第３章　上位目標の達成度

第 3 章　上位目標の達成度

3-1　期待される上位目標

本プロジェクトの上位目標は「下水道管理に関する行政能力が向上する。」であり、その指標は「下水道工事が発注される。」である。

表 3-1　本プロジェクトの上位目標と指標

上位目標	指標
下水道管理に関する行政能力が向上する。	下水道工事が発注される。

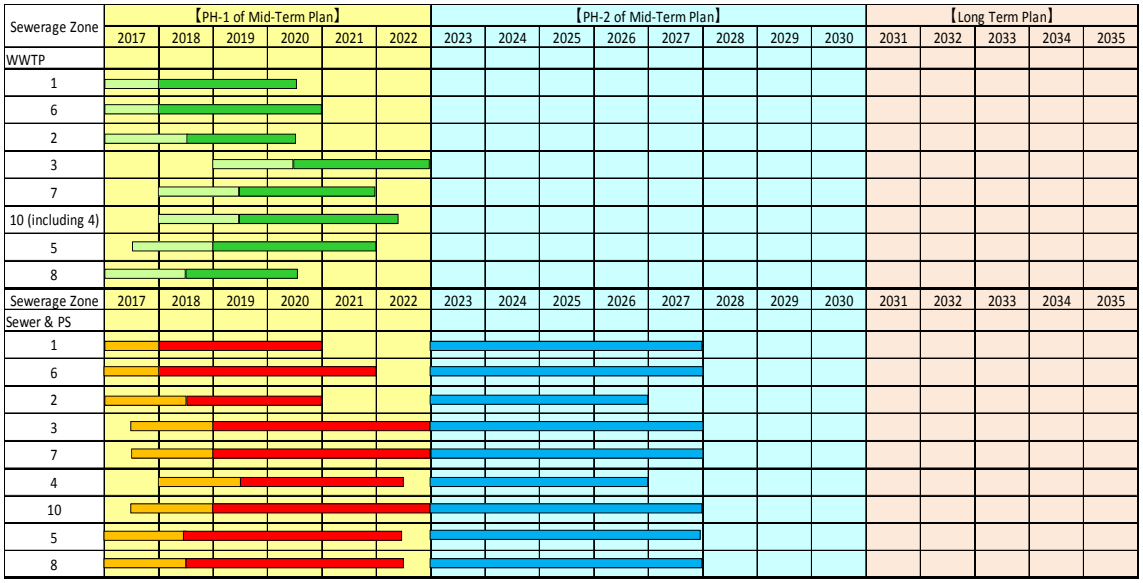
3-2　上位目標を達成するためのインドネシア側の PO（Plan of Operation）および実施体制（Implementation Structure）

本プロジェクト終了後には、DKI ジャカルタにおける下水道事業の実施体制が強化される。プロジェクト開始前には、各組織の組織規程や業務内容が確定していなかった状態から、プロジェクトを経て、組織および業務内容を規定した政府法令の詳細規則が発行されるまでになり、下水道事業を進める上で各組織が明確な職務に従事できるようになる。
また、下水道事業に係る各種研修、中期下水道整備計画案、条例案の作成支援を経て、下水道事業を計画するための職員の能力が強化されている。

上記より、上位目標である「下水道管理に関する行政能力が向上する。」を達成するためには、本プロジェクトで策定した中期整備計画等必要な情報を用いて、本プロジェクトで習得した知識・経験を用い、整備地域を確定し、入札を経て、「下水道事業が発注される」ことが期待される。

これには、外部条件にある「工事予算が確保される。」ことが重要な要素となるものの、工事予算が確保されれば、現時点で想定している以下の「表 3-2　DKI の短期・中期下水道整備計画（Acceleration Plan)」、または「表 3-3　DKI の短期・中期下水道整備計画（段階的整備計画)」の計画に沿って、工事が進み、その中で「下水道工事が発注される」ものと考えられる。

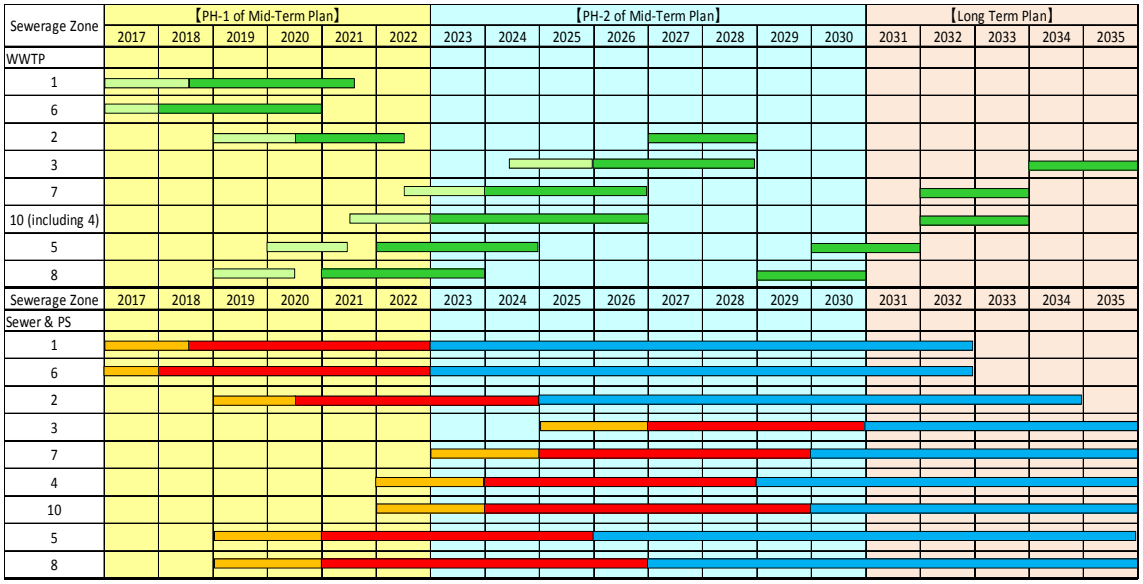
表 3-2　DKI の短期・中期下水道整備計画（Acceleration Plan）



: Detailed Design of WWTP
: Construction of WWTP
: Detailed Design of Sewer and Pumping Stations
: Construction of Sewer (First Step: Interceptor Pipe)
: Construction of Sewer (Second Step: Secondary & Tertiary pipe and house connection)

Source：JICA Consultant Team based on the MLIT report

表 3-3　DKI の短期・中期下水道整備計画（段階的整備計画）



: Detailed Design of WWTP
: Construction of WWTP
: Detailed Design of Sewer and Pumping Stations
: Construction of Sewer (First Step: Interceptor Pipe)
: Construction of Sewer (Second Step: Secondary & Tertiary pipe and house connection)

Source：JICA Consultant Team based on the MLIT report

なお、実施体制としては、第 1 章、第 2 章で、各部署の業務分掌が確認できており、それを基に、下水道整備事業が行なわれていく。

3-3　上位目標達成へ向けての提言

上位目標を達成するための提言を以下に示す。

上位目標である「下水道管理に関する行政能力が向上する。」を達成する上で、その指標となる「下水道工事が発注される。」ことに加え、下水道の整備・運営に係る以下の点についても、並行して配慮していく必要がある。

(1) 下水道を整備し運営していくための組織とその役割を明確化すること。
下水道に投資していく機関（Project implementation unit)、下水道サービスを提供していくための維持管理機関（O&M unit）および公平で効率的な下水道経営を保証するための委員会（Regulatory body/Sewerage committee）が例示できる。

(2) 下水道経営を確実にするための下水道財政制度、下水道料金および下水道会計方式を確立すること。
下水道の公的役割・私的役割を明確にして下水道への税金の投入、住民の負担能力（Affordability）に配慮した料金の水準および制度、経営の自立性を確立するための会計制度が考えられる。

(3) 下水道の整備・運営に係る説明責任と透明性を確保する経営計画（Operation plan）を策定すること。
説明責任と透明性（Accountability and transparency）を示すためには、Performance indicator（以下「PI」という)と経営計画（Sustainability Report）が有効である。

(4) 下水道の整備に必要な人材を確保し育成すること。
適正技術を開発・評価して適用していくための技術開発と研修を充実させることによって、下水道整備・運営のノウハウと最適技術の開発に寄与する。

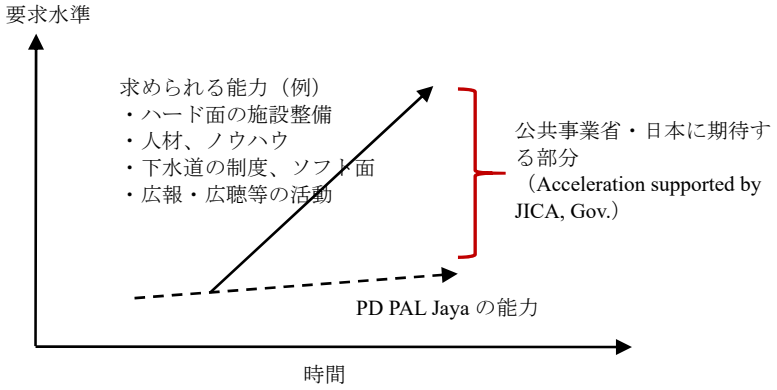
(5) 下水道を整備し適切に管理していくために、下水道管路施設情報（Sewer data base）が必要である。
貴重な地下空間を最大限に活用し、都市の公共サービスを提供するために、関連機関が集まった地理情報システムが有効である。

(6) DKI ジャカルタの期待する日本の技術支援を通じて、「下水道管理に関する行政能力」を向上させること。
PD PAL Jaya は、会社（State-owned Company）であり、利益を上げることが求められてお

り、補助金の受入れ、下水道の整備、セプティックタンク汚泥サービスの制度、財政、技術、広報・広聴の全てに亘って改善しなければならないと自覚している。しかし、PD PAL Jaya 単独では、求められる要求水準に対して、次の経営環境に対して、ハード面の施設整備能力および人材、ソフト面の行財政制度の策定能力等のノウハウが不足していることを課題としている。

・大規模下水処理場の運転・経営のノウハウがない、人材が退職していく。
・中核となる人材を育成しなければならない、人を増やさなければならない。
・自立した経営が不可欠である。

Zone-1 処理区が建設されると、下水道経営のための人材が早急に必要となる。PD PAL Jaya の運営能力は、ジャカルタ下水道の要求に応えきれないので、中長期の観点から、下水道管理に関する行政能力を強化しなければならない。JICA・JS[29]の支援を受けて、人材育成・研修、技術開発を進めて行きたいという意向が示された。



出典：専門家チーム

図3-1　PD PAL Jayaが期待する下水道管理に関する行政能力の強化方策（概念）

本プロジェクトを通じてPD PAL Jayaの問題意識が具体化されたため、中長期の取り組みを通じて下水道の整備・運営管理能力の強化が期待できることを確信している。

3-4　プロジェクト終了後から事後評価までのモニタリング計画

プロジェクト終了後から事後評価までのモニタリング計画においては、上記 3-2 で説明した通り、これから行われる下水道整備事業に係る計画は出来あがっているため、それに基づ

[29] 地方共同法人日本下水道事業団（Japan Sewage Works Agency：JS）

きマイルストーンを設定し、モニタリングを行っていくことが必要とされる。
以下に、マイルストーンをまとめる。

表 3-4　DKI の短期・中期下水道整備計画（Acceleration Plan）マイルストーン

期間		短期計画		中期計画						
事業内容 ＼ Zone		1	6	2	3	7	4	10	5	8
下水処理場	詳細計画	2017	2017	2017	2019	2018	2018		2017	2017
	建設	2018	2018	2018	2020	2019	2019		2019	2018
下記①と②	詳細計画	2017	2017	2017	2017	2017	2018	2017	2017	2017
① 幹線管路・ポンプ場	建設	2018	2018	2018	2019	2019	2019	2019	2018	2018
② 面整備管・各戸接続工事	建設	2023	2023	2023	2023	2023	2023	2023	2023	2023

表 3-5　DKI の短期・中期下水道整備計画（段階的整備計画）マイルストーン

期間		短期計画		中期計画						
事業内容 ＼ Zone		1	6	2	3	7	4	10	5	8
下水処理場	詳細計画	2017	2017	2019	2024	2022	2021		2020	2019
	建設	2018	2018	2020	2026	2024	2023		2022	2021
下記①と②	詳細計画	2017	2017	2019	2025	2023	2022	2022	2019	2019
① 幹線管路・ポンプ場	建設	2018	2018	2020	2027	2025	2024	2024	2021	2021
② 面整備管・各戸接続工事	建設	2023	2023	2025	2031	2030	2029	2030	2026	2027

第 4 章　教訓と課題

第 4 章　教訓と課題

本プロジェクトを通じて確認した教訓と課題について、以下にまとめる。

(1) これからの技術移転の体制作り

下水道整備・経営に関わる組織が分散しており、単独の組織に対する技術移転だけでなく、関係者間の理解を深めることも工夫が必要であった。さらに、カウンターパート機関は、下水道法および行財政制度を検討する専任の職員は配置されず、既存の組織での業務を兼務して本プロジェクトに関わっているため、個人的には多忙であり、さらにインドネシアにおいては異動が多いため、技術・知識の定着を計る上での工夫を必要とした。

本プロジェクトでは、上記状況に対処するために、日本および諸外国の下水道の整備・経営に関する経験やノウハウをセミナーおよびワークショップ形式で繰り返し、情報提供した。具体的な科目を例示すると、下水道計画、事業経営、維持管理計画、建設・維持管理の財源の確保、広報・広聴（住民理解）など下水道整備・経営に関わる実務者に必要なノウハウを伝えた。

インドネシア側の異動や組織改編は継続されるため、このような技術移転の機会を継続して修得できる体制作りが必要とされる。

(2) 技術移転方法

本プロジェクトでは、カウンターパート個人での専任としての活動参加が期待できなかったために、組織への技術移転といった対応をとることとした。その技術移転方法では、スモールセミナー、ディスカッション、特別セミナー、ワークショップと様々な形式で多くの学びの場を提供した。また、セミナーにおいても発表を聞くだけではなく、そこでのディスカッションも大切にし、カウンターパートと豊富に対話をすることができた。カウンターパートとの議論が進み、専門家チームとの間で実際的なディスカッションが増えた。

また、プロジェクト終盤に合宿型ワークショップを開催し、中期下水道整備計画や条例に関して関連機関の職員が集まりディスカッションを行い、中期計画及び条例の骨子について合意形成することができた。このワークショップを通じて、関連機関との情報共有や意思統一を図ることが重要かつ効果的であることを再認識するとともに、プロジェクトの初期からこのような機会を設けることが必要であったと感じた。

本プロジェクトを通じて、下水道事業のソフト面の能力強化に寄与することができたことを確信する。上記の通り、ディスカッションを通じた研修は効果的であり、さらには関係

者機関を集めたワークショップはより効果的であったことがわかった。このような横断的に関係者機関を集めたワークショップの開催のための調整業務を継続的に行うことが望まれる。

(3) 適切なタイミングでの目標設定の変更

本プロジェクト実施中、下水道条例案策定までのプロセスが当初計画よりも長期にわたることが分かった。課題として、その時点で PDM の変更を行い、適切なタイミングでの目標設定の変更を行うべきであったことが挙げられる。

また、本プロジェクトでは、専門家チームはカウンターパートに対して専門分野別に技術研修を行うべくシャトル派遣という実施体制であったが、中期整備計画および下水道条例策定については、カウンターパートが主体で策定することが前提であったものの、実際は専門家チームに多大な期待がかかり、カウンターパートからは専門家チームの派遣期間が短いとの声も聞こえた。課題として、このようにカウンターパートの要望とプロジェクトの活動方針が異なっていることを初期の段階で見極め、適切な PDM の変更を検討することも必要であったと考えられる。

(4) 邦人専門家の現地派遣形式

現地カウンターパートとの信頼関係構築が鍵となる技術プロジェクトにおいて、従来であれば、専門家の長期現地滞在しての活動が望まれる。ただし、今回に限っては、カウンターパートが本プロジェクトで行う業務に加え、その他たくさんの業務を抱えている中で、まとまった期間集中的に本プロジェクトに時間を割くことが現実的に難しかったため、シャトル型の派遣形式は、本プロジェクトにおいて適正であったと思われる。そのような中、数日間集中しての作業できる体制を整えるべく工夫した、合宿型のワークショップの開催というのはカウンターパートへの技術移転において非常に効果的であった。

(5) OJT の必要性

下水道の実務は、OJT で課題解決に臨むやり方が実際的である。実務で直面しないと観念的な理解に終始し、マニュアル・要綱類の作成に結び付くのが難しい。下水道事業が本格化すると現場では様々なノウハウが必要とされ、我が国の経験や技術交流が生きたものとなる。

そのため、今後、事業の進捗度に応じて実務ベースでの技術移転も望まれる。

(6) ジャカルタの社会・経済情勢に合致した下水道整備手法の提案

インドネシアでは、下水道整備・運営の基本となる下水道法が制定されていない。他の分野では、例えば、河川分野では日本の河川環境管理の概念を入れた法律改定を参考に、早

期に法制度が整備されている。また、諸外国では、下水道法、上下水道事業を規定する体系だった法律が整備され、概念的には我が国と異なるものの、法治国家としての行財政制度を確立している。

バリ州では、上位となる汚水管理法が制定されていない中で、水環境管理（排水基準)、下水道事業者の任命および下水道料金制度を制定することで、下水道事業の運営を可能としている。

ジャカルタにおいては、下水道法・条例の体系を理解することが重要であるが、国情の違いから、複雑な法制度と組織改定に伴って、下水道事業者（PIU：Project Implementation Unit）が、Dinas PU（公共事業局）－ PD PAL Jaya－Dinas Sumber Daya Air と、再三変更されてきた。このため、関係部局での一貫した組織運営がなされず、下水道整備・経営のノウハウが散在している。

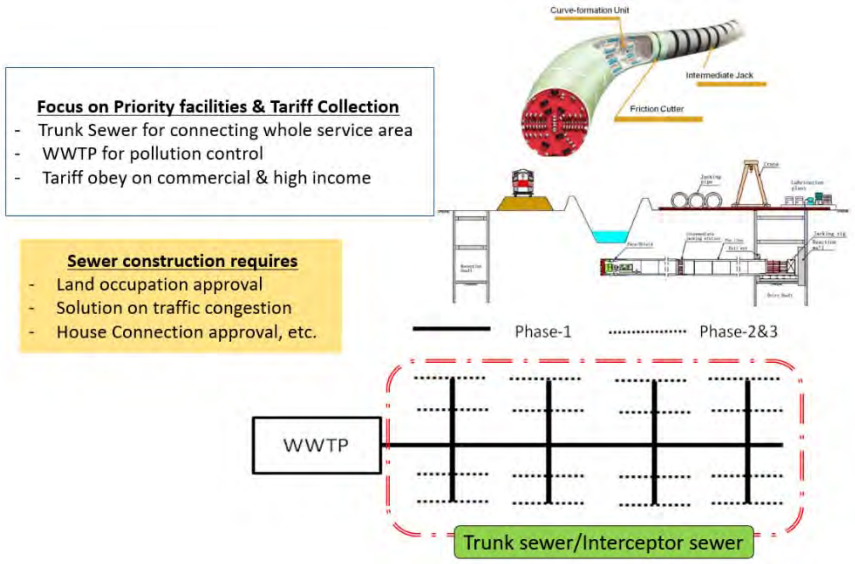
このような背景の中、ジャカルタは、急速に都市化が進展し民間セクターの経済力が充実している。下水道整備とりわけ分流式下水道の整備は、時間と財源を要し、交通渋滞などの社会的混乱を強いる。以下に述べる早期に実施可能な下水道整備手法を組み合わせて、中長期の目標を達成することが期待される。

1）幹線管渠・下水処理場の優先整備
2）民間開発プロジェクトとの連携
3）セプティックタンク汚泥の定期収集
4）小規模下水処理施設の適切な運転管理

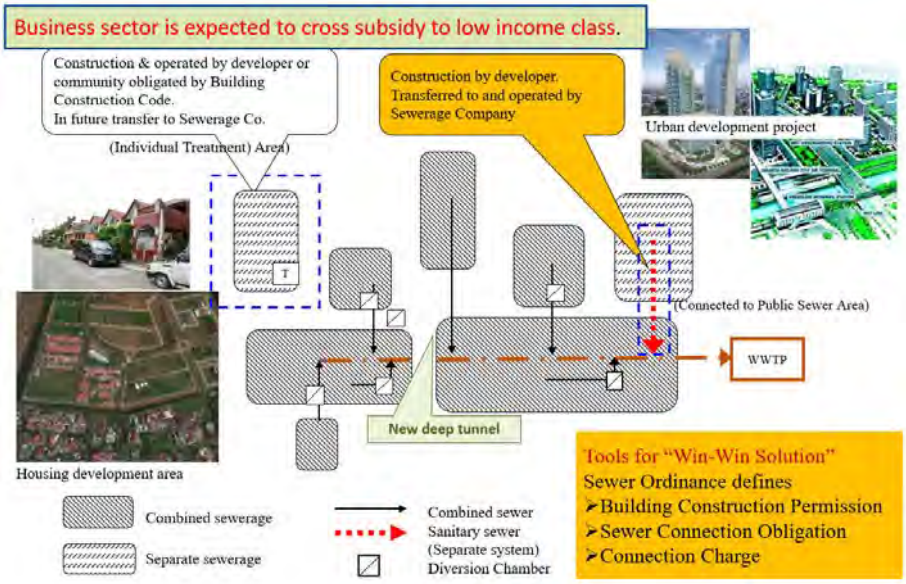
1）および2）によって、下記に示すように、下水道の骨格を作る。
幹線管渠を優先的に整備すると、処理区域全体の地域で下水道への接続工事が可能となる。民間都市開発プロジェクトと連携することで、高所得層を取り入れた下水道経営が可能となり、かつ行政も限られた財源を優先プロジェクトに効率的に投入できる。交通渋滞の著しい都心部でも、長距離・曲線推進技術は、幹線管渠の整備を可能とする。

