec - Transmission Pipes	U\$\$ 225 mio	25 years (1997 - 2022)	PT Palyja + PT. Astratel	Full Capacity
Eastern Part of Jakarta Concession - Production Capacity : 6500 l/sec - Transmission Pipes	U\$\$ 225 mio	25 years (1998 - 2023)	PT Aetra Air Jakarta	- Acuatico - Acquisited from Thames
O & M on Contract Cisadane - Operation of WTP 3000 l/sec		25 years (1998 - 2023)	PT Tirta Cisadane/ PT Traya	Bulk Water to Jakarta and Tangerang
Consession in Tangerang City - WTP 50 l/sec - Transmission Pipes	U\$\$ 2,5 mio	25 years (1997 - 2022)	Bintang Heiten Jaya/ Gadang Berhad	Residential area
BOT Lippo Karawaci - WTP 50 l/sec - Transmission Pipes	U\$\$ 10 mio	25 years (1999 - 2024)	Lippo Karawaci Full Private	Residential area, (Tariff is determined by concessionaire) Potable Water
BOO Bintaro Jaya - Production Capacity : 100 l/sec - Distribution Pipes	U\$\$ 10 mio	1990	Pembangunan Jaya	Residential area, Fully Private (Tariff is determined by concessionaire), start from year 1990
Consession Cikampek - Improvement : 60 l/sec operated of 2000 SR	U\$\$ 0,5 mio	25 years (2000 - 2025)	PT WATTS	Full Operation
BOO Bekasi (Kemang Pratama) - Production capacity 50 l/sec - Piping	U\$\$ 10 mio	1993	PT Kemang Pratama	Residential area, Fully Private. Concessionaire determines tariff start from year 1993

15.	BOO Hunday Industrial Estate - Water Supply System 50 l/sec	US\$ 5 mio	1994	PT Hunday	In the Industrial estate Fully private (Concessionaire determines tariff) start from year 1994
16.	BOO Kota Legenda - Water Supply System 25 l/sec (WTP + Pipes)	US\$ 2,5 mio	1995	PT Cikarang Permai	Residential area Fully private (Concessionaire determines tariff)
17.	BOO Bukit Indah Cikarang - WTP 150 l/sec - Piping	US\$ 10 mio	1998	PT Bukit Indah Full Private	Residential and industrial areas, start from year 1998
18.	Subang - BOT : 50 l/sec - Distribution pipe	US\$ 2,5 mio	20 years (2005 - 2025)	PT MLD	Full Operation
19.	Up Rating Gajah Mungkur (400 he 600 l/sec	US\$ 2 mio	20 years (2006 - 2026)	PT Tirta Gajah Mungkur	In Operation
20.	BOT Bawean - WTP 250 l/sec + Distribution	US\$ 10 mio	2004	APAC INTI Fully Private	Industrial, PDAM has right 50 l/sec start from year 2004
21.	BOT Kabupaten Sidoarjo - Production capacity : 200 l/sec + 450 l/sec	US\$ 2,5 mio US\$ 3 mio	(1998 - 2023) (2005 - 2030)	PT Vivendi PT Hanarida	Full Operation
22.	BOT Badung - Production capacity : 300 l/sec - Supply to Nusa Dua and South Bali region	US\$ 10 mio	25 years (1995 - 2020)	PT Tirta Artha Buana	Full Operation A plan for Phase II
23.	BOT Samarinda Construction of - WTP : 400 l/sec Transmission line	US\$ 5 mio	25 years (2004 - 2029)	PT WATTS	Full Operation