ジャカルタは都市化の進展が著しく都市施設用地の確保が極めて困難である。また、建築物の高層化や人口の流入、所得水準の向上や生活様式の変化によって、水使用量の増加も想定される。都市施設は一般に都市計画の計画目標年次を想定して計画を策定するので、社会情勢の変化に応じて、10 年～20 年の間隔で、計画の見直しを必要とする。また、ジャカルタ湾の埋立ても進められており、公共施設用地を埋立て地に確保するなど、中長期の下水道整備戦略の策定が望まれる。

2 つの処理区や処理場を結びつける連絡管（Connecting sewer、Connecting pipe gallery）は、優先度の高い地域を隣接する処理場に連絡させることで処理場の建設を遅らせ、処理場の稼働率を高め建設投資を平準化させる効果がある。また、設備の更新時に隣接処理場と下水を融通し余裕の処理能力を効率的に活用することが可能である。



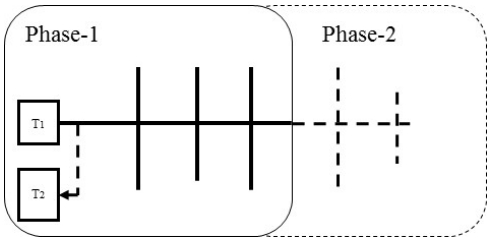
長距離・曲線推進技術を利用した幹線管渠の優先整備



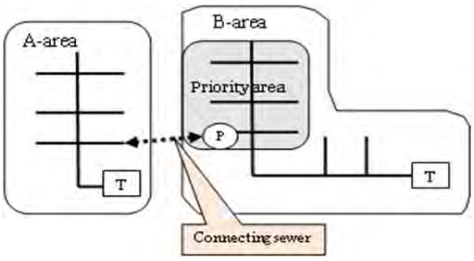
都市開発プロジェクトと連携下水道整備手法

出典：専門家チーム

図 4-1　ジャカルタに適用可能な下水管路整備手法



処理場の増強



連絡管

埋立て地の設ける下水処理場（西宮市甲子園浜浄化センター）

図 4-2　下水処理場の多様な整備手法

インドネシアは、日本および主要な海外諸国と同様に、建築許可制度（Building Construction Approval）および都市開発計画の許可制度・環境影響評価制度・環境管理計画（Environmental Impact Assessment）を有している。全ての建築物の新設・増設と一定規模以上の開発プロジェクトが、許可の対象とされる。これまで、下水管路の整備において、開発条件に連動する行政指導が実施されてこなかった。

ジャカルタ都心部では、MRT の建設が進み、駅周辺で大規模な再開発事業が進められている。また、都心部のみならず、周辺市街地でも、住宅地や新市街地が開発されている。これらの都市開発事業地では、比較的高所得層の下水道利用者が期待できる。このため、高所得層から低所得層への内部補助（Cross Subsidy）を可能とする料金制度と下水道の整備手法が、下水道経営に寄与する。

このため、日本の大都市が経験してきた高度経済成長時代の官民連携の行財政制度である開発許可制度を例示し、条例の下水道への接続と連動させて活用していくことを本プロジェクトでも提案しており、今後その措置が取られることを期待する。

3）セプティックタンクは、雑排水を処理しないので、下水道や浄化槽・改良型小規模処理施設と比べて、汚濁負荷削減効果が小さい。しかし、短期間に全市域に適用可能であるので、一定の汚水処理効果を発揮する。全ての汚濁負荷発生源で、採用可能な方策を実施することは、住民の衛生環境の改善による直接的な裨益に加えて、汚濁者負担の原則、水環境改善の取り組みについても、評価できる。

汚泥処理施設の整備と運営は、行政側の責務としていることが、マレーシアやマニラ等を含む海外の共通の理解である。インドネシア国内においても、バンドンやジョグジャカルタは、行政の責務として、セプティックタンク汚泥の処理を行っている。セプティックタンク汚泥引抜きについては、既に、民間事業者がサービスを提供している。

従って、本プロジェクトでは、汚泥処理施設の整備と運営を行政の責務として位置付けること、民間事業者の育成・指導についての規制・規準の制度化の体系を示し、検討を進めることを提案しており、このような考え方が定着することを望む。

4）小規模処理場は、改良型の活性汚泥法を採用するオフィスビルでも、機器の故障で未処理下水が排出されている事例が確認された。水環境の改善を進め排出者に公平な負担を求めていくためには、建築物所有者の責務を明確にし、排水処理技術者の研修・所有者の義務規定等を通じた改善が重要である。本プロジェクトでは、これらの研修・資格制度、建築物所有者に対する規制・規準の体系を示し、検討を進めることを提案しており、引き続きインドネシア側で対応することが期待される。

(7) 下水道料金制度解決のためのロードマップ

現在の下水道料金制度は、水道の普及率が60%程度のジャカルタにあって水道メータに依存しない建物の床面積を料金の計算根拠としCross Subsidyの機能を持つ有力な制度である。しかしながら、契約ベースであるので、下水道への接続を拒否する住民への義務付けおよび未納者に対する納付の強制力を持つ料金制度および徴収方法が望ましい。ジャカルタの実情に合った下水道料金の条例化は、極めて重要である。

専門家チームは、汚染者負担の原則・環境税、住民のアフォーダビリティー・貧困層への配慮、下水道サービス水準に応じた料金制度、経営改善の取り組みなどを、テキストブックに紹介している。

下水道の管路建設工事が始まると、建設工事の説明、下水道への接続義務、ハウスコネクションの工事・費用の負担など、下水道料金に対する説明が不可欠である。下水道料金制度作りのためのロードマップについて、次にベースモデルを示す。

表 4-1 下水道料金条例改定のロードマップ

年度	条例化の手続き・業務	下水道事業
2017	料金制度検討のための予算要望	詳細設計 ODA LA 締結に向けた ES
2018	料金・経営計画のシミュレーション	下水管路・下水処理場の建設工事
2019	下水道料金に対する住民説明・有識者会議	面整備管の設計
2020	下水道料金の議決	面整備管の建設・住民説明
2021	下水道料金条例の施行	ハウスコネクションの建設
2022	下水道料金の賦課	下水処理の供用

出典：専門家チーム

このように下水処理の供用まで 5 年あるが、その間に準備すべき業務は多い。ここで示したロードマップの速度に合わせるべく継続した作業促進も必要になると考える。

資　料

資料１　プロジェクトの結果

資料 1-1　専門家派遣実績

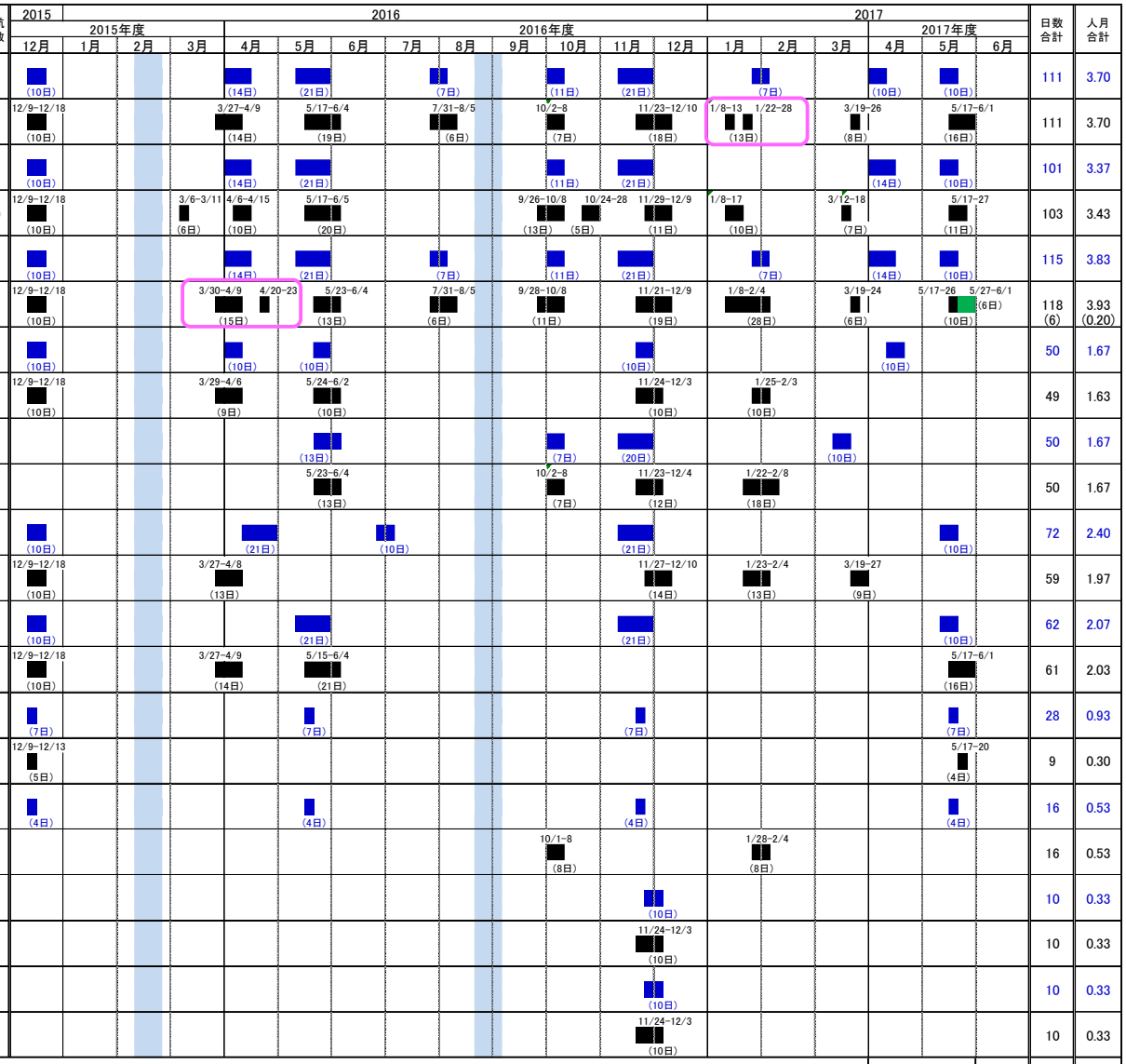
資料 1-2　カウンターパートリスト

資料 1-3　研修実績

資料 1-1　専門家派遣実績

1．現地業務

	担当	所属	格付		渡航回数	日数合計	人月合計
現地業務	金井　重夫 総括/下水道政策・整備計画	日本ﾃｸﾉ	2	計画	9	111	3.70
				実績	9	111	3.70
	高見沢 清子 **副総括/下水道政策・整備計画**	日本ﾃｸﾉ	3	計画	7	101	3.37
				実績	10	103	3.43
	井上 弥九郎 組織体制・法制度整備	日本ﾃｸﾉ	3	計画	9	115	3.83
				実績	9	118 (6)	3.93 (0.20)
	佐藤　和明 下水道財政 1（行政制度） ／下水道財政 2（経営計画） ／分散型汚水管理1	八千代ｴﾝｼﾞﾆｱﾘﾝｸﾞ	3	計画	5	50	1.67
				実績	5	49	1.63
	橋本　和司 下水道財政 2（経営計画） ／分散型汚水管理1	八千代ｴﾝｼﾞﾆｱﾘﾝｸﾞ	3	計画	4	50	1.67
				実績	4	50	1.67
	金　玄烈 施設維持管理	ｳｫｰﾀｰｴｰｼﾞｪﾝｼｰ	3	計画	5	72	2.40
				実績	5	59	1.97
	大橋　隆史 広報・業務調整	日本ﾃｸﾉ	4	計画	4	62	2.07
				実績	4	61	2.03
	河井　竹彦 研修講師（下水道実施体制）	下水道事業支援ｾﾝﾀｰ	3	計画	4	28	0.93
				実績	2	9	0.30
	中村　孝行 研修講師 （下水道事業（地方自治体））	北九州ｳｫｰﾀｰｻｰﾋﾞｽ	3	計画	4	16	0.53
				実績	2	16	0.53
	森田　昭 分散型汚水管理2	日本環境衛生ｾﾝﾀｰ	3	計画	1	10	0.33
				実績	1	10	0.33
	雲川　新泌 分散型汚水管理3	日本環境整備教育ｾﾝﾀｰ	3	計画	1	10	0.33
				実績	1	10	0.33
				現地業務小計	計画	625	20.83
					実績	596	19.85



2．国内業務

	担当	所属	格付		2015年度 12月	1月	2月	3月	2016年度 4月	5月	6月	7月	8月	9月	10月	11月	12月	2017年度 1月	2月	3月	4月	5月	6月	日数合計	人月合計
国内作業	金井 重夫 総括/下水道政策・整備計画	日本ﾃｸﾉ	2	計画	(4日)																		(4日)	8	0.40
				実績	12/3-8 (4日)																		6/5-8 (4日)	8	0.40
	高見沢 清子 副総括/下水道政策・整備計画	日本ﾃｸﾉ	3	計画	(4日)																		(4日)	8	0.40
				実績	12/7-8, 21-22 (4日)																		5/29-31 (2.8日)	6.8	0.34
	井上 弥九郎 組織体制・法制度整備	日本ﾃｸﾉ	3	計画	(4日)																		(4日)	8	0.40
				実績	12/3-8 (4日)																		6/5-6 (2日)	6	0.30
	佐藤 和明 下水道財政 1（行政制度） ／下水道財政 2（経営計画） ／分散型汚水管理1	八千代ｴﾝｼﾞﾆｱﾘﾝｸﾞ	3	計画	(6日)																			6	0.30
				実績	12/3-6, 21-22 (6日)																			6	0.30
	橋本 和司 下水道財政 2（経営計画） ／分散型汚水管理1	八千代ｴﾝｼﾞﾆｱﾘﾝｸﾞ	3	計画																			(12日)	12	0.60
				実績								5/15-27											(12.8日)	12.8	0.64
	金 玄烈 施設維持管理	ｳｫｰﾀｰｴｰｼﾞｪﾝｼｰ	3	計画	(5日)																		(6日)	11	0.55
				実績	12/3-8, 21 (5日)				4/29-5/5 (2日) (4日)													5/16-19, 22-26 (8.6日)		19.6	0.98
	大橋 隆史 広報・業務調整	日本ﾃｸﾉ	4	計画	(4日)																		(4日)	8	0.40
				実績	12/3-8 (4日)																		6/5-9 (4.8日)	8.8	0.44
	河井 竹彦 研修講師（下水道実施体制）	下水道事業支援ｾﾝﾀｰ	3	計画	(4日)																		(4日)	8	0.40
				実績	12/7-8, 21-22 (4日)									9/5-9 (5日)								5/5-16 (11.6日)		20.6	1.03
	小野 静香 国内研修管理	下水道事業支援ｾﾝﾀｰ	3	計画			(20日)							(15日)										35	1.75
				実績			2/8-27 (20日)						8/20-29 (15日)	9/2、6-9										35	1.75
	黒田 誠 研修講師 （下水道事業（地方自治体））	北九州市上下水道局	3	計画	(4日)																			4	0.20
				実績		1/18-21 (4日)																		4	0.20
	中村 孝行 研修講師 （下水道事業（地方自治体））	北九州ｳｫｰﾀｰｻｰﾋﾞｽ	3	計画																			(4日)	4	0.20
				実績																		5/8-11 (4日)		4	0.20

国内作業		日数合計	人月合計
	計画	112	5.60
	実績	131.6	6.58

合計		
	計画	26.43
	実績	26.43

凡例：

- 業務従事実績
- 業務従事計画
- 自社負担
- 他案件への中抜け期間を挟み、渡航回数1回とする。（打合簿取交済み）

報告書等提出時期	2015	2016												2017					
	12月	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	1月	2月	3月	4月	5月	6月
	△ 業務計画書	△ ﾜｰｸ･ﾌﾟﾗﾝ △ Monitoring Sheet Ver. 1							△ Monitoring Sheet Ver. 2									△ ﾄﾞﾗﾌﾄ業務完了報告書	△ 業務完了報告書

資料 1-2　カウンターパートリスト

表　カウンターパートの概要

主カウンターパート	BAPPEDA
カウンターパート	Dinas Sumber Daya Air（旧 Dinas Tata Air） PD PAL Jaya DGHS（主に DKI 組織の監督）

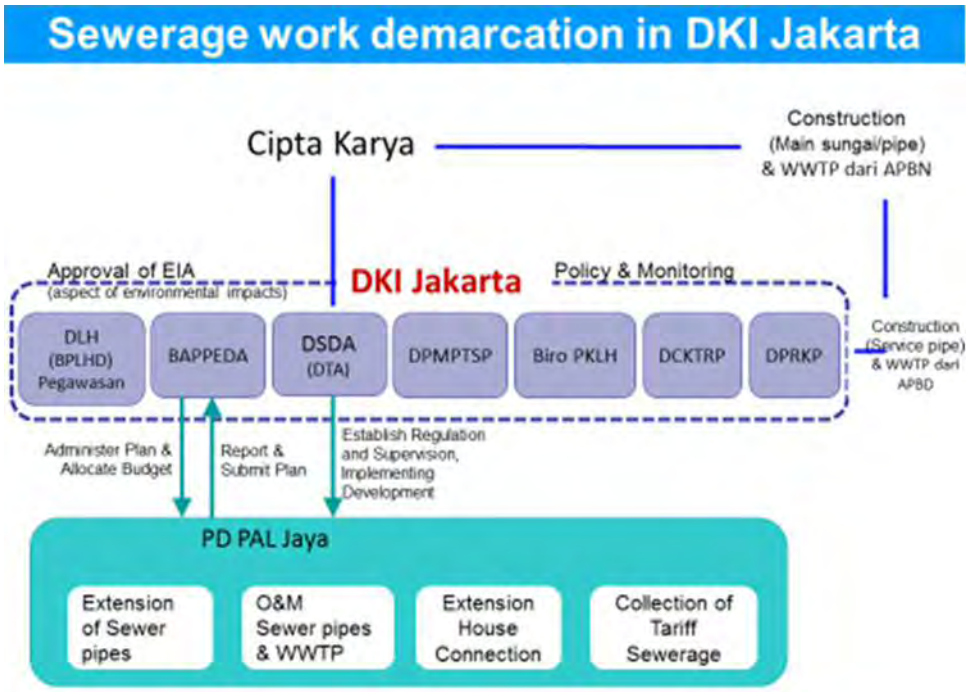


図　DKI ジャカルタの下水道事業に係る実施体制

表　ワーキンググループメンバー

		組織	ポジション	名前
メインメンバー	1	BAPPEDA	Head of City Infrastructure and Environmental Division	Mr. Tri Rachmat Djunarso
	2	BAPPEDA	Head of Sub-Division of Water Resources & Environment	Ms. Anii Maryam ↓ Ms. Tezza Nur Ghina
	3	BPLHD ↓※ Dinas Lingkungan Hidup	Head of Division of Environmental Impact Prevention & Sustainable Resources ↓※ Head of Division of Environmental Impact Control	Mr. Andono Warih
	4	BPLHD ↓※ Dinas Lingkungan Hidup	Head of Sub Division of Sustainable Resources Control ↓※ Head of Sub Division of Environmental Impact Prevention	Ms. Susana Ms. Rina Suryani
	5	Dinas Tata Air ↓※ Dinas Sumber Daya Air	Head of Division of Raw Water、Water Supply & Waste Water	Mr. Eko Gumelar Susanto
	6	Dinas Tata Air ↓※ Dinas Sumber Daya Air	Head of Sub Division of Raw Water、Water Supply & Waste Water Planning	Ms. Sarah Dewi Yani
	7	Biro PKLH	Head of Environmental Division	Mr. Budijanto
	8	Biro PKLH	Head of Sub Division of Sanitation and Pollution	Ms. Yosi Lusia
	9	PD PAL Jaya	Manager of Business Development	Mr. Aris Supriyanto
	10	PD PAL Jaya	Manager of Technique	Mr. Erwin Marphy Ali
		組織	ポジション	名前
サブメンバー	11	BAPPEDA	Staff 、 Sub-Division of Water Resources & Environment	Mr. Fadly Haley Tanjung
	12	BPLHD ↓※ Dinas Lingkungan Hidup	Staff of Division of Surveillance and Pollution Control ↓※ Staff 、 Division of Environmental Management and Hygiene	Mr. Dermawan Sembiring
	13	Dinas Tata Air ↓※ Dinas Sumber Daya Air	Staff、Sub Division of Raw Water、Water Supply & Waste Water Planning	Mr. M. Fajri
	14	Dinas Tata Air ↓※ Dinas Sumber Daya Air	Staff、Sub Division of Raw Water、Water Supply & Waste Water Planning	Mr. A. Sodikin
	15	Biro PKLH	Staff、Sub Division of Sanitation and Pollution	Ms. Retno
	16	PD PAL Jaya	Staff、Technical Planning	Mr. Rachmadi Saleh
	17	DGHS、 Ministry of Public Works and Housings	Staff、Sub Directorate of Wastewater、Directorate of Environmental Sanitation Development	Ms. Erly Silalahi ↓ Ms. Olsa Riharsya
	18	DGHS	The Commitment Maker Official、PPLP Jabodetabek	Mr. Albert
	19	DGHS	Staff、Working Unit of PPLP JABODETABEK	Mr. Dwiky

※2017 年 1 月の組織改編により変更

資料 1-3　研修実績

表　研修・セミナー実施実績

時期	カテゴリー	対象者	人数
2016 年 4 月 4 日	スモールセミナー	PD PAL Jaya	30
2016 年 4 月 5 日	スモールセミナー	DSDA	23
2016 年 4 月 6 日	スモールセミナー	BAPPEDA、BPLHD、Biro PKLH、DSDA、PD PAL Jaya	20
2016 年 4 月 7 日	スモールセミナー	DGHS	16
2016 年 5 月 31 日	特別セミナー	BAPPEDA、BPLHD、Biro PKLH、DSDA、PD PAL Jaya、PD PAM Jaya、DGHS	67
2016 年 6 月 1 日	JCC	BAPPEDA、BAPPENAS、BPLHD、Biro PKLH、DSDA、PD PAL Jaya、DGHS	39
2016 年 8 月 5 日	スモールセミナー	BAPPEDA、BPLHD、Biro PKLH、DSDA、PD PAL Jaya	20
2016 年 10 月 5 日	スモールセミナー	BAPPEDA、BPLHD、Biro PKLH、DSDA、PD PAL Jaya、DGHS	32
2016 年 10 月 6 日	スモールセミナー	DSDA	18
2016 年 11 月 29 日	スモールセミナー	PD PAL Jaya	36
2016 年 12 月 1 日	特別セミナー	BAPPEDA、BPLHD、Biro PKLH、BAPPENAS、DSDA、KPLLH、ジャカルタ各 Walikota、PD PAL Jaya、PD PAM Jaya、DGHS	85
2016 年 12 月 15 日	高官会議	BAPPENAS 、KEMENKO、DGHS、、BAPPENAS、BAPPEDA、BPKAD、PD PAL Jaya、他関係機関および JICA	40
2017 年 1 月 11 日	JCC	BAPPEDA、BAPPENAS、BPLHD、Biro PKLH、DSDA、PD PAL Jaya、DGHS、KEMENKO	31
2017 年 1 月 26 日	スモールセミナー	PD PAL Jaya	16
2017 年 1 月 30 日	スモールセミナー	PD PAL Jaya	27
2017 年 2 月 1 日	スモールセミナー	DGHS	19
2017 年 2 月 1 日	スモールセミナー	BAPPEDA	21
2017 年 2 月 2 日	スモールセミナー	DSDA	15
2017 年 2 月 3 日	スモールセミナー	PD PAL Jaya	24
2017 年 2 月 6 日	スモールセミナー	BAPPEDA	31
2017 年 3 月 23 日～24 日	合宿型ワークショップ	KEMENKO、DGHS、BAPPEDA、BPBUMD、DLH、Biro PKLH、BPLHD、DSDA、PD PAL Jaya	36
2017 年 5 月 19 日	スモールセミナー	PD PAL Jaya	2
2017 年 5 月 23 日	特別セミナー	BAPPEDA、BPLHD、Biro PKLH、BAPPENAS、KEMENKO、DSDA、KPLLH、PD PAL Jaya、PD PAM Jaya、DGHS	85
2017 年 5 月 31 日	JCC	BAPPEDA、BAPPENAS、BPLHD、Biro PKLH、DSDA、PD PAL Jaya、DGHS、KEMENKO	42
合計（延べ）			775

※DSDA：Dinas Sumber Daya Air

資料２　成果品一覧

資料2　成果品一覧

研修				
現地研修シラバス（添付資料6 現地研修計画書）				
現地研修テキスト				
	1	下水道概論（下水道の役割、日本の経験）	1-1	下水処理場の用地面積
			1-2	下水道整備と運営のポイント
	2	日本の下水道実施体制	2-1	日本における下水道の実施体制
	3	地方自治体のケーススタディ	3-1	北九州市の下水道マネジメントの経験
	4	下水道整備手法（事例紹介）	4-1	下水道事業実施体制と下水道法規
			4-2	下水道行財制度基盤の強化
			4-3	ジャカルタ下水道における環境と課題
	5	行財政制度（日本・海外の事例紹介）	5-1	海外における下水道事業実施体制と法体系の事例
	6	維持管理計画・民間事業者の活用施策	6-1	下水道施設維持管理（維持管理の重要性）
			6-2	効率的な下水道施設の維持管理
			6-3	施設維持管理一般及び水質管理
	7	下水道経営	7-1	日本都市部での下水道料金体系
			7-2	下水道事業体の資産運用管理
	8	広報・広聴	8-1	北九州市の下水道事業の広報活動
	9	分散型汚水管理の改善	9-1	商業施設での個別汚水処理設備の維持管理改善
			9-2	日本や他国における汚泥処理の財政
			9-3	日本における分散型下水処理施設の維持管理体制
			9-4	汚泥処理と処分
	10	中期下水道整備計画	10-1	中期下水道整備計画
			10-2	横浜市における初期下水道整備5ヶ年計画
			10-3	高度下水処理技術
本邦研修テキスト				
	1	日本における下水道行政		
	2	下水道マスタープラン		
	3	下水道事業の運営（財政）		
	4	市街地の下水処理場		
	5	下水道研修		
	6	下水汚泥処理・利用技術		
	7	下水道事業の運営（アセットマネジメント）		
	8	浄化槽		
	9	秦野浄化センター（し尿処理場）		
	10	大阪市の浸水対策		
	11	北九州市の下水道事業概要		
	12	北九州市の下水道事業の経営		
	13	施設の維持管理概要		
	14	事業場排水規制		
	15	日明浄化センター視察		
中期下水道整備計画策定支援				
中期下水道整備計画案策定支援テキスト				
下水道条例策定支援				
下水道事業の運営や実施に関する条例策定支援テキスト				

資料３　PDM

資料3　PDM（プロジェクト・デザイン・マトリックス）

[Ver. 1.0]

プロジェクト名 :インドネシア国ジャカルタ特別州下水道整備にかかる計画策定能力向上プロジェクト　　期間: 2015 年 6 月－2017 年 5 月
ターゲット・グループ :DKI、PD PAL Jaya、Ministry of Public Works　　Ver. 1.0
対象地域 :ジャカルタ　　作成日: 2014 年 12 月

プロジェクトの要約	指標	入手手段	外部条件
上位目標 下水道管理に関する行政能力が向上する。	■下水道工事が発注される。	■工事プロジェクトの入札公示	■工事予算が確保される。
プロジェクト目標 ジャカルタ特別州における下水道事業の実施体制が強化される。	■組織および業務内容を規定した政府法令の詳細規則が発行される。	■詳細規則	■下水場事業に関する大幅な政策の変更がない。 ■下水道事業に必要な人数が確保される。
成果 1 ジャカルタ特別州における、下水道事業の業務分担が明確になる。 2 下水道事業を計画するための職員の能力が強化される。	1 下水道事業に必要な業務内容が明文化される。 2 下水道整備計画が立案される。	1 組織別の業務内容 2 組織別の職員へのヒヤリング	■プロジェクト実施に係る組織体制に大幅な変更がない。

活動	投入	前提条件
【成果 1 にかかる活動】 1-1 JICA 専門家が、DKI の協力により、ジャカルタ特別州における下水道関連事業の実施体制、実施状況を確認する。 1-2 JICA 専門家と DKI が、DKI の下水道事業に関し、DGHS と BAPPEDA、Dinas Tata Air 等、PD PAL Jaya の担当業務を明確にする。 1-3 DKI 及び PD PAL Jaya が、専門家の助言を得ながら、自らの担当業務執行に必要な活動を具体的に規定する。 1-4 JICA 専門家、DKI、PD PAL Jaya が下水道事業の実施に係るそれぞれの機関の課題を抽出する。 1-5 DKI 及び PD PAL Jaya が、専門家の助言を得ながら、問題解決方法を検討し、担当する組織を規定する。 1-6 下水道事業の実施組織、担当業務、権限等の実施体制を DKI 内で組織決定する。 **【成果 2 にかかる活動】** 2-1 JICA が下水道事業の実務担当者を育成するため、現地の課題、ニーズを調査し、基本的な知識を修得する研修計画を立案する。 2-2 下水道に関する研修を行う。 2-3 DKI の職員が、専門家の助言を得ながら、ジャカルタ特別州の中期下水道整備計画案を作成する。 2-4 DKI の職員が、専門家の助言を得ながら、ジャカルタ特別州の下水道事業の運営や実施に関する地方条例案や実施細則案を作成する。	**【日本側】** ■人材: ● 長期専門家:チーフアドバイザー、業務調整 ● 短期専門家:下水道計画 ● 専門家チーム ■研修: ● カウンターパート研修(現地、海外) ■資金: ● 現地スタッフ雇用に係る資金 ● 専門家渡航資金 **【インドネシア国側】** ■人材:カウンターパートおよび総務スタッフ ● 下水道政策 ● 財務管理 ● 下水道計画 ● 施設管理 ■資機材: ● プロジェクト事務所 ■資金: ● カウンターパートの移動・宿泊費 ● プロジェクト実施に係る運営費	調査、技術検討雄ために必要な実施体制(技術者、予算)が確保される。

[Ver. 2.0]

プロジェクト名 :インドネシア国ジャカルタ特別州下水道整備にかかる計画策定能力向上プロジェクト　期間: 2015 年 6 月－2018 年 3 月
ターゲット・グループ :DKI、PD PAL Jaya、Ministry of Public Works　Ver. 2.0
対象地域 :ジャカルタ　作成日: 2017 年 3 月

プロジェクトの要約	指標	入手手段	外部条件
上位目標 下水道管理に関する行政能力が向上する。	■下水道工事が発注される。	■工事プロジェクトの入札公示	■工事予算が確保される。
プロジェクト目標 ジャカルタ特別州における下水道事業の実施体制が強化される。	■組織および業務内容を規定した政府法令の詳細規則が発行される。	■詳細規則	■下水場事業に関する大幅な政策の変更がない。 ■下水道事業に必要な人数が確保される。
成果 1 ジャカルタ特別州における、下水道事業の業務分担が明確になる。 2 下水道事業を計画するための職員の能力が強化される。	1 下水道事業に必要な業務内容が明文化される。 2 下水道整備計画が立案される。	1 組織別の業務内容 2 組織別の職員へのヒヤリング	■プロジェクト実施に係る組織体制に大幅な変更がない。

活動

【成果 1 にかかる活動】

1-1 JICA 専門家が、DKI の協力により、ジャカルタ特別州における下水道関連事業の実施体制、実施状況を確認する。
1-2 JICA 専門家と DKI が、DKI の下水道事業に関し、DGHS と BAPPEDA、Dinas Tata Air 等、PD PAL Jaya の担当業務を明確にする。
1-3 DKI 及び PD PAL Jaya が、専門家の助言を得ながら、自らの担当業務執行に必要な活動を具体的に規定する。
1-4 JICA 専門家、DKI、PD PAL Jaya が下水道事業の実施に係るそれぞれの機関の課題を抽出する。
1-5 DKI 及び PD PAL Jaya が、専門家の助言を得ながら、問題解決方法を検討し、担当する組織を規定する。
1-6 下水道事業の実施組織、担当業務、権限等の実施体制を DKI 内で組織決定する。

【成果 2 にかかる活動】

2-1 JICA が下水道事業の実務担当者を育成するため、現地の課題、ニーズを調査し、基本的な知識を修得する研修計画を立案する。
2-2 下水道に関する研修を行う。
2-3 DKI の職員が、専門家の助言を得ながら、ジャカルタ特別州の中期下水道整備計画案を作成する。
2-4 DKI の職員が、専門家の助言を得ながら、ジャカルタ特別州の下水道事業の運営や実施に関する地方条例案や実施細則案を作成する。

投入

【日本側】

■人材:
- 長期専門家:チーフアドバイザー、業務調整
- 短期専門家:下水道計画
- 専門家チーム

■研修:
- カウンターパート研修(現地、海外)

■資金:
- 現地スタッフ雇用に係る資金
- 専門家渡航資金

【インドネシア国側】

■人材:カウンターパートおよび総務スタッフ
- 下水道政策
- 財務管理
- 下水道計画
- 施設管理

■資機材:
- プロジェクト事務所

■資金:
- カウンターパートの移動・宿泊費
- プロジェクト実施に係る運営費

前提条件

調査、技術検討雄ために必要な実施体制(技術者、予算)が確保される。

資料 4　討議議事録

資料 4-1　R/D（2014 年 12 月 10 日）

資料 4-2　M/M（2017 年 5 月 19 日）

資料 4-3　第 1 回 JCC（2015 年 10 月 23 日）

資料 4-4　第 2 回 JCC（2016 年 6 月 1 日開催、2016 年 8 月 1 日署名）

資料 4-5　第 3 回 JCC（2017 年 1 月 11 日開催、2017 年 1 月 23 日署名）

資料 4-6　第 4 回 JCC（2017 年 5 月 31 日開催、2017 年 6 月 12 日署名）

資料4-1　討議議事録（R/D（2014年12月10日））

RECORD OF DISCUSSIONS

ON

THE PROJECT FOR IMPROVING PLANNING CAPACITY FOR THE SEWERAGE SYSTEM IN DKI JAKARTA

IN

THE REPUBLIC OF INDONESIA

AGREED UPON BETWEEN

THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Jakarta, 10th, December ,2014

Mr. Atsushi SASAKI
Chief Representative,
JICA Indonesia Office
Japan International Cooperation Agency Japan

Mr. Maliki Moersid
Director of Environmental Sanitation Development
Directorate General of Human Settlements
Ministry of Public Works and Housing
The Republic of Indonesia

Mr. Andi Baso Mappapoleonro
Head of Regional Development Planning Board
Jakarta Capital City Government

(witness)

Mr. Robert M. Sianipar
Assistant to Deputy Minister for Water Resources Infrastructure
Coordinating Ministry for Economic Affairs Republic of Indonesia

(witness)

Mr. Nugroho Tri Utomo
Directorate for Settlements & Housing
National Development Planning Agency Republic of Indonesia

Based on the minutes of meetings on the Detailed Planning Survey on the Project for Water-related Issues in Jakarta Metropolitan Area** (hereinafter referred to as "the Project") signed on 04/July/2014 between Directorate General of Human Settlements Ministry of Public Works (hereinafter referred to as "DGHS"), Jakarta Capital City Government (hereinafter referred to as "DKI") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with DKI and relevant organizations to develop a detailed plan of the Project.

Both parties agreed the details of the Project and the main points discussed as described in the Appendix 1 and the Appendix 2 respectively.

Both parties also agreed that DKI, the counterpart to JICA, will be responsible for the implementation of the Project in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of Indonesia.

The Project will be implemented within the framework of the Colombo Plan Technical Cooperation Scheme between the Government of Japan (hereinafter referred to as "GOJ") and the Government of Indonesia (hereinafter referred to as "GOI")

Appendix 1: Project Description
Appendix 2: Main Points Discussed
Appendix 3: Minutes of Meetings on the Detailed Planning Survey on the Project for Water-related Issues in Jakarta Metropolitan Area

** "The Project for Water-related Issues in Jakarta Metropolitan Area" is the original title of the Project, which was used for the minutes of meetings on the Detailed Planning Survey. However, the title was changed to "The Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta" afterward. So hereinafter "the Project" means "The Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta".

Appendix 1

PROJECT DESCRIPTION

Both parties confirmed that there is no major change in the Project Description agreed on in the minutes of meetings on the concerning Preparatory Survey on the Project signed on 04/July/2014 (Appendix 3).

I. BACKGROUND

DKI is affected by urban infrastructure such as transportation, water supply and sewerage due to rapid urbanization in spite of metropolis of more than 10 million populations. Accordingly, habitual inundation due to lack of drainage capacity of river and channel affects seriously urban activity as well as deteriorated environmental sanitation caused by wastewater discharge without treatment. Sewerage development is urgent requirement in accordance with improving deteriorated water environment and health damage.

Decentralization has been prevailed due to relevant regulation enacted since Asian Currency Crisis in 1997, accordingly infrastructure development project on sanitation has also transferred to municipal government from national government. Municipal governments have responsibility of facility construction, operation and maintenance as well as providing detailed development plan based on National Development Plan and guidelines. Sewerage System Development Project in DKI Jakarta (E/S) under Metropolitan Sanitation Management Investment Program (hereinafter "ODA Loan Project") , Loan Agreement of which was agreed on February 2014 with amount of approximately 2 billion JPY, requires spontaneous leadership on promoting house connection, tariff levy, public awareness and so on. However, sewerage management is not always reviewed due to lack of operation experience in DKI.

Under the circumstance, the Government of Indonesia (hereinafter referred to as "GOI") requested a technical cooperation project to the Government of Japan (hereinafter referred to as "GOJ") which accepted the request in 2013. In response to the acceptance of the request, JICA conducted the Detailed Planning Survey form 30th June 2014 to 4th July 2014. Both sides agreed the outline of the Project as follows.

II. OUTLINE OF THE PROJECT

Details of the Project are described in the Logical Framework (Project Design Matrix: PDM) (Annex 1) and the tentative Plan of Operation (Annex 2).

1. Title of the Project
   Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta
2. Overall Goal
   Administrative capacity of sewerage management is improved.
3. Project Purpose
   Implementation structure of sewerage works in DKI Jakarta is strengthened.

4. Outputs

1. Job allocation among relevant organizations in DKI Jakarta is clarified.
2. Planning capacity of staffs for sewerage system is enhanced.

5. Activities

1-1 JICA scrutinizes the executing organization and practice of sewerage works in DKI in consultation with DKI.

1-2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (DKI include Regional Development Planning Board (hereinafter referred to as "BAPPEDA"), Public Works Agency (hereinafter referred to as "Dinas PU" and other relevant organizations) and Wastewater Management Enterprise City of Jakarta (hereinafter referred to as "PD PAL Jaya").

1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.

1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.

1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.

1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.

2-1 JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.

2-2 JICA implements the training programs for sewerage works.

2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.

2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.

6. Input

(1) Input by JICA

(a) Dispatch of Experts

Long Term Expert

- Chief Advisor
- Project Coordinator / Institutional Development

Short Term Expert

Short-term experts will be dispatched in accordance with the needs for the effective implementation of the Project.

(b) Training

Counterpart trainings (overseas and local) will be held in accordance with the needs and necessity for the effective implementation of the Project.

Input other than indicated above will be determined through mutual consultations between JICA and GOI during the implementation of the Project, as necessary.

(2) Input by GOI

GOI will take necessary measures to provide at its own expense:

(a) Services of GOI's counterpart personnel and administrative personnel as

referred to in II-7;

(b) Suitable office space with necessary equipment in DKI, as well as working space in PD PAL Jaya, respectively;

(c) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;

(d) Information as well as support in obtaining medical service;

(e) Credentials or identification cards;

(f) Available data (including maps and photographs) and information related to the Project;

(g) Running expenses necessary for the implementation of the Project;

7. Implementation Structure

The Project organization chart is attached in the Annex 3. The roles and assignments of relevant organizations are as follows:

(1) DKI

(a) Project Director

Assistant Secretary for Economic Affairs, Regional Secretary Office of DKI will be responsible for overall administration and implementation of the Project.

(b) Project Manager

Head of BAPPEDA will be responsible for managerial and technical matters.

(c) Other counterpart Personnel

DKI will assign the counterpart personnel to work with the JICA Experts for the Project.

(2) PD PAL Jaya

(a) Counterpart Personnel

PD PAL Jaya will assign the counterpart personnel to work with the JICA Experts for the Project.

(3) DGHS

(a) Counterpart Personnel

DGHS will assign the counterpart personnel to work with the JICA Experts for the Project.

(4) JICA Experts

The JICA experts will give necessary technical guidance, advice and recommendations to GOI on any matters pertaining to the implementation of the Project.

(5) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least twice a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct evaluation

of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of proposed members of JCC is shown in the Annex 4.

8. Project Site(s) and Beneficiaries
Project Site: DKI Jakarta
Beneficiaries: Member of working on Sewerage Project in DKI, PD PAL Jaya and DGHS.

9. Duration
The duration of the project would be about 2 years from the date when the first JICA expert arrives.

10. Reports
GOI and JICA experts will jointly prepare the following reports in English.
(1) Monitoring Sheet on semiannual basis until the project completion.
(2) Project Completion Report at the time of project completion.

11. Environmental and Social Considerations
GOI agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GOI

1. GOI will take necessary measures to:
(1) ensure that the technologies and knowledge acquired by the Indonesia nationals as a result of Japanese technical cooperation contributes to the economic and social development of Indonesia, and that the knowledge and experience acquired by the personnel of Indonesia from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

(2) grant privileges, exemptions and benefits to the JICA experts referred to in II-6 (1) above and their families, which are no less favorable than those granted to experts of third countries performing similar missions in Indonesia under the Colombo Plan Technical Cooperation Scheme.

2. GOI will take necessary measures to:
(1) provide security-related information as well as measures to ensure the safety of the JICA experts;
(2) permit the JICA experts to enter, leave and sojourn in Indonesia for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
(3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
(4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection

with the implementation of the Project; and

(5) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 above, necessary for the implementation of the Project.