Prakarsa July 2014

Figure 1: PPP Success Stories in Indonesia's Water Sector

No	Region/Area	PPP Modalities	Capacity (litres per second)	Private Partner/Operator	Time Period	B2Btype
1	Jakarta (Western part)	Full Concession	6,200	PT PALYJA & Astratel	1998 - 2023	Private 100%
2	Jakarta (Eastern part)	Full Concession	6,500	PTAETRA AIR-JAKARTA	1998 - 2023	Private 100%
3	Kota Medan	BOT for WTP	500	PT Tirta Iyonnaise Medan (TIM)	1999 - 2024	JV Iyonnaise 85% : PDAM 15%
4	Kab Deli Serdang - Patumbak	BOT for WTP	1,000	PT Drupadi Agung Lestari	2012 - 2032	Private 100%
5	Kab Deli Serdang - Mariendal	BOT for WTP	1,000	PT Drupadi Agung Lestari	2012 - 2032	Private 100%
6	Lubuk Pakam - Sumut	ROT for WTP	100	PT Tirta Sumut	n/a	JV WRI 55% : PDAM 45%
7	Batam	Full Concessionaires	3,000	PT Adhya Tirta Batam (ATB)	1995 - 2020	Private 100%
8	Kota Jambi	BOT for WTP	200	PT Noviantama Corporation (Novco)	1998 - 2013	Private 100%
9	Pekanbaru	Joint Operation	600	PT KTDP & PT WFI (Netherlands)	failed in 2008	Joint cooperation
10	Palembang	Full Concession	200	PT Adhya Tirta Siwijaya (AIS)	2000 - 2025	Private 100%
11	Bintaro - Jaya	BOO for WTP and pipe networks	100	PT Pembangunan Jaya	n/a	Private 100%
12	BSD City	BOT for WTP and pipe networks	150	PT Bumi Serpong Damai	n/a	Private 100%
13	Kabupaten Serang (Timur)	BOT for WTP and pipe networks	600	PT Sarana Tirta Cahaya Kencana (STCK)	2009 - 2028	Private 100%
14	Kabupaten Serang	BOO for WTP and pipe networks	100	PT Sarana Tirta Cahaya Kencana (STCK)	2008 - 2027	Private 100%
15	Kabupaten Serang (Utara)	BOO for WTP and pipe networks	150	PT Saub Bahtera Samudera (SBS)	1996 - 2016	Private 100%
16	Kota Serang	BOT for WTP and pipe networks	600	PT Tirta Serang Madani (TSM)	2010 - 2024	JV FMB 90% : PDAM 10%
17	Kota Cilegon	BOO for WTP and pipe networks	600	PT Krakatau Tirta Industri (KTI)	n/a	Private 100 %
18	Kota Maja - Kab Lebak	ROT for WTP and pipe networks	100	PT Bangun Tirta Lebak (PT CRM as sponsor)	2012 - 2031	JV CRM 90% : PDAM 10%
19	Kota Tangerang	Full Concession	50	PT Bintang Hetien Jaya	2009 - 2028	Private 100%
20	Kota Tangerang	BOO for WTP	100	PT Multi Agung Transco	n/a	Private 100%
21	Kota Tangerang	BOO for WTP	30	PT Glamaya Subur	n/a	Private 100%
22	Kota Tangerang	ROT for WTP	420	MOYA Asia Ltd. - PT Moya Indonesia	2012 - 2031	Private 100%
23	Kota Tangerang	BOT for WTP and pipe networks	1,500	MOYA Asia Ltd. - PT Moya Indonesia	2012 - 2031	Private 100%
24	Kota Tangerang	BOO for WTP and pipe networks	500	MOYA Asia Ltd. - PT Moya Indonesia	2012 - 2031	Private 100 %
24	Kabupaten Tangerang	O&M for WTP	3,000	PT Tirta Cisdane	1998 - 2013	Private 100%
26	Kabupaten Tangerang	RUOT for WTP	1,500	PT Tirta Kencana Cahaya Mandiri (TKCM)	n/a	Private 100%
27	Kabupaten Tangerang	Full Concessionaires (Solicited PPP)	900	PT AETRA Air Tangerang	2008 - 2033	Private 100%
28	Lippo Karawaci	BOO for WTP and pipe networks	250	PT Lippo Karawaci	n/a	Private 100%
29	Kabupaten Bekasi	BOO for WTP and pipe networks	50	PT Kemang Pratama	n/a	Private 100%
30	Kabupaten Bekasi	BOT for WTP and pipe networks	200	MOYA Asia Ltd. - PT Moya Indonesia	2012 - 2031	Private 100 %