3.GOI will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

IV. MONITORING AND EVALUATION

JICA and the GOI will jointly and regularly monitor the progress of the Project through the Monitoring Sheets based on the Project Design Matrix (PDM) and Plan of Operation (PO). The Monitoring Sheets shall be reviewed every three(3) months.

Also, Project Completion Report shall be drawn up one (1) month before the termination of the Project.

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, GOI will take appropriate measures to make the Project widely known to the people of Indonesia.

VI. MUTUAL CONSULTATION

JICA and GOI will consult each other whenever any major issues arise in the course of Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the minutes of meetings between JICA and GOI.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the record of discussions.

VIII. MISCONDUCT

If JICA receives information related to suspected corrupt or fraudulent practices in the implementation of the Project, DKI and relevant organizations shall provide JICA with such information as JICA may reasonably request, including information related to any concerned official of the government and/or public organizations of the recipient country.

DKI and relevant organizations shall not, unfairly or unfavorably treat the person and/or company which provided the information related to suspected corrupt or fraudulent practices in the implementation of the Project.

Annex 1 Logical Framework (Project Design Matrix : PDM)
Annex 2 Tentative Plan of Operation
Annex 3 Project Organization Chart
Annex 4 Member List of Joint Coordinating Committee
Annex 5 Member List of Counterpart t personnel

Project Design Matrix

roject Title: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta

nplementing Agency: BAPPEDA, DKI Jakarta

arget Group: DKI, PD PAL Jaya and Ministry of Public Works

eriod of Project: Two Years

roject Site: Jakarta

Version, 0.1

Dated, 10/November/2014

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
verall Goal dministrative capacity of sewerage management is improved.	Sewarage construction projects are ordered.	1. Bidding announcement of construction project	Sufficient budget for sewerage construction is secured.		
roject Purpose nplementation structure of sewerage works in DKI Jakarta is trengthened.	Detailed regulations of Governor Decree, which prescribes organization and job description, is issued.	1. Detailed regulations	Sewerage development policies are not changed. Qualified counterpart personnel is assigned.		
utputs . Job allocation among relevant organizations in DKI Jakarta is clarified. . Planning capacity of staffs for sewerage system is enhanced.	Job description required for sewerage works is clarified. Sewerage development plan is fomulated.	1. Job description of individual organization 2. Hearing to staffs of individual organization	Organizational structure of the project implementing agencies is not drastically changed.		

Activities	Inputs		Pre-Conditions
	The Japanese Side	The Indonesian Side	
-1 JICA scrutinizes the executing organization and practice of sewerage vorks in DKI in consultation with DKI. -2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI(BAPPEDA, Dinas PU, etc) and PD PAL Jaya. -3 DKI and PD PAL Jaya stipulates necessary activities for mplementation of sewerage administration receiving advices from JICA xperts. -4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage vorks in DKI. -5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the ssues receiving advices from experts. -6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization. 2-1 JICA designs training programs in order to enhance capacity of staffs n charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI. 2-2 JICA implements the training programs for sewerage works. 2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts. 2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.	(a) Expert(s) Long Term Expert - Chief Advisor - Project Coordinator / Institutional Development Short Term Expert(s) (b) Training Counterpart trainings (overseas and local) (4)Local Cost - Expences for hiring Local staffs (secretary, translator, local consultant) - Expences for transportation of JICA experts	(a) Counterparts Counterpart Personnel and Administrative Personnel - Sewerage policy - Financial management - Sewerage planning - Facility management (b) Facility - Project office (with office furniture, business machine and internet) (c) Local Cost - Expenses necessary for counterpart personnel including fee of transportation and accommodation - Running expenses necessary for the implementation of the Project	Qualified counterpart personnel with sufficient budget is assigned. <Issues and countermeasures>

Annex 2

Tentative Plan of Operation

Version 0.1

Dated 10/November/2014

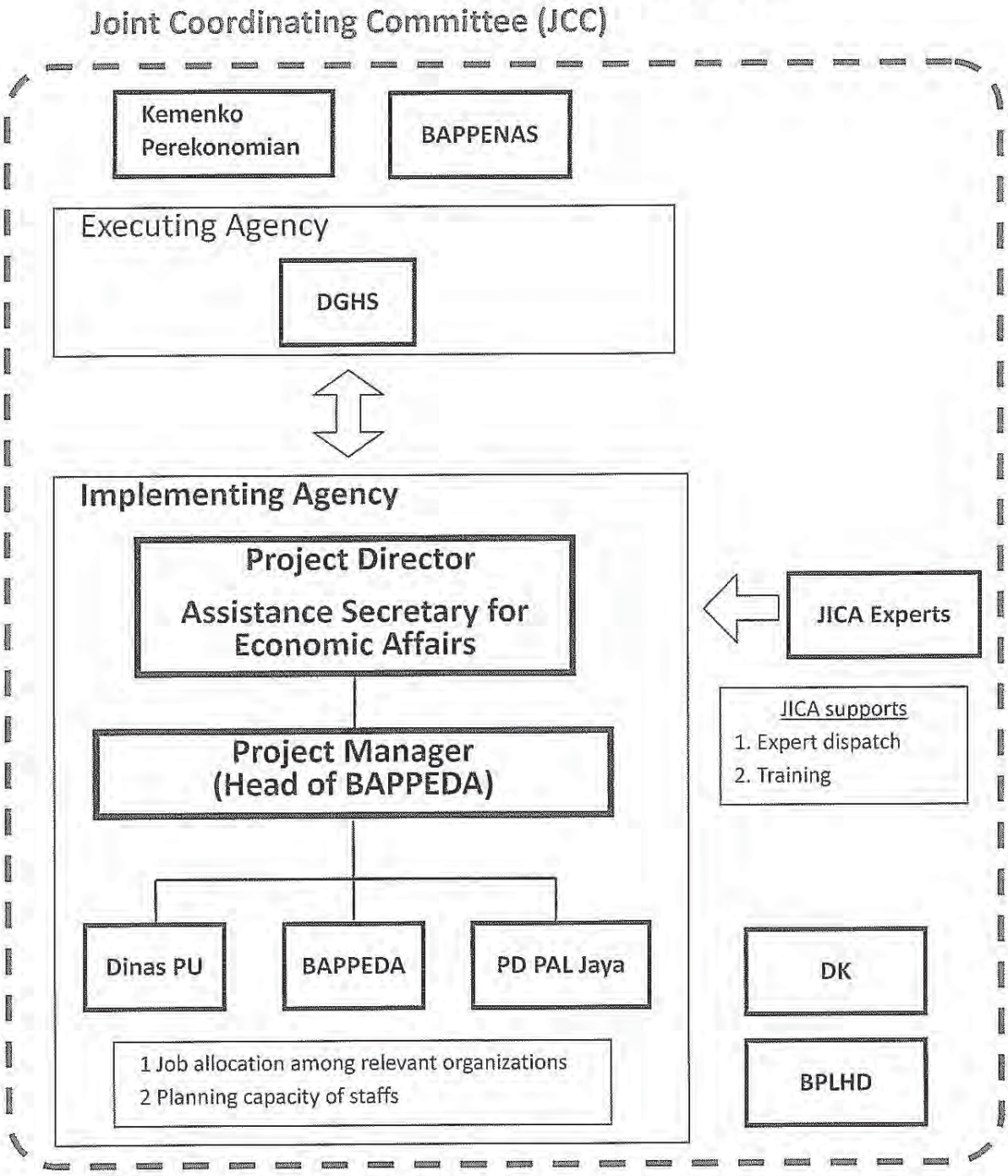
Project Title: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta

Inputs	Year	1st Year I	1st Year II	1st Year III	1st Year IV	2nd Year I	2nd Year II	2nd Year III	2nd Year IV	Remarks	Monitoring: Issue	Monitoring: Solution
Expert												
Chief Adviser	Plan	■	■	■	■	■	■	■	■			
	Actual											
Project Coordinator / Institutional Development	Plan	■	■	■	■	■	■	■	■			
	Actual											
Other Short Term Expert (s)	Plan											
	Actual											
Training in Japan												
Training for Counterpart Personnel	Plan			■				■				
	Actual											

Activities / Sub-Activities	Year	1st Year I	1st Year II	1st Year III	1st Year IV	2nd Year I	2nd Year II	2nd Year III	2nd Year IV	Responsible Organization: Japan	Responsible Organization: GOI	Achievements	Issue & Countermeasures
Output 1: Job allocation among relevant organizations in DKI Jakarta is clarified.													
1.1 JICA scrutinizes the executing organization and practice of sewerage works in DKI in consultation with DKI.	Plan	■	■							JICA	DKI PD PAL Jaya		
	Actual												
1.2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI(BAPPEDA, Dinas PU, etc) and PD PAL Jaya.	Plan		■	■						JICA	DKI PD PAL Jaya DGHS		
	Actual												
1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.	Plan				■	■				JICA	DKI PD PAL Jaya		
	Actual												
1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.	Plan		■	■	■					JICA	DKI PD PAL Jaya		
	Actual												
1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.	Plan					■	■			JICA	DKI PD PAL Jaya		
	Actual												
1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.	Plan							■	■	JICA	DKI		
	Actual												
Output 2: Planning capacity of staffs for sewerage system is enhanced.													
2-1 JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.	Plan	■	■							JICA	GOI		
	Actual												
2-2 JICA implements the training programs for sewerage works.	Plan			■	■	■	■	■		JICA	GOI		
	Actual												
2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.	Plan							■	■	JICA	GOI		
	Actual												
2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.	Plan		■		■		■			JICA	GOI		
	Actual												
Duration / Phasing	Plan	■	■	■	■	■	■	■	■				
	Actual												

Monitoring Plan	Year	1st Year I	1st Year II	1st Year III	1st Year IV	2nd Year I	2nd Year II	2nd Year III	2nd Year IV	Remarks	Issue	Solution
Monitoring												
Joint Coordination Committee	Plan	●	●		●		●		●			
	Actual											
Set-up the Detailed Plan of Operation	Plan	▲										
	Actual											
Submission of Monitoring Sheet	Plan	▲	▲	▲	▲	▲	▲	▲	▲			
	Actual											
Monitoring Mission from Japan	Plan		▲		▲		▲		▲			
	Actual											
Joint Monitoring	Plan	▲	▲	▲	▲	▲	▲	▲	▲			
	Actual											
Reports/Documents												
Mid Term Report	Plan				▲							
	Actual											
Project Completion Report	Plan								▲			
	Actual											
Public Relations												
	Plan											
	Actual											
	Plan											
	Actual											

Project Organization Chart for Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta



Kemenko Perekonomian: Water Resources Infrastructure of Coordinating Ministry for Economic Affairs of the Republic of Indonesia
BAPPENAS: National Development Planning Agency of the Republic of Indonesia
DK: Cleansing Agency of DKI

Draft of Member List of Joint Coordinating Committee

Chair

Assistant Secretary for Economic Affairs, Regional Secretary Office of DKI

Members of Indonesian Side

- Head of BAPPEDA, Provincial Government of DKI Jakarta
- Head of Dinas PU Provincial Government of DKI Jakarta
- Head of Dinas Kebersihan, Provincial Government of DKI Jakarta
- Head of Pollution Control and Sanitation Division, BPLHD, Provincial Government of DKI Jakarta
- Managing Director, PD PAL Jaya
- Director of Environmental Sanitation Development, DGHS Ministry of Public Works
- Director of Program Development, DGHS Ministry of Public Works

Supporting Member

- Assistant to Deputy Minister for Water Resources Infrastructure Coordinating Ministry for Economic Affairs Republic of Indonesia
- Director of Settlements & Housing BAPPENAS

Members of Japanese Side

- Representative of JICA
- JICA Experts
- Other personnel concerned, to be assigned by JICA, if necessary

Note

- The Embassy of Japan in Indonesia may attend as observer(s).
- Other personnel concerned, to be assigned by Chairperson of JCC, if necessary

Draft of Member List of Counterpart personnel

Project Director

Assistant Secretary for Economic Affairs, Regional Secretary Office of DKI

Project Manager

Head of BAPPEDA Provincial Government of DKI Jakarta

Members

"From BAPPEDA"

- Infrastructure and Environmental Division BAPPEDA, DKI Jakarta

"From Dinas PU"

- Head of Dinas PU, DKI Jakarta
  - Deputy Director of Dinas PU, DKI Jakarta
  - Division of Water Resource Management Dinas PU, DKI Jakarta

"From PD PAL Jaya"

- Managing Director, PD PAL Jaya
  - Director, Technical & Business Division, PD PAL Jaya
  - Head, Program & Development Division, PD PAL Jaya

"From DGHS"

- Director of Environmental Sanitation Development, DGHS
  - Director, Sub-directorate of Wastewater, Directorate of Environmental Sanitation, DGHS

Appendix 2

MAIN POINTS DISCUSSED

1. Both sides confirmed that the project is categorized as "Goods / Services" stipulated in Article 42 (1) c of Government Regulation No. 10/2011.

2. In accordance with Regulation of Minister of Finance No. 191/ PMK.05 /2011, the executing agency shall submit BAST (handover delivery certificate of goods/services) to the Ministry of Finance of Indonesia. In order to secure the accuracy of BAST, JICA Indonesia Office will provide DGHS with data on semester basis as follows.

   -Goods: name and price (in effective currency) per item of equipment handed over during last six months
   -Services: total expenditure (in Japanese currency) of last six months for expert, training, and mission

3. DGHS will make and sign BAST based on the data provided by JICA, and after obtaining JICA's confirmation, submit it to MOF.

4. Decree No. 944 / 2014 regulating the Project Implementation Unit (PIU) in the Central Sewerage System Project has been valid by endorsement on 30/May/2014 approved by Governor.

5. DKI Jakarta drafts Mid-term Sewerage Development Plan (hereinafter referred to as "the Plan") for acceleration of Reviewed Sewerage Master Plan 2012 implementation in consultation with JICA Experts. Budget will be allocated for the Plan to implement the project by BAPPEDA after getting approval from city council.

6. DKI informed JICA that Regional Government Regulation on the Regional Working Organization had been revised and would be applied at the beginning of January 2015. With considering of the organization restructuring following after the revision of the regulation, DKI will take necessary measures such as giving detail information on the organization restructuring to JICA experts and consulting with them to assist the Project activities.

END

MINUTES OF MEETINGS
BETWEEN
AUTHORITIES CONCERNED OF
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
ON
JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR WATER-RELATED ISSUES
IN JAKARTA METROPOLITAN AREA

Japan International Cooperation Agency (hereinafter referred to as "JICA") has dispatched the Detailed Planning Survey Team (hereinafter referred to as "the Team") headed by Mr. Yutaka Fukase to the Republic of Indonesia from June 30 to July 4, 2014 for the purpose of preparation of the technical cooperation regarding the Project for Water-related Issues in Jakarta Metropolitan Area (hereinafter referred to as "the Project").

During its stay in Indonesia, the Team exchanged their views and had a series of discussions for the purpose of working out the framework and contents of the Project with the authorities concerned of the Republic of Indonesia.

As a result of discussions, both sides came to understanding concerning the matters referred to in the document attached hereto.

Jakarta, 4, July, 2014

Mr. Yuata Fukase
Leader
Detailed Planning Survey Team,
Japan International Cooperation Agency

Mr. Maliki Moersid
Director of Environmental Sanitation Development
Directorate General of Human Settlements
Ministry of Public Works
The republic of Indonesia

Mr Andi Baso Mappapoleonro
Head of Regional Development Planning Board
Jakarta Capital City Government

(witness)

Mr. Robert M. Sianipar
Assistant to Deputy Minister for Water Resources Infrastructure
Coordinating Ministry for Economic Affairs
The Republic of Indonesia

(witness)

Mr. Nugroho Tri Utomo
Directorate for Settlements & Housing
National Development Planning Agency
The Republic of Indonesia

ATTACHED DOCUMENT

1. Technical Cooperation Project

The Team explained the basic framework and concept of JICA's Technical Cooperation Project to Indonesian side for better understanding the scheme of the Project. The Team also showed the following key factors of the cooperation on sewerage institution such as; 1) collaboration of both sides, 2) appropriate technology and skills transfer, and 3) sewerage capacity development.

2. Title of the Project

Both sides agreed to change the Project name from "Project for Water-related Issues in Jakarta Metropolitan Area" to "Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta".

3. Draft of Record of Discussions

As a result of the discussions, both sides agreed on the draft of Record of Discussions (hereinafter referred to as "R/D"), which stipulates the framework of the Project, shown in **Appendix 1**. After the approval of implementation of the Project by both JICA headquarters and Indonesian side, the R/D will be finalized and signed by JICA Indonesia office and the authorities concerned of Indonesia.

The Team explained that the attached R/D was draft and was subject to change in the authorization process by the competent authorities of both sides. The Team also explained that this Minutes of Meetings was a technical document to inscroll discussion results between the Indonesian related authorities and the Team as a preparation process to formulate R/D.

4. Project Design Matrix (PDM)

The Team explained that the Project Design Matrix (hereafter referred to as "PDM") is commonly used in Japanese technical cooperation in order to manage and implement projects efficiently and effectively. It will also be used as a reference for monitoring and evaluating the Project.

As a result of discussions, both sides agreed to apply the tentative PDM as shown in **Appendix 2** to the Project with following understanding:

1) The PDM is a logically designed matrix which defines the initial understanding of the framework of the Project and indicates the logical steps toward the achievement of the Project purpose.
2) The PDM is to be flexibly revised according to the progress and achievements of the Project, upon approval by the Joint Coordinating Committee, shown in **Appendix 5**.

5. Duration and Schedule of the Project

The duration of the Project would be two (2) years from the date when the expert(s) arrives. The Plan of Operation has been tentatively formulated according to the draft of R/D.

The Draft of Plan of Operation for the entire period of the Project is shown in **Appendix 3.**

The Annual Plan of Operation is to be drafted by both Indonesian and Japanese sides according to the Plan of Operation and is to be submitted to the Joint Coordinating Committee. The activities are subject to change within the scope of the R/D, if necessity arises, in the course of the Project implementation.

6. **Executing Agency**

Directorate General of Human Settlements Ministry of Public Works (hereinafter referred to as "DGHS"): responsible for overall management of the Project including administrative logistic supports and for construction of treatment plant and main sewer pipes of the centralized sewerage system.

7. **Implementing Agency**

- Head of Regional Development Planning Board Jakarta Capital City Government (hereinafter referred to as "BAPPEDA"): responsible for leading the job allocation among relevant organizations in Jakarta Capital City Government (hereinafter referred to as "DKI").
- Wastewater Management Enterprise City of Jakarta (hereinafter referred to as "PD PAL Jaya"): responsible for making plan, construction and maintenance of facilities of the centralized sewerage system.
- Public Works Agency of DKI (hereinafter referred to as "Dinas PU"): responsible for management of drainage system.

Project Organization Chart is shown in **Appendix 4.**

8. **Other relevant Issues**

(1) The Project was requested from Government of Indonesia (hereinafter referred to as "GOI") in September 2012 which aims to improve water-related issues on water quality, flood damage, water resource and land subsidy. Both side agreed to focus on sewerage as the most prioritized subject in this Project which is described on attached **Appendix 1** Draft of Record of Discussions.

(2) GOI nominates staffs as counterparts personnel listed in **Appendix 6** for the Project.

(3) Staffs nominated in **Appendix 6** will be assigned as counterparts personnel soon after singing Record of Discussions before implementation of the Project.

Appendix 1	Draft of Record of Discussions
Appendix 2	Draft of Project Design Matrix
Appendix 3	Draft of Plan of Operation
Appendix 4	Draft of Project Organization Chart
Appendix 5	Draft of Member List of Joint Coordinating Committee
Appendix 6	Draft of Member List of Counterpart personnel

資料4-2　討議議事録（M/M（2017年5月19日署名））

MINUTES OF MEETINGS
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE AUTHORITIES CONCERNED OF
THE GOVERNMENT OF REPUBLIC OF INDONESIA
FOR AMENDMENT OF THE RECORD OF DISCUSSIONS
ON
THE PROJECT FOR IMPROVING PLANNING CAPACITY FOR THE SEWERAGE SYSTEM IN DKI JAKARTA

The Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Government of Indonesia (hereinafter referred to as "GOI") hereby agreed that the Record of Discussions on THE PROJECT FOR IMPROVING PLANNING CAPACITY FOR THE SEWERAGE SYSTEM IN DKI JAKARTA (hereinafter referred to as "the Project") signed on December 10, 2014 was amended as follows.

This amendment becomes effective as of the date, signed on this document.

May 19 , 2017

Tetsuya Harada
Senior Representative
JICA Indonesia Office
Japan International Cooperation Agency
Japan

Dodi Krispratmadi
Director of Environmental Sanitation Development
Directorate General of Human Settlements
Ministry of Public Works and Housing
The Republic of Indonesia

Tuty Kusumawati
Head of Regional Development Planning Board
Jakarta Capital City Government
The Republic of Indonesia

Teguh Hendarwan
Head of Water Resources Agency
Jakarta Capital City Government
The Republic of Indonesia

(witness)

Mohammad Zainal Fatah
Assistant to Deputy Minister for Water Resources Infrastructure Coordinating Ministry for Economic Affairs
The Republic of Indonesia

(witness)

Tri Dewi Virgiyanti
Director of Urban, Housing and Settlement
National Development Planning Agency
The Republic of Indonesia

1. "Appendix 1: PROJECT DESCRIPTION"

1.1 "II. OUTLINE OF THE PROJECT", "7. Implementation Structure"

Before	Amended Version
The Project organization chart is attached in the Annex 3. The roles and assignments of relevant organizations are as follows; (1) DKI (a) Project Director Assistant Secretary for Economic Affairs, Regional Secretary Office of DKI will be responsible for overall administration and implementation of the Project. (b) Project Manager Head of BAPPEDA will be responsible for managerial and technical matters.	The Project organization chart is attached in the Annex 3. The roles and assignments of relevant organizations are as follows; (1) DKI (a) Project Director Head of BAPPEDA will be responsible for overall administration and implementation of the Project. (b) Project Manager Head of Dinas Sumber Daya Air will be responsible for managerial and technical matters.
Reason: Based on the organization reform in DKI Jakarta, Dinas Tata Air was founded as implementing institution of the sewerage works in DKI Jakarta in January 2015 and Dinas Tata Air was transformed into Dinas Sumber Daya Air in January 2017.	

1.2 "II. OUTLINE OF THE PROJECT", "9. Duration"

Before	Amended Version
The duration of the project would be about 2 years from the date when the first JICA expert arrives.	The duration of the project would be June 2015 to March 2018 (about 2 years and 10 months)
Reason: The project period is adjusted in line with the current situation that the activity 1-4, 1-5, and 1-6 described in the Project Design Matrix would need more time to be completed. Regarding the activity 2-4 which is originally planned to be completed by the end of second quarter of 2017, the Japanese experts have prepared the text book which can be one of the inputs for the draft regional regulation, while the draft of regional regulation has not been prepared yet. In order to prepare the draft, Dinas Sumber Daya Air DKI has allocated budget for employing a local consultant in 2017. The contract with the local consultant will start on May 29th, 2017 until November 29th, 2017. Before the contract will be signed between Dinas SDA DKI Jakarta and local consultant, Japanese experts will hand over the text book to Dinas SDA DKI Jakarta. And for completion of the draft, local consultant of Dinas SDA DKI Jakarta will take over the works. The draft of regulation is expected to be completed on 2017.	

1.3 Annex

In accordance with the above mentioned modification, the following annexes were also modified:

Annex 1: Logical Framework (Project Design Matrix : PDM)
Annex 2: Tentative Plan of Operation
Annex 3: Project Organization Chart
Annex 4: Member List of Joint Coordinating Committee
Annex 5: Member List of Counterpart personnel

Appendix 1: REVISED PROJECT DESCRIPTION
Appendix 2: Record of Discussions (signed on December 10, 2014)

Appendix 1

RIVISED PROJECT DESCRIPTION

Both parties confirmed that there is no major change in the Project Description agreed on in the minutes of meetings on the concerning Preparatory Survey on the Project signed on 04/July/2014 (Appendix 3).

I. BACKGROUND

DKI is affected by urban infrastructure such as transportation, water supply and sewerage due to rapid urbanization in spite of metropolis of more than 10 million populations. Accordingly, habitual inundation due to lack of drainage capacity of river and channel affects seriously urban activity as well as deteriorated environmental sanitation caused by wastewater discharge without treatment. Sewerage development is urgent requirement in accordance with improving deteriorated water environment and health damage.

Decentralization has been prevailed due to relevant regulation enacted since Asian Currency Crisis in 1997, accordingly infrastructure development project on sanitation has also transferred to municipal government from national government. Municipal governments have responsibility of facility construction, operation and maintenance as well as providing detailed development plan based on National Development Plan and guidelines. Sewerage System Development Project in DKI Jakarta (E/S) under Metropolitan Sanitation Management Investment Program (hereinafter "ODA Loan Project") , Loan Agreement of which was agreed on February 2014 with amount of approximately 2 billion JPY, requires spontaneous leadership on promoting house connection, tariff levy, public awareness and so on. However, sewerage management is not always reviewed due to lack of operation experience in DKI.

Under the circumstance, the Government of Indonesia (hereinafter referred to as "GOI") requested a technical cooperation project to the Government of Japan (hereinafter referred to as "GOJ") which accepted the request in 2013. In response to the acceptance of the request, JICA conducted the Detailed Planning Survey form 30th June 2014 to 4th July 2014. Both sides agreed the outline of the Project as follows.

II. OUTLINE OF THE PROJECT

Details of the Project are described in the Logical Framework (Project Design Matrix: PDM) (Annex 1) and the tentative Plan of Operation (Annex 2).

1. Title of the Project
   Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta
2. Overall Goal
   Administrative capacity of sewerage management is improved.
3. Project Purpose
   Implementation structure of sewerage works in DKI Jakarta is strengthened.
4. Outputs
   1. Job allocation among relevant organizations in DKI Jakarta is clarified.

2. Planning capacity of staffs for sewerage system is enhanced.

5. Activities

1-1 JICA scrutinizes the executing organization and practice of sewerage works in DKI in consultation with DKI.

1-2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (DKI include Regional Development Planning Board (hereinafter referred to as "BAPPEDA"), Public Works Agency (hereinafter referred to as "Dinas PU" and other relevant organizations) and Wastewater Management Enterprise City of Jakarta (hereinafter referred to as "PD PAL Jaya").

1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.

1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.

1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.

1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.

2-1 JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.

2-2 JICA implements the training programs for sewerage works.

2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.

2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.

6. Input

(1) Input by JICA

(a) Dispatch of Experts

Long Term Expert

- Chief Advisor
- Project Coordinator / Institutional Development

Short Term Expert

Short-term experts will be dispatched in accordance with the needs for the effective implementation of the Project.

(b) Training

Counterpart trainings (overseas and local) will be held in accordance with the needs and necessity for the effective implementation of the Project.

Input other than indicated above will be determined through mutual consultations between JICA and GOI during the implementation of the Project, as necessary.

(2) Input by GOI

GOI will take necessary measures to provide at its own expense:

(a) Services of GOI's counterpart personnel and administrative personnel as referred to in II-7;

(b) Suitable office space with necessary equipment in DKI, as well as working space in PD PAL Jaya, respectively;

(c) Supply or replacement of machinery, equipment, instruments, vehicles,

tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;

(d) Information as well as support in obtaining medical service;
(e) Credentials or identification cards;
(f) Available data (including maps and photographs) and information related to the Project;
(g) Running expenses necessary for the implementation of the Project;

7. Implementation Structure

The Project organization chart is attached in the Annex 3. The roles and assignments of relevant organizations are as follows:

(1) DKI

(a) Project Director

Head of BAPPEDA will be responsible for overall administration and implementation of the Project.

(b) Project Manager

Head of Dinas Sumber Daya Air will be responsible for managerial and technical matters.

(c) Other counterpart Personnel

DKI will assign the counterpart personnel to work with the JICA Experts for the Project.

(2) PD PAL Jaya

(a) Counterpart Personnel

PD PAL Jaya will assign the counterpart personnel to work with the JICA Experts for the Project.

(3) DGHS

(a) Counterpart Personnel

DGHS will assign the counterpart personnel to work with the JICA Experts for the Project.

(4) JICA Experts

The JICA experts will give necessary technical guidance, advice and recommendations to GOI on any matters pertaining to the implementation of the Project.

(5) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least twice a year and whenever deems it necessary. JCC will approve an annual work plan, review overall progress, conduct evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of proposed members of JCC is shown in the Annex 4.

8. Project Site(s) and Beneficiaries

Project Site: DKI Jakarta

Beneficiaries: Member of working on Sewerage Project in DKI, PD PAL Jaya and DGHS.

9. Duration
The duration of the project would be June 2015 to March 2018 (about 2 years and 10 months) .

10. Reports
GOI and JICA experts will jointly prepare the following reports in English.
(1) Monitoring Sheet on semiannual basis until the project completion.
(2) Project Completion Report at the time of project completion.

11. Environmental and Social Considerations
GOI agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

III. UNDERTAKINGS OF GOI

1.GOI will take necessary measures to:

(1) ensure that the technologies and knowledge acquired by the Indonesia nationals as a result of Japanese technical cooperation contributes to the economic and social development of Indonesia, and that the knowledge and experience acquired by the personnel of Indonesia from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and

(2) grant privileges, exemptions and benefits to the JICA experts referred to in II-6 (1) above and their families, which are no less favorable than those granted to experts of third countries performing similar missions in Indonesia under the Colombo Plan Technical Cooperation Scheme.

2.GOI will take necessary measures to:

(1) provide security-related information as well as measures to ensure the safety of the JICA experts;
(2) permit the JICA experts to enter, leave and sojourn in Indonesia for the duration of their assignments therein and exempt them from foreign registration requirements and consular fees.
(3) exempt the JICA experts from taxes and any other charges on the equipment, machinery and other material necessary for the implementation of the Project;
(4) exempt the JICA experts from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to them and/or remitted to them from abroad for their services in connection with the implementation of the Project; and
(5) meet taxes and any other charges on the equipment, machinery and other material, referred to in II-7 above, necessary for the implementation of the Project.

3.GOI will bear claims, if any arises, against the JICA experts resulting from, occurring in the course of, or otherwise connected with, the discharge of their

duties in the implementation of the Project, except when such claims arise from gross negligence or willful misconduct on the part of the JICA experts.

IV. MONITORING AND EVALUATION

JICA and the GOI will jointly and regularly monitor the progress of the Project through the Monitoring Sheets based on the Project Design Matrix (PDM) and Plan of Operation (PO). The Monitoring Sheets shall be reviewed every three(3) months.

Also, Project Completion Report shall be drawn up one (1) month before the termination of the Project.

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, GOI will take appropriate measures to make the Project widely known to the people of Indonesia.

VI. MUTUAL CONSULTATION

JICA and GOI will consult each other whenever any major issues arise in the course of Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the minutes of meetings between JICA and GOI.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the record of discussions.

VIII. MISCONDUCT

If JICA receives information related to suspected corrupt or fraudulent practices in the implementation of the Project, DKI and relevant organizations shall provide JICA with such information as JICA may reasonably request, including information related to any concerned official of the government and/or public organizations of the recipient country.

DKI and relevant organizations shall not, unfairly or unfavorably treat the person and/or company which provided the information related to suspected corrupt or fraudulent practices in the implementation of the Project.

Annex 1 Logical Framework (Project Design Matrix : PDM)
Annex 2 Tentative Plan of Operation
Annex 3 Project Organization Chart
Annex 4 Member List of Joint Coordinating Committee
Annex 5 Member List of Counterpart personnel

Project Design Matrix

Project Title: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta

Implementing Agency: BAPPEDA, DKI Jakarta

Target Group: DKI, PD PAL Jaya and Ministry of Public Works

Period of Project: Two Years and Ten Months

Project Site: Jakarta

Version 2

Dated, /March/2017

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal Administrative capacity of sewerage management is improved.	Sewarage construction projects are ordered.	1. Bidding announcement of construction project	Sufficient budget for sewerage construction is secured.		
Project Purpose Implementation structure of sewerage works in DKI Jakarta is strengthened.	Detailed regulations of Governor Decree, which prescribes organization and job description, is issued.	1. Detailed regulations	Sewerage development policies are not changed. Qualified counterpart personnel is assigned.		
Outputs 1. Job allocation among relevant organizations in DKI Jakarta is clarified. 2. Planning capacity of staffs for sewerage system is enhanced.	Job description required for sewerage works is clarified. Sewerage development plan is fomulated.	1. Job description of individual organization 2. Hearing to staffs of individual organization	Organizational structure of the project implementing agencies is not drastically changed.		

Activities	Inputs		Pre-Conditions
	The Japanese Side	The Indonesian Side	
1-1 JICA scrutinizes the executing organization and practice of sewerage works in DKI in consultation with DKI. 1-2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI(BAPPEDA, Dinas PU, etc) and PD PAL Jaya. 1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts. 1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI. 1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts. 1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization. 2-1 JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI. 2-2 JICA implements the training programs for sewerage works. 2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts. 2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.	(a) Expert(s) Long Term Expert - Chief Advisor - Project Coordinator / Institutional Development Short Term Expert(s) (b) Training Counterpart trainings (overseas and local) (4)Local Cost - Expences for hiring Local staffs (secretary, translator, local consultant) - Expences for transportation of JICA experts	(a) Counterparts Counterpart Personnel and Administrative Personnel - Sewerage policy - Financial management - Sewerage planning - Facility management (b) Facility - Project office (with office furniture, business machine and internet) (c) Local Cost - Expenses necessary for counterpart personnel including fee of transportation and accommodation - Running expenses necessary for the implementation of the Project	Qualified counterpart personnel with sufficient budget is assigned. **<Issues and countermeasures>**

Annex 2

Plan of Operation

Version 2

Dated /March/2017

Project Title: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta

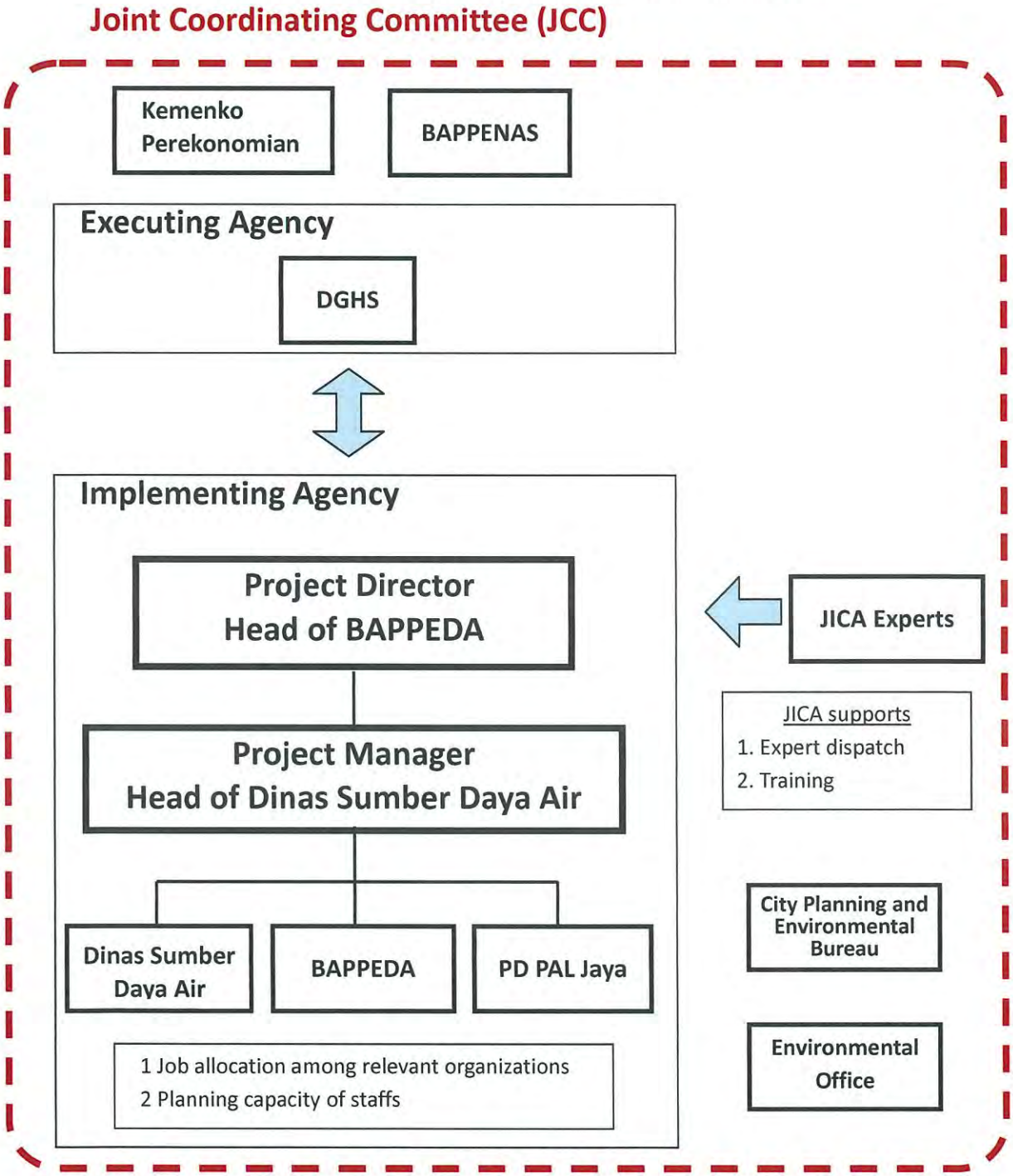
Inputs	Year	1st Year				2nd Year				3rd Year				Remarks	Monitoring: Issue	Monitoring: Solution
		I	II	III	IV	I	II	III	IV	I	II	III	IV			
Expert																
Chief Adviser	Plan															
	Actual															
Project Coordinator / Institutional Development	Plan															
	Actual															
Other Short Term Expert (s)	Plan															
	Actual															
Training in Japan																
Training for Counterpart Personnel	Plan															
	Actual															

Activities / Sub-Activities	Year	1st Year				2nd Year				3rd Year				Responsible Organization: Japan	Responsible Organization: GOI	Achievements	Issue & Countermeasures
		I	II	III	IV	I	II	III	IV	I	II	III	IV				
Output 1: Job allocation among relevant organizations in DKI Jakarta is clarified.																	
1.1 JICA scrutinizes the executing organization and practice of sewerage works in DKI in consultation with DKI.	Plan													JICA	DKI PD PAL Jaya		
	Actual																
1.2 JICA and DKI clarify the roles in terms of sewerage works of DGHS、DKI（BAPPEDA, Dinas PU, etc）and PD PAL Jaya.	Plan													JICA	DKI PD PAL Jaya DGHS		
	Actual																
1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.	Plan													JICA	DKI PD PAL Jaya		
	Actual																
1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.	Plan													JICA	DKI PD PAL Jaya		
	Actual																
1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.	Plan													JICA	DKI PD PAL Jaya		
	Actual																
1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.	Plan													JICA	DKI		
	Actual																
Output 2: Planning capacity of staffs for sewerage system is enhanced.																	
2-1 JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.	Plan													JICA	GOI		
	Actual																
2-2 JICA implements the training programs for sewerage works.	Plan													JICA	GOI		
	Actual																
2-3 DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.	Plan													JICA	GOI		
	Actual																
2-4 DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.	Plan													JICA	GOI		
	Actual																
Duration / Phasing	Plan																
	Actual																

Monitoring Plan	Year	1st Year				2nd Year				3rd Year				Remarks	Issue	Solution
		I	II	III	IV	I	II	III	IV	I	II	III	IV			
Monitoring																
Joint Coordination Committee	Plan	●	●		●		●		●		●		●			
	Actual		●		●		●									
Set-up the Detailed Plan of Operation	Plan	▲														
	Actual		▲													
Submission of Monitoring Sheet	Plan	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲				
	Actual		▲	▲	▲	▲	▲	▲								
Monitoring Mission from Japan	Plan		▲		▲		▲		▲			▲				
	Actual		▲		▲		▲									
Joint Monitoring	Plan	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲				
	Actual	▲	▲	▲	▲	▲	▲	▲								
Reports/Documents																
Mid Term Report	Plan				▲						▲					
	Actual						▲									
Project Completion Report	Plan											▲				
	Actual															
Public Relations																
	Plan															
	Actual															
	Plan															
	Actual															

Annex 3

Project Organization Chart for Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta



Kemenko Perekonomian: Water Resources Infrastructure of Coordinating Ministry for Economic Affairs of the Republic of Indonesia

BAPPENAS: National Development Planning Agency of the Republic of Indonesia

Joint Coordinating Committee

1. Function

The Joint Coordinating Committee (hereinafter referred to as "JCC") will meet when necessary and at least twice a year in order to fulfill the following functions:

1) To formulate the work plan of the Project and to coordinate and monitor the overall progress of the Project in line with the Project Design Matrix;
2) To review the result of the work plan and to evaluate the progress of the Project based on the regular monitoring sheet;
3) To show solutions against challenges which may be found in JCC;
4) To direct relevant organizations;
5) To review and exchange views on major issues that may arise during the implementation of the Project; and
6) To discuss any other issue(s) pertinent to the smooth implementation of the Project.

2. Memberships

Chair

Head of BAPPEDA, Provincial Government of DKI Jakarta

Members of Indonesian Side

Head of Dinas Sumber Daya Air, Provincial Government of DKI Jakarta

Head of Bureau of City Planning and Environment, Provincial Government of DKI Jakarta

Head of Environmental Office, Provincial Government of DKI Jakarta

President Director, PD PAL Jaya

Director of Environmental Sanitation Development, DGHS, Ministry of Public Works Director of

Settlement Infrastructure Integration, DGHS, Ministry of Public Works

Supporting Member

Assistant to Deputy Minister for Water Resources Infrastructure, Coordinating Ministry for Economic Affairs

Director of Settlements & Housing, BAPPENAS

Members of Japanese Side

Representative of JICA
JICA Experts
Other personnel concerned, to be assigned by JICA, if necessary

Note

The Embassy of Japan in Indonesia may attend as observer(s)
Other personnel concerned, to be assigned by Chairperson of JCC, if necessary.