31	Kota Legenda - Bekasi	BOO for WTP and pipe networks	25	PT Cikarang Permai	n/a	Private 100%
32	Kab Bekasi (Tambun Selatan)	Full Concession	20	PT Putra Alvia Pratama	n/a	Private 100 %
33	Kawasan Industri MM2100 Cibitung	BOO for WTP and pipe networks	100	MM2100 Industrial Town	n/a	Private 100 %
34	Bukit Indah Cikarang Industrial Estate	BOO for WTP and pipe networks	150	PT Bukit Indah	n/a	Private 100%
35	Kabupaten Bekasi (Cikarang Barat)	Full Concession	30	PT Watertech Estate Cikarang	n/a	Private 100 %
36	Kabupaten Bekasi (Cikarang Utara)	Full Concession	20	PT Sri Pertiwi Sejati	n/a	Private 100 %
37	Kawasan Industri Hyundai Cikarang	BOO for WTP and pipe networks	50	PT Hyundai Inti Development	n/a	Private 100%
38	Kawasan Industri Jababeka Cikarang	Full Concession	300	PT Jababeka Infrastruktur	n/a	Private 100 %
39	Kawasan Industri Lippo Cikarang	BOO for WTP and pipe networks	250	PT Lippo Cikarang, Tbk	2001	Private 100 %
40	Kabupaten Bekasi (Kota Deltamas)	Full Concession	25	PT Pembangunan Deltamas	n/a	Private 100 %
41	Kabupaten Karawang (Cikampek)	Full Concession	200	PT WAIS	n/a	Private 100%
42	Kabupaten Subang	O&M for WTP	40	PT Mitra Lingkungan Dutaconsult (MLD)	2002 - 2012	Private 100%
43	Kota Semarang	RUOT for WTP	600	PT Tirta Gajah Mungkur	2005 - 2020	Private 100%
44	Kabupaten Semarang (Bawen)	BOT for WTP and pipe networks	250	PT Sarana Tirta Ungaran	2005 - 2024	Private 100%
45	Kabupaten Sidoarjo (Kec Taman)	RUOT for WTP and pipe networks	600	PT Hanarida Tirta Birawa (Gadang Bhd)	2004 - 2024	Private 100%
46	Kabupaten Sidoarjo (Kec Taman)	BOT for WTP	250	PT Taman Tirta Sidoarjo (Gadang Bhd)	1999 - 2029	Private 100%
47	Kabupaten Gresik - Kec Legundi	BOT for WTP and pipe networks	200	PT Dewata Bangun Tirta	2012 - 2036	Private 100%
48	Kabupaten Gresik - Kec Krikilan	ROT for WTP and pipe networks	100	PT Drupadi Agung Lestari	2012 - 2036	Private 100%
49	Kab Gresik and Kota Surabaya (part)	Full Concessionaires	400	PT Citraland	n/a	Private 100 %
50	Kota Surabaya (part)	Full Concessionaires	300	PT Pakuwon	n/a	Private 100 %
51	Kab Gresik and Kab Lamongan (part)	BOO for WTP and pipe networks	600	PT Semen Gresik	n/a	Private 100 %
52	Kabupaten Bandung - Bali	BOT for WTP	300	PT Tirta Arha Buana Mulia	1993 - 2013	JV Private 65% : PDAM 35%
53	Kabupaten Gianyar - Bali	RUOT for WTP	200	PT Bali Bangun Tirta (Berjaya Sdn Bhd)	2007 - 2027	Private 100%
54	Banjarmasin	Built, Lease and Transfer	500	PT Adhi Karya	n/a	n/a
55	Banjur Baru	BOT for WTP and pipe networks	500	PT Drupadi Agung Lestari	2013 - 2034	Private 100%
56	Samarinda	BOT for WTP	400	PT WAIS	n/a	Private 100%
57	Makassar (Panaikang)	ROT for WTP	1,000	PT Traya Tirta Makassar	2007 - 2021	Private 100%
58	Makassar (Macinni Sombala)	ROT for WTP	400	PT Multi Enka Makassar	2011 - 2030	Private 100%
59	Makassar (Somba Opu)	ROT/BOT for WTP and pipes	3,000	PT Bahana Cipta	2011 - 2030	Private 100%
60	Manado	ROT/O&M for WTP and pipes	250	PT Water Laboratory Nusantara (WLN)	2008 - 2023	JV WMD 51% : PDAM 49%
61	Ambon	ROT/O&M for WTP and pipes	100	PT Water Laboratory Nusantara (WLN)	2009 - 2024	JV WMD 51% : PDAM 49%