Member List of Counterpart personnel

Project Director

Head of BAPPEDA, Provincial Government of DKI Jakarta

Project Manager

Head of Dinas Sumber Daya Air, Provincial Government of DKI Jakarta

Members

"From BAPPEDA"

Head of Infrastructure and Environmental Division of BAPPEDA, DKI Jakarta

- Head of subfields of Water Management, Hygiaene and Environment

"From Dinas Sumber Daya Air"

Head of Division of Raw Water, Water Supply and Waste Water, DKI Jakarta

- Head of Sub-Division of Raw Water, Water Supply and Waste Waste Water Planning, DKI Jakarta

"From PD PAL Jaya"

President Director, PD PAL Jaya

- Director of Technical Division, PD PAL Jaya
- Head of Program & Development Division, PD PAL Jaya

"From DGHS"

Director of Environmental Sanitation Development, DGHS

- Head, Sub-Directorate of Wastewater, Directorate of Environmental Sanitation, DGHS

資料4-3　討議議事録（第1回JCC（2015年10月23日））

MINUTES OF MEETING
BETWEEN
AUTHORITIES CONCERNED OF
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA
AND
JICA EXPERT TEAM
ON
JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR IMPROVING PLANNING CAPACITY FOR THE SEWERAGE SYSTEM IN DKI JAKARTA

Jakarta, 23th October, 2015

Mrs. Tuty Kusumawati	Mr. Minoru MATSUMOTO
Head of Regional Development Planning Board Jakarta Capital City Government	Chief Advisor The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta

SUMMARY OF THE MEETING

Title	The 1st Joint Coordinating Committee (JCC), Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta		
Date and Time	23th October, 2015 9:00am~10:30am	**Place**	Ruang Rapat1 Regional Development Planning Board Jakarta Capital City Government
Chair	Ms. Tuty Kusumawati, Head of Regional Development Planning Board Jakarta Capital City Government		
Attended	See Attachment 1		

ITEM	POINTS	ACTION
Project Overview	● Mr. Minoru MATSUMOTO, Chief Advisor of the Project, presented the project overview (Attachment 2) to depict the outline of the Project such as the necessity of the project, purpose of the project, the project outputs and the challenge for the project.	Approved
	● The changes of the membership of JCC (Attachment 3) and the Project Implementing Agency (Attachment 4) because of organizational reform were also reported.	Confirmed
Plan of Operation	● Mr. Takeshi NABETA, Project coordinator/ Institutional Development Expert of the Project (currently being processed), presented the Project's Plan of Operation (attachment 5).	Approved
	● It was also mentioned that details of the work plan would be shown after the consultation with JICA expert team and counterpart, waiting for other experts.	Notified
AOB	● BAPPEDA requested assistance for the action of data collection, survey, etc. in its office.	JICA admitted to send a local consultant to BAPPEDA from the project.
	● JICA asked the Indonesia side to confirm the counterpart list (Attachment 6).	Approved
	● JICA proposed to hold monthly regular meeting by counterpart.	Confirmed
	● JICA requested to provide the project work space toward the full-fledged implementation of the project. ➢ Up to 8 people of office space at Dinas Tata Air ➢ Up to 2 people of work space at BAPPEDA and PD PAL Jaya	Confirmed

Theme	: The first Joint Coordinating Committee (JCC)
Day/Date	: Friday, 23 October 2015
Venue	: Meeting Room 1, Bappeda of DKI Jakarta Province
Time	: 09:00am – 10:30am
Participants	: Attachment 1

The first Joint Coordinating Committee (hereinafter referred to as "JCC") for "The Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta" was held for the purpose of confirming the project overview, the plan of operation and discussing issues that may arise during the implementation of the project. The content of the meeting is as follows;

1. Opening by Mrs. Tuty Kusumawati, Head of Bappeda, Provincial Government of DKI Jakarta, as Project Director.

2. Opening Session

   2.1. Mr. TOMIHARA Takayuki, Project Formulation Advisor, JICA Indonesia Office

   In the opening remarks, Mr. Tomihara mentioned that JICA and the Government of Indonesia put priority cooperation on sewerage system development in Jakarta.
   In priority infrastructure development urgently improve administration capacity for sewerage system planning, construction, operation. This Technical Cooperation Project will contribute for institutional arrangement and improving planning capacity for sustainable sewerage system extension in DKI Jakarta.

   The cooperation for this project will highly achieve project purpose and performance. That will contribute improvement of administration capacity and human resources development in DKI Jakarta.

   This meeting is the first step of the project. This will find issues and challenges, administration capacity and improvement of road map in line with project activities.

   We hope this project will be a successful model and will contribute for our purpose of sustainable sewerage system development in DKI Jakarta and other parts of Indonesia.

   2.2. Mr. Riza Taftazani, Directorate of Environmental Sanitation Development, DGHS, Ministry of Public Works.

   Mr. Riza said that we hope this meeting can give clear objective, what the project has to do in preparing the capacity building for DKI Jakarta. Now, Directorate of Environmental Sanitation Development has a program for regular desludging program. We hope that, regular desludging for the area which will not covered by sewerage system can be also included in the regional regulation.

2.3. Ms. Safira, Bureau of City Planning and Environment, Provincial Government of DKI Jakarta

Ms. Safira said that they have some program in management wastewater. Now, Bureau of City Planning and Environment is preparing a regulation on management of waste water in DKI Jakarta. One of substances, they will accommodate the master plan, but also consider some accelerations in accordance with NCICD.

2.4. Mr. Norihide TAMOTO, Assistant Director, Sewerage and Waste water Management Dept., Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan.

Mr. Norihide TAMOTO mentioned that Japan and Indonesia have maintained good relationship for a long time. Nowadays, the both countries are working together closely in various fields to make this country more safe, more comfortable and more beautiful. In 2013, the Memorandum of Understanding (MoU) between MLIT and Ministry of Public Works of Indonesia, cooperation in infrastructure development has been concluded. Based on this MoU, bilateral meeting has been held once in a year.

He recognizes this project is crucial for developing sewerage. We would like to contribute to this project. Japanese side, MLIT as the Central Government, together with JICA and related organizations is strongly willing to assist, to support the promotion of sewerage development capacity building in DKI Jakarta.

He would like to talk about history and current status on the experience of their sewerage system in Japan. He hoped his short story is useful for us.

3. Presentation

3.1. Mr. Norihide TAMOTO, Assistant Director, Sewerage and Wastewater Management Dept., Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan

History and Current Status of Sewerage Works in Japan

- Origin of sewerage in Japan
  - Japan's modern sewerage started about 130 years ago in large cities, such as Tokyo and Yokohama.
  - The purpose of the sewerage works in that time is to prevent floods by rainwater and outbreak of infectious disease caused by residual insanitary water.
- Water Pollution of Tokyo in 1970
- Minamata Disease (in 1950- 1960)
- Percent of Sewerage population in Japan
- Historical change in water quality in public water bodies
- System to implement sewage works in Japan:
  - National government: Vision, Law/Regulation, technology standards, financing system (national subsidies, etc.)
  - Local government (sewage works administrator): Sewerage master plan, local ordinance, construction, operation, management.
  - Private companies: Assistance of implementation of sewerage works by public sector.
- Outline of Sewerage Law

- Transition of sewerage construction investment
- Cooperation with Foreign Countries by Public and Private Sector
  - In order to solve various issues, Japanese sewerage system has established strong partnership between public and private sector.
  - Japanese government expect Japanese companies will contribute to solution of the water and environmental problems in Indonesia
  - They would like to share their management know-how with government sectors in the world for realizing sustainable sewerage system in Indonesia.

Mr. Norihide TAMOTO said Japan and Indonesia has a strong relationship in the field of sewerage and so on. The cooperation between the two countries will never change from now on. So, in order to realize the beautiful Jakarta with sewerage system equipped under the leadership of Ministry of Public Works and working closely with related agencies such as DKI Jakarta Government, PD. PAL Jaya and so on.

He wants to suggest that they have opportunity on holding bilateral conference in December to accelerate the cooperation, maybe in the beginning of December.

3.2. Mr. Minoru MATSUMOTO, Chief Advisor of the Project.
Project for Improving the Planning Capacity for Sewerage System in DKI Jakarta

Presentation on Project Overview.

- Why we need the Project for Improving Planning Capacity?
  Sewerage system development not only requires facility construction but also house connection, tariff levy, financial, technology, public awareness, etc. to financially and technically sustainable sewerage system.

  However, sewerage is not only open in Jakarta under this technical cooperation. In particular, Jakarta and cities in Japan such as Tokyo, Osaka have rapidly urbanized and industrialized. Because these cities face the same problem on water pollution, flood, etc. Under this circumstance, we would like you to take advantage of Japan knowledge and experience.

- Road Map of the Sewerage System Development (Zone 1 & CD)
- How many staff do we need for sewerage works in DKI Jakarta?
- Enhanced organization in future
- Purpose and Output of Project
  - Overall goal : administrative capacity of sewerage management is improved
  - Project purpose : implementation structure of sewerage works in DKI Jakarta is strengthened
  - Outputs :
    1. Job allocation among relevant organizations in DKI Jakarta is clarified
    2. Planning capacity of staffs for sewerage system is enhanced
- Project organization chart
- Demarcation of Sewerage Works in DKI Jakarta
- Challenges for the project

3.3. Mr. Takeshi NABETA, Coordinator of the Project
Project for Improving the Planning Capacity for Sewerage System in DKI Jakarta.

Mr. Takeshi NABETA said that the objective of the project is capacity development. As the beginning of the project, we have to deeply understand the project activity, although it is just in brief. The details of the project should be discussed together among the relevant institutions of the sewerage system in DKI Jakarta.

Presentation on Plan of Operation:

- Output 1: Job allocation among relevant organizations in DKI Jakarta is clarified
- Output 2: Planning capacity of staffs for sewerage system is enhanced

Details of the work plan would be shown after the consultation with JICA expert team and counterpart, waiting for other experts.

4. Question & Answer, Closing

Mrs. Tuty Kusumawaty (Bappeda)
After all presentations, now we are discussing on our sewerage project. They will facilitate us with a kind of program regarding capacity building e.g. to improve staff capacity and organization nature among us especially in DKI Jakarta side, and DKI Jakarta with central government.

The idea of holding bilateral conference in December, I suggest JICA to ask facilitation from Central Government (Ministry of Public Works & Housing) and DKI Jakarta will check our available time on December.

Mr. Riza (Public Works):
He said that now they are preparing national law for sewerage. It may take 2 years for legalization; it means it will be issued in 2017. If there is local government regulation, it is better for them to compare. Central government issues Regulation in brief while the detail is in local governments. Central government should understand and support each provincial condition.

Mrs. Ikoh (BPLHD):
She said that they are now preparing river pollution management. As we know the water of Krukut and Pesanggrahan rivers are used for raw water/drinking water by PAM, The consequences is the river should be Class 2. As until now no rivers are classified to Class 2 due to their condition, thus at least for the rivers which will be used for drinking water, they must be in Class 2. Now, they are trying to achieve to Class 2.

Mr. Tomihara (JICA Indonesia Office):
Mr. Tomihara asked about the organizing of the working group and confirmed the counterpart personnel which was shown in a distributed material (Attachment 6). Coordination meeting is held once in a month in order to know the progress of the project.

Mrs. Driah Triastuti (Bappeda):
She said that they have a few staff member. If possible the project can also provide assistance for the action of data collection, etc. Mr. Tomihara said JICA admitted to send a local consultant to Bappeda.

Mr. Matsumoto (JICA Project):
Mr. Matsumoto requested to provide the project work space for 8 people at Dinas Tata Air. At the end of this year or at the beginning of next year, Short Term Experts/consultant team will come. Mrs. Tuti said Dinas Tata Air will have new building and ask the staff to spare the space for the project. Mr. Matsumoto said the counterpart training is scheduled on February 2016, consists of 2 participants from each institution (Bappeda, Dinas Tata Air, PD. PAL Jaya, and Ministry of Public Works).

End of the Document

Attachment 1

The List of Participants

The 1st Joint Coordinating Committee Meeting
Meeting Room 1, BAPPEDA of Provincial Government of DKI Jakarta
Friday, 23 October 2015

No.	Name	Institution
1	Mrs. Tuty Kusumawati	Head of BAPPEDA, Provincial Government of DKI Jakarta
2	Mr. Juniver Panjaitan	President Director, PD. PAL JAYA
3	Mr. Sahat Haposan	Head of Division of Waste Water Management, Water Management Office (Dinas Tata Air), Provincial Government of DKI Jakarta
4	Mrs. Driah Triastuti	Head of Sub Division of Water Management, Hygiene and Environment, BAPPEDA, Provincial Government of DKI Jakarta
5	Mr. Hendry	Head of Sub Division of Business Development, PD. PAL JAYA
6	Mr. Riza Taftazani	Directorate of Environmental Sanitation Development, DGHS, Ministry of Public Works.
7	Ms. Irika Alundary	Directorate of Settlement Infrastructure Integration, DGHS, Ministry of Public Works
8	Mr. Lobo	BAPPEDA, Provincial Government of DKI Jakarta
9	Mr. Fadly Halley T.	BAPPEDA, Provincial Government of DKI Jakarta
10	Ms. Kania Mayang	Directorate of Settlements and Housing BAPPENAS
11	Ms. Ikoh	Regional Environmental Management Agency (BPLHD), DKI Jakarta Province
12	Ms. Wita Sari	Regional Environmental Management Agency (BPLHD), DKI Jakarta Province
13	Ms. Safira	Bureau of City Planning and Environment, Provincial Government of DKI Jakarta
14	Mr. Norihide TOMOTO	Assistant Director, Sewerage and Wastewater Management Department, Water and Disaster management Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan
15	Mr. Takayuki TOMIHARA	Project Formulation Advisor, JICA Indonesia Office
16	Mr. Shu NISHI	JICA Expert Ministry of Public Works
17	Mr. SUZUKI	President PT. DACREA
18	Mr. Heyder	Manager of Water& Sanitation PT. DACREA
19	Mr. Minoru MATSUMOTO	Chief Advisor, Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta, JICA
20	Mr. Takeshi NABETA	Project Coordinator/ Institutional Development Expert (currently being processed) Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta, JICA
21	Mrs. Indah Rahayu	Project Secretary, Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta, JICA

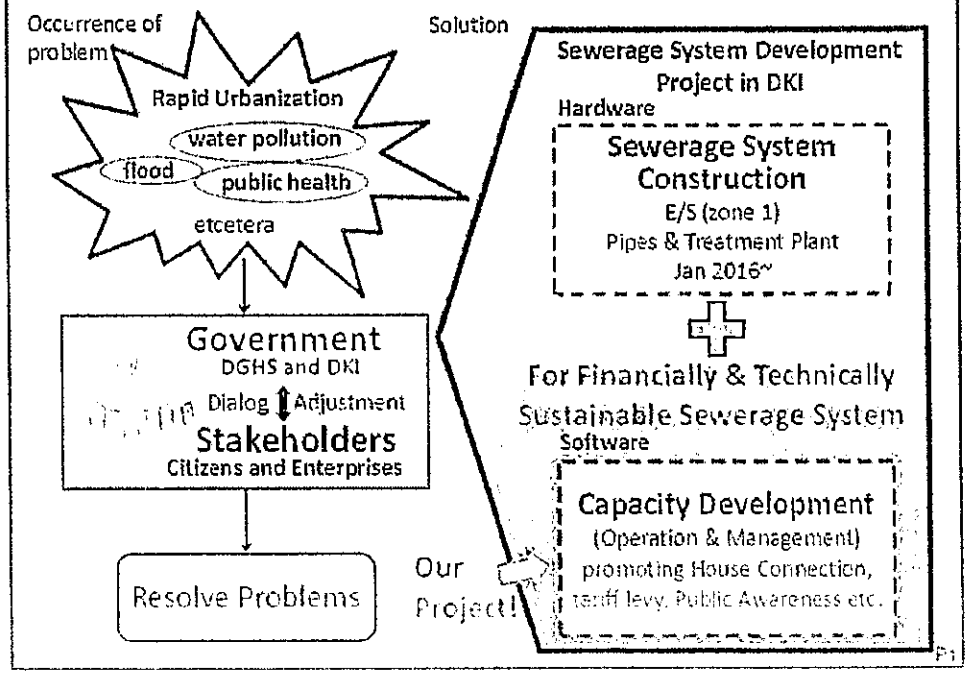
1st Joint Coordinating Committee Meeting

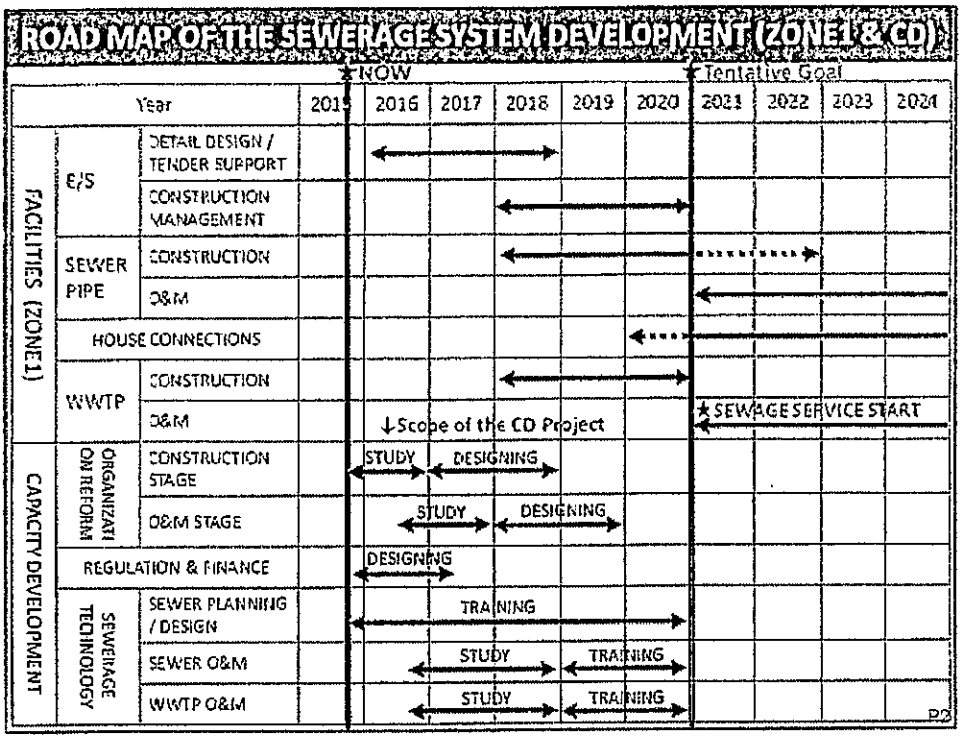
on

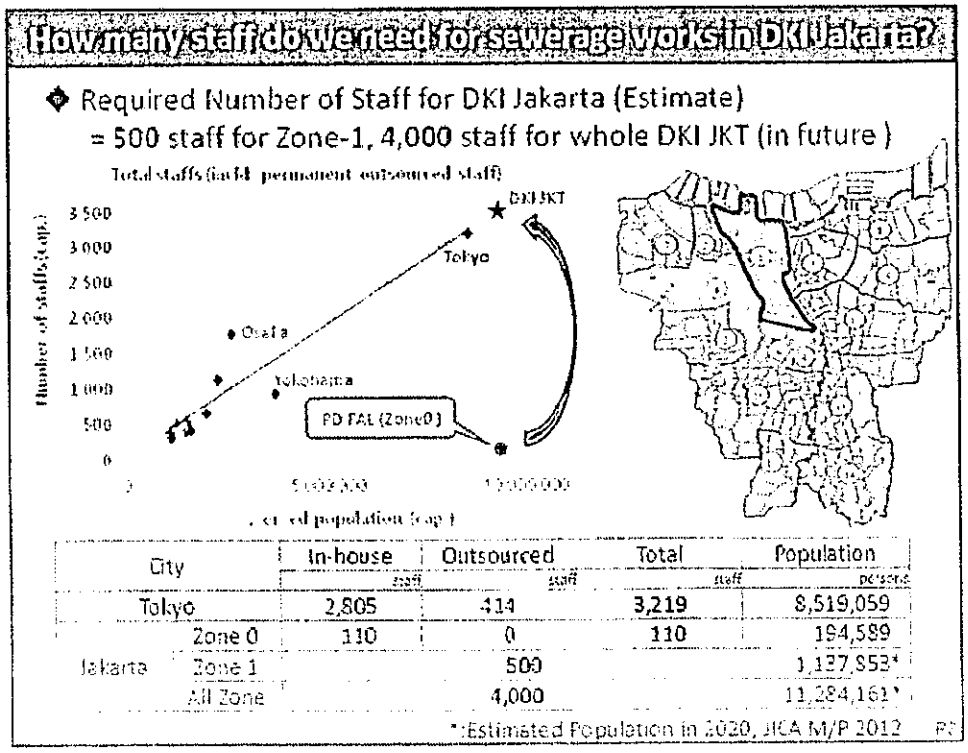
Project for Improving The Planning Capacity for Sewerage System in DKI Jakarta

23 October, 2015

Why we need the Project for Improving Planning Capacity ?



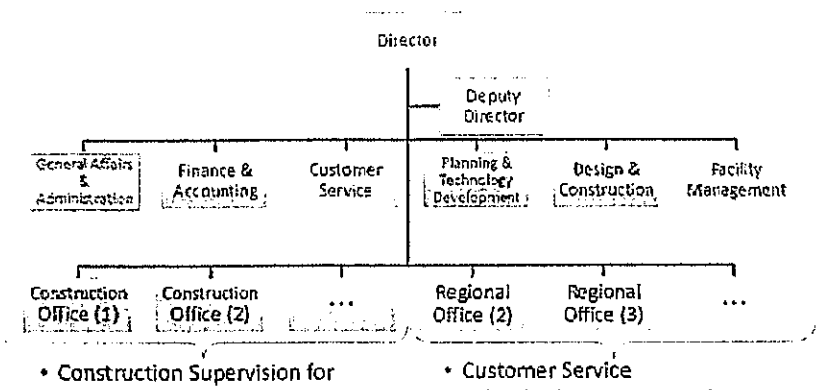




City		In-house	Outsourced	Total	Population
		staff	staff	staff	persons
Tokyo		2,805	414	3,219	8,519,059
Jakarta	Zone 0	110	0	110	194,589
	Zone 1		500		1,137,553*
	All Zone		4,000		11,284,161*

Enhanced Organization in Future

Sewerage construction and O&M require regional office for customer service as well as Management group



- Construction Supervision for Sewer pipes, House Connections, WWTP
- Customer Service
- O&M for Sewer pipes and WWTP

: Construction Phase

: Operation Phase

P4

Purpose and Output of Project

Overall Goal

- Administrative capacity of sewerage management is improved

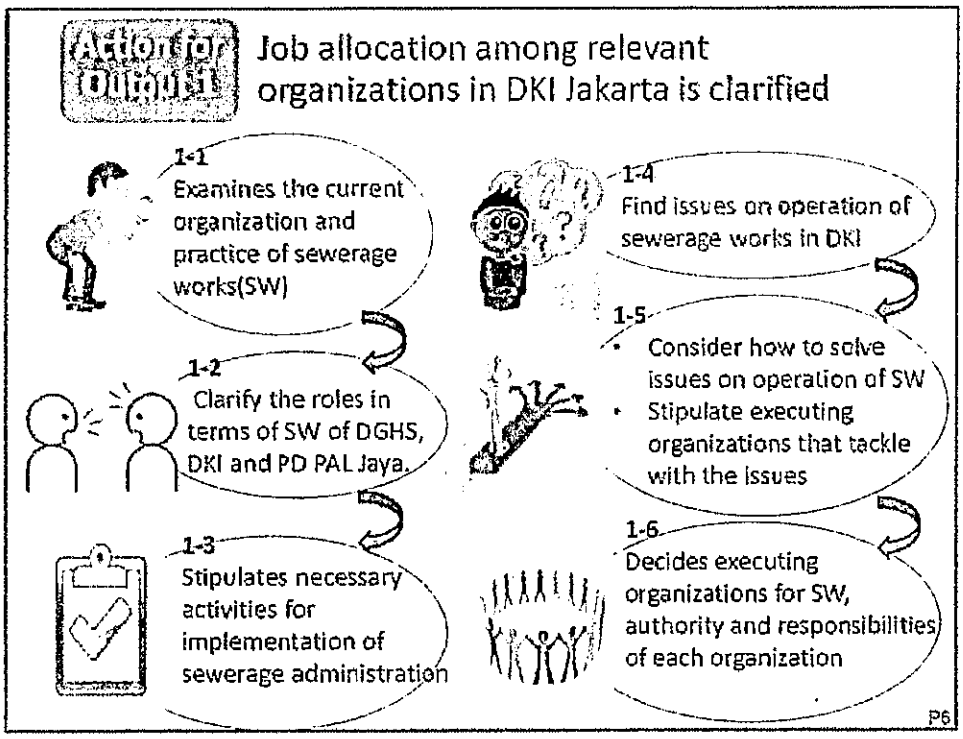
Project Purpose

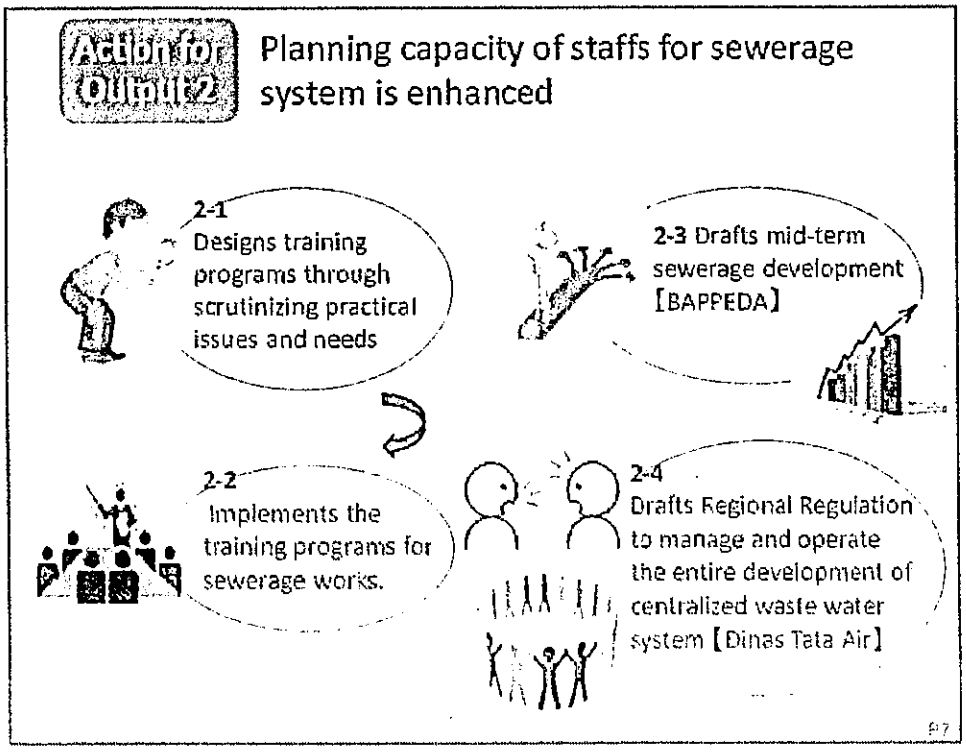
- Implementation structure of sewerage works in DKI Jakarta is strengthened

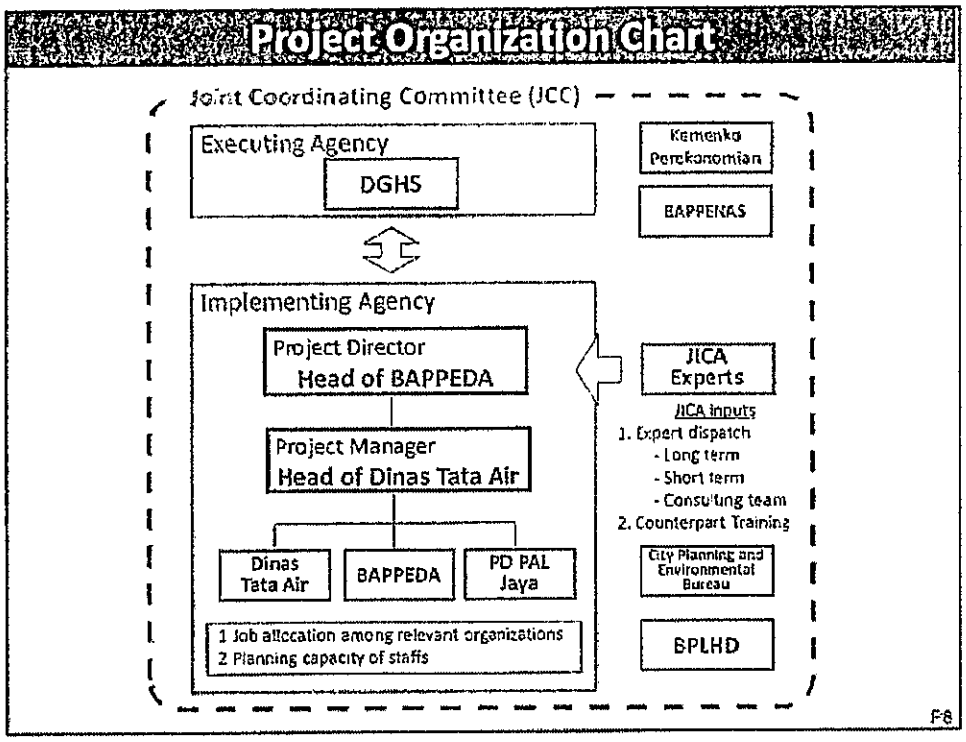
Outputs

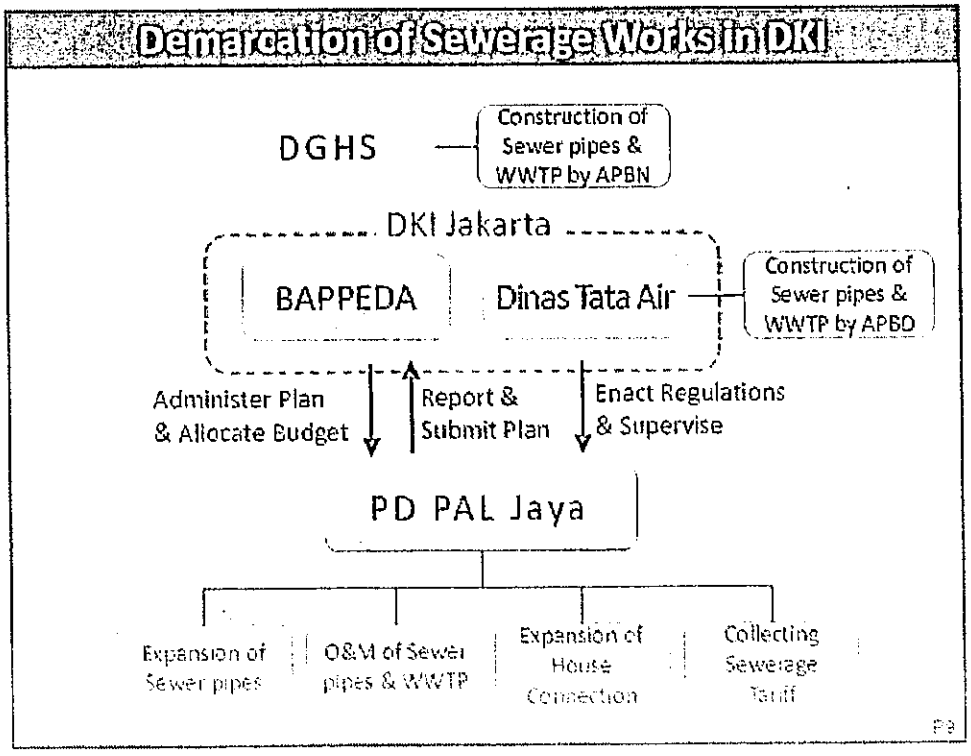
1 Job allocation among relevant organizations in DKI Jakarta is clarified

2 Planning capacity of staffs for sewerage system is enhanced


Action for Output 1
Job allocation among relevant organizations in DKI Jakarta is clarified
1-1
Examines the current organization and practice of sewerage works(SW)
1-2
Clarify the roles in terms of SW of DGHS, DKI and PD PAL Jaya.
1-3
Stipulates necessary activities for implementation of sewerage administration
1-4
Find issues on operation of sewerage works in DKI
1-5
Consider how to solve issues on operation of SW
Stipulate executing organizations that tackle with the issues
1-6
Decides executing organizations for SW, authority and responsibilities of each organization
P6


Action for Output 2
Planning capacity of staffs for sewerage system is enhanced
2-1
Designs training programs through scrutinizing practical issues and needs
2-2
Implements the training programs for sewerage works.
2-3 Drafts mid-term sewerage development [BAPPEDA]
2-4
Drafts Regional Regulation to manage and operate the entire development of centralized waste water system [Dinas Tata Air]
P7


Project Organization Chart
Joint Coordinating Committee (JCC)
Executing Agency
DGHS
Kemenko Perekonomian
BAPPENAS
Implementing Agency
Project Director
Head of BAPPEDA
Project Manager
Head of Dinas Tata Air
Dinas Tata Air
BAPPEDA
PD PAL Jaya
1 Job allocation among relevant organizations
2 Planning capacity of staffs
JICA Experts
JICA inputs
1. Expert dispatch
- Long term
- Short term
- Consulting team
2. Counterpart Training
City Planning and Environmental Bureau
BPLHD
P8


Demarcation of Sewerage Works in DKI
DGHS
Construction of Sewer pipes & WWTP by APBN
DKI Jakarta
BAPPEDA
Dinas Tata Air
Construction of Sewer pipes & WWTP by APBD
Administer Plan & Allocate Budget
Report & Submit Plan
Enact Regulations & Supervise
PD PAL Jaya
Expansion of Sewer pipes
O&M of Sewer pipes & WWTP
Expansion of House Connection
Collecting Sewerage Tariff
P9

Challenges for the project

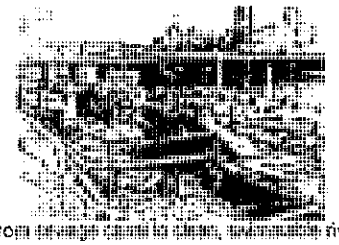
To meet for acceleration of Sewerage Development;

1. **Organizational challenge;**
   - Allocation of the sewerage works in each organization between DGHS, DKI and PD PAL Jaya
   - Rapid human resource development to accelerate sewer construction
   - Temporary personnel exchanges of each organization or taking advantage of the outsourcing
2. **Public relations challenge;**
   High connectivity rate of sewerage service will be realized by appropriate role sharing of government and citizens.
   - Financial support
   - Regulations and standards for House Connection
   - Hygiene education

P10

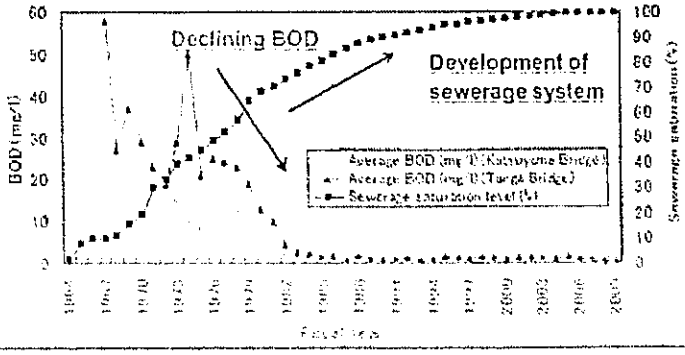
Improvements in Water Quality (in Kitakyusyu City)

◆ **Dramatic environmental rebirth with more than 40 years of improvements of the sewerage system in Kitakyushu City**



From sewage [illegible] river

People can swim today in Murasakigawa River



Ayu living in clear waters

P11

Joint Coordinating Committee

1. Function

The Joint Coordinating Committee (hereinafter referred to as "JCC") will meet when necessary and at least twice a year in order to fulfill the following functions:

1) To formulate the work plan of the Project and to coordinate and monitor the overall progress of the Project in line with the Project Design Matrix;
2) To review the result of the work plan and to evaluate the progress of the Project based on the regular monitoring sheet;
3) To show solutions against challenges which may be found in JCC;
4) To direct relevant organizations;
5) To review and exchange views on major issues that may arise during the implementation of the Project; and
6) To discuss any other issue(s) pertinent to the smooth implementation of the Project.

2. Memberships

Chair

Head of BAPPEDA, Provincial Government of DKI Jakarta

Members of Indonesian Side

Head of Dinas Tata Air, Provincial Government of DKI Jakarta

Head of Bureau of City Planning and Environment, Provincial Government of DKI Jakarta

Head of BPLHD, Provincial Government of DKI Jakarta

President Director, PD PAL Jaya

Director of Environmental Sanitation Development, DGHS, Ministry of Public Works

Director of Settlement Infrastructure Integration, DGHS, Ministry of Public Works

Supporting Member

Assistant to Deputy Minister for Water Resources Infrastructure, Coordinating Ministry for Economic Affairs

Director of Settlements & Housing, BAPPENAS

Members of Japanese Side

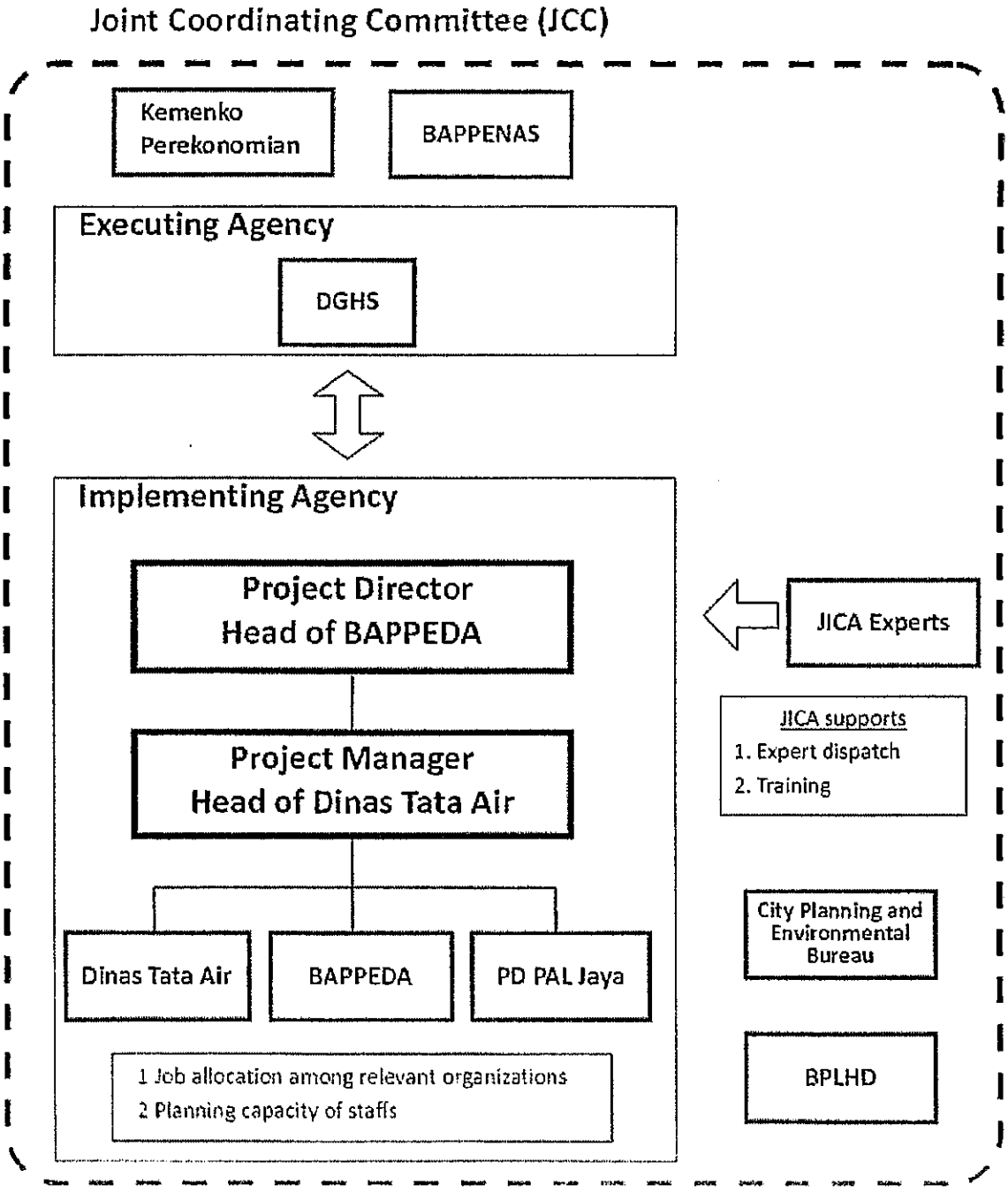
Representative of JICA
JICA Experts
Other personnel concerned, to be assigned by JICA, if necessary

Note

The Embassy of Japan in Indonesia may attend as observer(s)
Other personnel concerned, to be assigned by Chairperson of JCC, if necessary.

Attachment 4

Project Organization Chart
for
Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta



Kemenko Perekonomian: Water Resources Infrastructure of Coordinating Ministry for Economic Affairs of the Republic of Indonesia
BAPPENAS: National Development Planning Agency of the Republic of Indonesia
BPLHD: Regional Environment Management Board of DKI

Rencana Operasional

Plan of Operation

(Periode: JUN 2015 – MEI 2017)

Period: JUN 2015 – MAY 2017

Proyek untuk meningkatkan kapasitas perencanaan pada sistem air limbah di DKI Jakarta

Project for improving planning capacity for the sewerage system in DKI Jakarta

23 Okt 2015

Output 1. Penjelasan kegiatan masing-masing badan/organizasi terkait.

Job allocation among relevant organizations in DKI Jakarta is clarified.

1-1 Pertimbangan pelaksanaan kerja dan organisasi terhadap sistem air limbah saat ini melalui konsultasi dengan DKI Jakarta.

JICA scrutinizes the executing organization and practice of sewage works in DKI in consultation with DKI.

1-2 Penjelasan peran/kegiatan DGHS, DKI, BAPPEDA, DINAS PU dan PD PAL JAYA.

JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (BAPPEDA, Dinas PU, etc.) and PD PAL Jaya.

1-3 DKI dan PD PAL JAYA menetapkan kegiatan-kegiatan yang diperlukan untuk pelaksanaan sistem air limbah dengan menerima saran dari JICA Expert.

DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.

1-4 JICA dan DKI dan PD PAL JAYA menemukan masalah pada kegiatan pekerjaan air limbah di DKI.

JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.

1-5 DKI dan PD PAL Jaya mempertimbangkan bagaimana untuk memecahkan masalah pada operasi kegiatan air limbah dan menetapkan pelaksana organisasi yang menangani masalah tersebut serta menerima saran dari para ahli.

DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.

1-6 DKI menetapan organisasi-organisasi pelaksana untuk pekerjaan air limbah, wewenang dan tanggung jawab dari masing-masing organisasi.

DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.