Source: Website of PSPAM, Survey CRM (2012) and internet research. Project status as of June 2013.

KEY:
 BOT= Build Operate Transfer
 WTP= Water Treatment Plant
 ROT= Rehabilitate Operate Transfer

BOO= Build Operate Own
 O&M = Operations and Maintenance
 RUOT= Rehabilitation Upgrading Operate Transfer

PDAM Sabang "Tirta Aneuk Laot"						
Table of Performance Category						
Remarks	2009		2011		2012	
	Condition	Point	Condition	Point	Condition	Point
A. FINANCIAL ASPECT						
1. Rentability						
a. ROE	0.0%	2	-13.1%	1	-5.1%	1
b. Operation Ratio	2.4	1	2.6	1	2.7	1
2. Liquidity						
a. Cash Ratio	229.5%	5	11.0%	1	28.7%	1
b. Billing Effectivity	95.1%	5	48.8%	1	67.5%	1
3. Solvability	7096.9%	5	2323.7%	5	4979.1%	5
Weight of Performance-Financial Aspect	0.87		0.37		0.37	
B. SERVICE ASPECT						
1. Service Coverage	71.0%	4	75.0%	4	100.0%	5
2. Customer Growth	15.7%	5	-5.0%	1	8.1%	5
3. Level of Problem Solving	100.0%	5	100.0%	5	100.0%	5
4. Customer Water Quality	0.0%	3	50.0%	3	71.4%	4
5. Domestic Water Consumption	19.7%	2	19.7%	2	18.6%	2
Weight of Performance-Service Aspect	0.90		0.70		1.03	
C. OPERATION ASPECT						
1. Production Efficiency	100.0%	5	52.9%	1	24.9%	1
2. Level of Water Loss	31.5%	3	28.9%	4	26.1%	4
3. Service Operational Time/ day	22	5	20	4	8	1
4. Pressure Customer Connection	72.1%	4	81.4%	5	63.4%	4
5. Replacement Water Meter	6.8%	2	2.3%	1	3.0%	1
Weight of Performance-Operational Aspect	1.35		1.06		0.76	
D. HUMAN RESOURCES ASPECT						
1. Total Ratio peg/1000 customer	9.9	3	10.8	2	10.0	2
2. Employee Training and Education Ratio/ Competency Improve	9.1%	1	11.8%	1	15.7%	1
3. Cost of Training and Education of Employee Cost	6.3%	3	5.2%	3	2.8%	2
Weight of Performance- Human Resources Aspect	0.37		0.23		0.26	
Total Performance	3.49		2.43		2.41	
Category	Health		Uhhealth		Unhealth	

ADDITIONAL INFORMATION

Cost Estimates (Rp/m3)	1,780 Long-Term Debt (Rp.000)	0
HPP/ Basic Cost with standard NRW (Rp/m3)	4,577 Total Equity (Rp.000)	16,609,515
HPP/Basic Cost with Real NRW (Rp/m3)	4,956 Net Profit after Tax (Rp. 000)	847,279
HPP out of Depreciation/Amortization and Interest Costs (Rp/m3)	3,952 Ratio of General Administration Cost : Total Profit (%)	31%
Difference (Rate Estimates-HPP with standard NRW)	2,797 Installed Capacity (L/sec)	232
Difference (Rate Estimates-HPP with Real NRW)	3,176 Production Capacity (L/sec)	58
Difference (Rate Estimates-HPP out of Depreciation and Interest)	2,172 Total Customer (Unit SL)	5,084
Chemical Cost (Rp/m3)	0 Total Population in Administration Area (people)	31,861
Energy Cost (Rp/m3)	1,222 Total Population in Service Area (people)	25,334
Maintenance Cost (Rp/m3)	345,900 Reserved Population (people)	25,334
Total Permanent Asset (Rp. 000)	9,329,702 Total Employee (person)	51
Total Asset (Rp. 000)	16,949,937 Employee Cost Estimates (Rp/staff/month)	3,340,054
Current Debt (Rp. 000)	340,422 Restructurization Debt Status	No Long-Term
	(regarding to Ministry of Financial Regulation)	Debt to
		Central

Sources data : Performance Audit Report of BPKP on 2012 (Financial Audited by KAP)

MINISTER REGULATION OF PUBLIC WORKS

Number 18/PRT/M/2007 6 of June 2007

On IMPLEMENTATION OF WATER SUPPLY SYSTEM DEVELOPMENT

MINISTRY OF PUBLIC WORKS

DIRECTORATE GENERAL OF HUMAN SETTLEMENT

ATTACHMENT

- | | |
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| ATTACHMENT 2 | : PREPARATION FOR FEASIBILITY STUDY GUIDELINE OF WATER SUPPLY
SYSTEM DEVELOPMENT |
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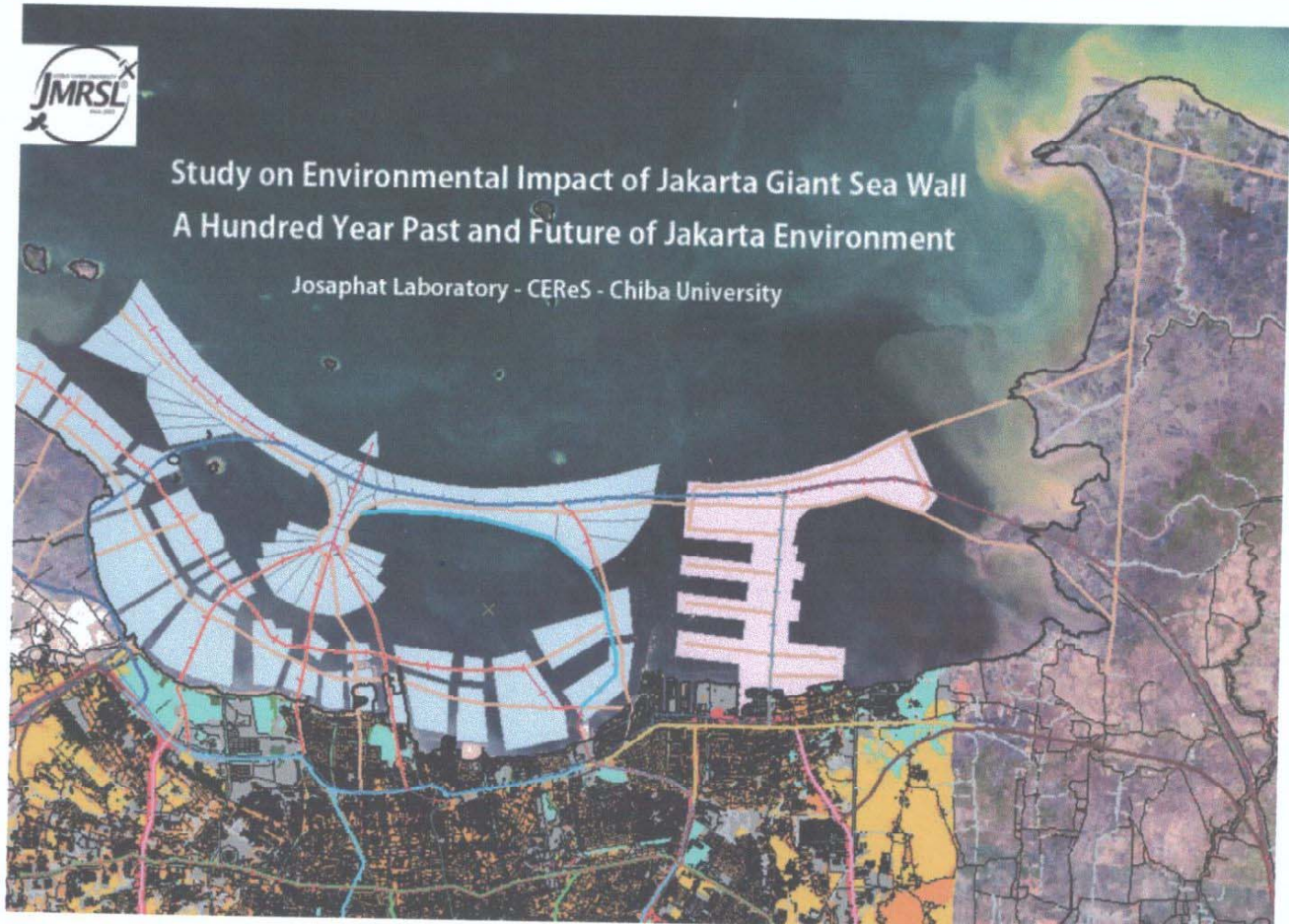
ATTACHMENT SECTOR HUMAN SETTLEMENT

Attachment A Coefficient of Employee and Material

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Bibliography



SUGGESTIONS TO ENHANCE PRIVATE SECTOR INVOLVEMENT

1. Project cost for with private investment considerably high. Therefore government Guarantee to reach affordable tariff also high. In some cases, government guarantee even bigger than private investment. Suggestion: to reduce project cost, THE PRIVATE investor should consist of; Investor, industry, grant from government (from investor country), consultant.
2. Scale of the project should vary from middle to high project cost. Lots of project proposals from Indonesia are considered to be middle project cost.
3. Water Tariff adjustment should be made annual basis and automatically. Indonesia has experienced in electricity tariff (PLN government electrical company).
4. PPP Procurement process is too long and exhausted. It's need a new policy to reduce the process without suffers the fair competition and accountability.
5. PPP preparation process should be publicly opened and should reveals why the water supply project require private participation. This may avoid disputes in the future.
6. We propose Technical assistance should cover the issues as stated in number 1 to 5 either proposing new policy framework or workshop material based on best practices in other country.

Oloan Simatupang/Head of Subdirector Technical Planning/Dit PAM

October 1, 2014