Output 2. Meningkatkan kapasitas staf untuk perencanaan system air limbah

Planning capacity of staffs for sewerage system is enhanced.

2-1 JICA merencanakan program pelatihan dalam rangka meningkatkan kapasitas staf yang menangani sewerage melalui pengamatan masalah dan kebutuhan praktis dalam konsultasi dengan DKI.

JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.

2-2 JICA melaksanakan program pelatihan untuk pekerjaan saluran air limbah.

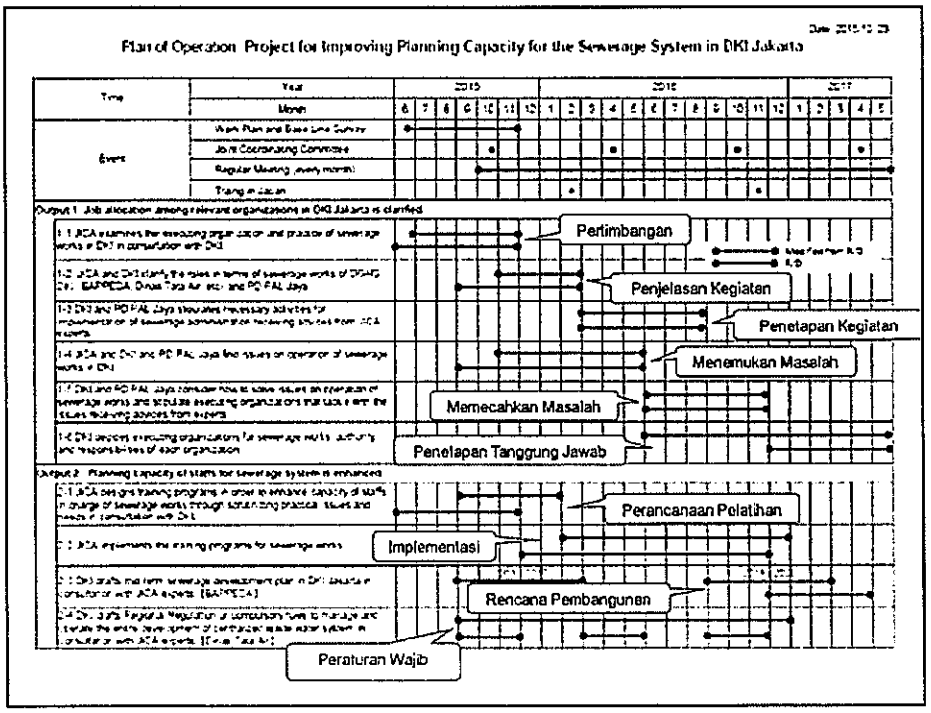
JICA implements the training programs for sewerage works.

2-3 DKI draft rencana pembangunan saluran air limbah jangka menengah di DKI Jakarta dan konsultasi dengan para ahli JICA.

DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.

2-4 DKI draft Peraturan Daerah atau peraturan wajib untuk mengelola dan mengoperasikan pengembangan seluruh sistem air limbah terpusat dalam konsultasi dengan para ahli JICA.

DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.



Output 1. Penjelasan kegiatan masing-masing badan/organizasi terkait.
Job allocation among relevant organizations in DKI Jakarta is clarified.

1-1 Pertimbangan pelaksanaan kerja dan organisasi terhadap sistem air limbah saat ini melalui konsultasi dengan DKI Jakarta.
JICA scrutinizes the executing organization and practice of sewage works in DKI in consultation with DKI.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Kegiatan-Survey organisasi untuk klarifikasi kondisi saat ini *Activity-Survey of organizations for clarification of condition now*																								

1-2 Penjelasan peran/kegiatan DGHS, DKI, BAPPEDA, DINAS PU dan PD PAL JAYA pada Air Limbah.
JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (BAPPEDA, Dinas PU, etc) and PD PAL Jaya.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Workshop tentang peran dalam hal pekerjaan air limbah di Jakarta. (Menggunakan hasil Kegiatan-survei dan rekomendasinya) *Workshop on roles in terms of sewerage work at Jakarta.(Using the result of Activity-survey and its recommendation)*																								

Pertemuan untuk persiapan rekomendasi tentang peran dalam hal pekerjaan air limbah dari organisasi-organisasi terkait dengan sistem air limbah di Jakarta. *Meeting to prepare recommendation about roles in terms of sewerage work of organizations concerned with system sewerage in Jakarta.*																								

1-3 DKI dan PD PAL JAYA menetapkan kegiatan-kegiatan yang diperlukan untuk pelaksanaan sistem air limbah dengan menerima saran dari JICA Expert
DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Pemantauan kegiatan *Monitoring of Activities*																								
Pertemuan untuk konfirmasi kegiatan *Meeting for confirmation of Activities*																								

1-4 JICA dan DKI dan PD PAL JAYA menemukan masalah pada kegiatan pekerjaan air limbah di DKI

JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Pemantauan kegiatan *Monitering of Activities*																								
Pertemuan untuk menemukan masalah dalam pengoperasian kegiatan kerja air limbah *Meeting for finding issues in the operation of Activities of sewerage work*																								

1-5 DKI dan PD PAL Jaya mempertimbangkan bagaimana untuk memecahkan masalah pada operasi kegiatan air limbah dan menetapkan pelaksana organisasi yang menangani masalah tersebut serta menerima saran dari para ahli.

DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Pemantauan Kegiatan *Monitering of Activities*																								
Pertemuan untuk memecahkan masalah dalam pengoperasian kegiatan sistem air limbah *Meeting to solve problems in the operation of sewerage system*																								

1-6 DKI menetapan organisasi-organisasi pelaksana untuk pekerjaan air limbah, wewenang dan tanggung jawab dari masing-masing organisasi.

DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Perencanaan dini																								
Pemantauan Kegiatan *Monitering of Activities*																								
Pertemuan untuk menetapan organisasi-organisasi sesuai dengan pelaksanaan sistem air limbah di Jakarta. *Meeting to establish organizations in accordance with the implementation of the waste water system in Jakarta.*																								

Output 2. Meningkatkan kapasitas staf untuk perencanaan system air limbah

Planning capacity of staffs for sewerage system is enhanced.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
2-1 JICA merencanakan program pelatihan dalam rangka meningkatkan kapasitas staf yang menangani sewerage melalui pengamatan masalah dan kebutuhan praktis dalam konsultasi dengan DKI. *JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.*																								
2-2 JICA melaksanakan program pelatihan untuk pekerjaan saluran air limbah. *JICA implements the training programs for sewerage works.*																								
2-3 DKI draft rencana pembangunan saluran air limbah jangka menengah di DKI Jakarta dan konsultasi dengan para ahli JICA. *DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.*																								

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2-4 DKI draft Peraturan Daerah atau peraturan wajib untuk mengelola dan mengoperasikan pengembangan seluruh sistem air limbah terpusat dalam konsultasi dengan para ahli JICA. *DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.*																								

Terima kasih

Attachment 6

Member List of Counterpart personnel

Project Director

Head of BAPPEDA, Provincial Government of DKI Jakarta

Project Manager

Head of Dinas Tata Air, Provincial Government of DKI Jakarta

Members

"From BAPPEDA"

Head of Infrastructure and Environmental Division of BAPPEDA, DKI Jakarta

- Head of subfields of Water Management, Hygiene and Environment

"From Dinas Tata Air"

Head of Division of Waste Water Management, DKI Jakarta

- Head of Sub-Division of Waste Water Planning and Development

"From PD PAL Jaya"

President Director, PD PAL Jaya

- Director of Technical Division, PD PAL Jaya
- Head of Program & Development Division, PD PAL Jaya

"From DGHS"

Director of Environmental Sanitation Development, DGHS

- Head, Sub-Directorate of Wastewater, Directorate of Environmental Sanitation, DGHS

資料4-4　討議議事録（第2回JCC（2016年6月1日開催、2016年8月1日署名））

"The Second Joint Coordination Committee"

MINUTES OF MEETING
BETWEEN
AUTHORITIES CONCERNED
OF
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA
AND
JICA EXPERT TEAM ON JAPANESE TECHNICAL COOPERATION
FOR
THE PROJECT FOR IMPROVING PLANNING CAPACITY FOR THE SEWERAGE SYSTEM IN DKI JAKARTA

Jakarta, 18 August, 2016

Mrs. Tuty Kusumawati	Mr. Minoru MATSUMOTO
Head of Regional Development Planning Board Jakarta Capital City Government	Chief Advisor The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta

SUMMARY OF THE 2nd JCC MEETING

Title	The 2nd JCC meeting, Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta		
Date and Time	1st June, 2016 09:00am~11:30am	**Place**	Sabang 4 Meeting Room, Hotel Mercure Sabang, Jakarta
Chair	Ms. Tuty Kusumawati, Head of Regional Development Planning Board, Jakarta Capital City Government		
Attended	See Annex A		

ITEM	POINTS	ACTION
Progress of the 1st year & PO/Annual Work Plan of the Second year	● Mr. NABETA Takeshi (Coordinator of the Project) presented the Progress of the 1st year and PO/Annual Work Plan of the 2nd year	Approved
	● Mr. KANAI Shigeo (Chief of Consultant Team) presented the Conceptual Diagram of Training in DKI Jakarta	Approved
Work Plan of Training	● Mr. Tanozisochi (Directorate of Integration on Settlement Infrastructure, Ministry of Public Works & Housing) request to visit the preceding sewerage developing cities in Indonesia such as Yogyakarta and Denpasar for comparative study. ● Mr. Erwin Marphy Ali (PD PAL Jaya) suggested the importance of on-site system for speedy waste water management in DKI Jakarta and ask to incorporate more on-site system in the training plan. ● Mr. Agus Trijono (Head of Waste Water Division, Water Management Agency) proposed to expand number of target organizations for the next training in Japan, such as BPTSP (Jakarta One-Stop Integrated Services Agency), Biro PKLH (Bureau of City Planning and Environment).	● Mr. NABETA Takeshi (Coordinator of the Project) suggested inviting experienced staff from Bali as a lecturer at a seminar in the project.
AOB	● Mr. NABETA Takeshi (Coordinator of the Project) asked to hasten the administration processes for C/P training in Japan.	● Ms. Tuty Kusumawati (Head of BAPPEDA) explained the procedure and agreed to further efforts.

The Second Joint Coordination Committee,
Project for Improving Planning Capacity for
the Sewerage System in DKI Jakarta
1st June 2016

A. Introduction

1) The second meeting of Joint Coordination Committee (hereinafter referred to as "JCC") was held in Jakarta on 1st June 2016 on the Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta (hereinafter referred to as "the Project"), based on the Record of Discussion between the Government of the Republic of Indonesia and Japan International Cooperation Agency on Japanese Technical Cooperation Project for Sewerage Program of DKI Jakarta signed on 10th December 2014 (hereinafter referred to as "RoD").

2) Mrs. Tuty Kusumawati, Head of Regional Development Planning Agency (BAPPEDA), Jakarta Capital City Government (DKI Jakarta) as the Chair, opened by welcoming all participants and expressing her appreciation with the assistance of the Government of Japan. She also delivers her hope with great anticipation that JICA's cooperation for DKI Jakarta would be expanded in order to accelerate Jakarta City Development.

3) Mr. HARADA Tetsuya, Senior Representative of Japan International Cooperation Agency (JICA) in Indonesia, as the observer, also expressed related cooperation works in sewerage program by DKI Jakarta, DGHS and JICA. And then he gave general information about schedule and progress on the engineering service for Zone 1 of the sewerage construction project of DKI Jakarta.

4) **Annex A** contains the list of participants of both Japanese and Indonesian sides. The meeting agenda and meeting materials are attached as **Annex B**.

5) The results of second meeting of Joint Coordination Committee (JCC) held in this time (as shown in separate Minutes of Meeting), the authorities concerned of Indonesia and JICA hereby agreed as follows:

B. Presentations / Plan and progress of the Project

1) Mrs. Tuty Kusumawati, Head of BAPPEDA, DKI Jakarta presented the Waste Water Management Plan in DKI Jakarta.

2) Mr. Matsumoto, Chief Advisor of Project presented the Project Overview.

3) Mr. Nabeta, Coordinator of Project presented the Progress of the 1st Year and PO/Annual Work Plan of the 2nd Year, especially the activities for the Output 1 (Job allocation among relevant organizations in DKI Jakarta is clarified.).

4) Mr. Kanai, Team leader of Japanese Consultant Team also presented the activities for Output 2 (Planning capacity of staffs for sewerage system is enhanced) with the Conceptual Diagram of Training in DKI Jakarta.

5) The Committee endorsed the 2nd year's annual work plan which was presented by each representative. The Committee agreed that additional suggestions arose from the meeting; those would be adopted and developed in the implementation of the second year's Annual Work Plan.

C. Exchange of Views

- Mr. Yus Yani (Coordinating Ministry of Economic Affairs (CMEA))
  - Jakarta sewerage system is now included in the national strategic project.
  - Priority of Projects on the strategic has been analyzed and evaluated by KPPIP which is established in the CMEA.

- Mr. Tanozisochi (Directorate of Integration on Settlements Infrastructure, DGHS)
  - Outcome of training is to improve the planning capacity of DKI Jakarta Sewerage System in line with the big program of NCICD.
  - I can't find the relation between the Project activities and 14 zone programs, because of the 14 zone programs still is in D/D or E/S stage.
  - Target of training is very important, so the target must be related with the ongoing work/programs. For the comparative study in training, it is better to see sewerage works of Yogyakarta and Denpasar.

- Mr. Nugroho Tri Utomo (Director of Housing and Settlements, BAPPENAS)
  - BAPPENAS reviews NCICD project with related water issues in six months.
  - Sewerage development project in DKI Jakarta is now the prioritized project for NCICD. To meet NCICD project, the sewerage development in DKI Jakarta should complete until 2030.
  - Interceptor system is an effective method to collect the waste water quickly because there are lots of difficulties for pipe connections to each household.
  - O&M of the sewerage system should be considered from at the stage of planning of the project.

- Mr. Erwin Marphy Ali (PD PAL Jaya)
  - The DKI Jakarta sewerage system development cannot be faster due to based on experience of PD Pal Jaya. To development piping system, we will need the large land space for installation, so developing of cities will take a long time.
  - As for the waste water treatment system in DKI Jakarta, we use on-site system, but the system is no standardized, no monitoring and no well-managed. And also desludging from each household hasn't done regularly. This is the problem we have to improve. To improve the condition of water quality discharged from the city, we need the training which regarding on-site system besides for sewerage system.
  - In 2022, we have to reach the coverage of wastewater management for off-site system 65% and on-site system 35%. So we have to think that how to prepare the funding source and its procedure.

- Mr. Cipta Aditya (City Infrastructure and Environmental Division, BAPPEDA, DKI Jakarta)
  - By the training in Japan in this February, I have gotten a lot of knowledge for improving personal capacity building. Also I have learned other things especially the planning skills of sewerage system.
  - I agree with Mr. Erwin's recommendation on financial matter. We have to think how to make a financial process and budgeting of the sewerage system project.

- In this connection, I would like to do everything on preparation of the mid-term development planning with our colleagues of PD PAL Jaya & PAM, CMEA, DGHS, etc.

➢ Mr. Agus Trijono (Head of Waste Water Division, Water Management Agency, DKI Jakarta)
  - There are many SKPD/organizations to be involved in the sewerage system.
  - Thereupon, I think it is needed that the other organizations, such as Bureau of City Planning and Environment, BPTSP (Jakarta One-Stop Integrated Service Agency), etc. could be involved to the training program from the next counterpart training in Japan.

➢ Ms. Yosi (Environmental Division, Bureau of City Planning and Environment, DKI Jakarta)
  - In the acceleration of the sewerage system project, we have a target of achievement of the stage 1 in 2015-2022 for 9 priority zones 1, 2, 3, 4, 5, 6, 7, 8, 10. In 2022, we expect 100% coverage of wastewater management with details 65% off-site system and 35% on-site system. The stage 2 for zone 9, 11, 12, 13 and 14 will be developed in 2022-2030.
  - We want to clarify the related work/section/authority with the sewerage system management in DKI Jakarta in order to dissolve overlapping task on authorities such as Dinas Tata Air, BPLHD and PD PAL Jaya. Thus we need information of the mechanism way for the task and authority for the SKPDs in wastewater management DKI Jakarta.
  - We also have to prepare the mid-term development plan on Wastewater Treatment Plant management about what we have to do in the next 5 years.

➢ Mr. HARADA Tetsuya (Senior Representative, JICA Indonesia Office)
  - JICA has been supporting for zone 1 and zone 6.
  - For zone 1, JICA provide the loan for the project. Consultant is being selected, we also will provide loan for construction.
  - For zone 6, additional study is being prepared. In the near future, we can conclude Loan Agreement for the consultant and contractor.
  - As we have regular meetings to speed up zone 1 and zone 6, so let us continue to support for Zone 1 and Zone 6.

➢ Mr. NABETA Takeshi (Coordinator, the Project for Improving Capacity for the Sewerage System in DKI Jakarta)
  - When we went to Bali in a official trip, we got some recommendations and suggestions from staff in SATKER of Bali Province. In the official trip, I have gotten a information that staff concerned with the Denpasar Sewerage Project is able to come to Jakarta as a lecturer for our project seminar.
  - Regarding training in Japan, administration process of Indonesia side took a long time at the last training. Because every government officials need procedure of official passport in regular way. For next training in Japan, every concerning organizations need to push official administration to speed up of procedure of official passport.

- We need starting discussion on the project landing before the 3rd JCC. Because the 3rd JCC will be held in this coming October, before 6 months of the Project finishing.
  We need to think the Project future if we need remake of project schemes such as extension of project period, Items and etc. And it takes time also.

➢ Ms. Tuty Kusumawati (Head of BAPPEDA, Special State Capital of Jakarta / DKI Jakarta)
- Regarding the official passport process at Indonesian side, it takes 2(two) months.
  However, every organizations shall be make a effort to early start of procedures.
- I agreed with Mr. Nugroho's suggestion that for the Sewerage Development Project in DKI Jakarta can focus on accelerating the NCICD.

➢ Mr. Eko Gumelar (Head of Sub Division of Wastewater Supervision and Maintenance, Water Management Office, DKI Jakarta)
- In this year, Dinas Tata Air has proposed a activity of RAPERDA (Draft on Regional Regulation) on the Sewerage System Management, but weren't approved.
- Thereupon, next year, we are going to propose Draft on Regional Regulation concerning wastewater management again, so I request budget for it in 2017.
- We have to learn many things from Japan which is related with JOKASO policy for on-site system.

D. Conclusions for the Project

1) The Committee confirmed the 1st year's progress of the Project.
2) The Committee endorsed the 2nd year's annual work plan of the Project which was presented by each representative in presentation.
3) For the Sewerage Development Project in DKI Jakarta can focus on accelerating the NCICD
4) All related organizations should support more strongly to the administration procedure/process for the Program of the Training in Japan. Especially for process of official passport for a civil servant of Indonesian government as a trainee.
5) Working Group meeting is important for project management in field level. According as the above mention, the Working Group Meeting should be continued to hold regularly.
6) Discussion of the landing of the Project should be started before the next JCC Meeting.

E. Other matters

The Committee agreed that the next meeting of JCC will be held in Oct 2016 to check progress of the 2nd year's implementation and discuss the landing of the Project.

Done and signed in Jakarta, Indonesia, on 18 August 2016, by the representative of both parties.

Annex A.

The 2nd Joint Coordination Committee
Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta (SWPJT)

Jakarta, 1 June 2015

List of Participants

I. Chairpersons

Ms. Tuty Kusumawati *(Chair)*,
Head of Regional Development Planning Board (BAPPEDA), Jakarta Capital City Government (DKI Jakarta)

Mr. Agus Trijono *(Co-chair)*,
Head of Waste Water Management Division, Water Management Office (Dinas Tata Air), Jakarta Capital City Government (DKI Jakarta)

II. Observers

Mr. Nugroho Tri Utomo,
Director of Housing and Settlements, State Ministry of National Development Planning (BAPPENAS)

Mr. HARADA Tetsuya
Senior Representative of JICA Indonesia Office, Japan International Cooperation Agency JICA Indonesia Office (JICA)

III. Participants from Japanese Side

Ms. Kitamura Keiko,
Project Formulation Advisor / JICA Indonesia Office

Ms. Juni Melani
Project Officer / JICA Indonesia Office

Mr. Matsumoto Minoru,
Chief Advisor, Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta (SWPJT-JICA)

Mr. Nabeta Takeshi,
Coordinator / Enhance organization structure, SWPJT-JICA

Ms. Indah,
Secretary of JICA Project, SWPJT-JICA

Mr. Kanai Shigeo,
Team Leader of Japanese Consultants Team, SWPJT-JICA

Ms. Takamizawa Kiyoko,
Deputy Team leader, Japanese Consultants Team, SWPJT-JICA

Mr. Ohasi Takafumi,
Coordinator of Japanese Consultants Team, SWPJT-JICA

Mr. Hashimoto Kazushi,
Expert for Sanitation, Japanese Consultants Team, SWPJT-JICA

Mr. Sato Kazuaki,
Expert for Mid-term Development Plan, Japanese Consultants Team, SWPJT-JICA

Mr. Inoue Yakuro,
Expert for Provincial Regulations, Japanese Consultants Team, SWPJT-JICA
Mr. Nishi Shu,
Advisor for Sewage Management (Expert JICA), Directorate of Environmental Sanitation Development, Directorate General of Human Settlements, Ministry of Public Works and Housing (DGHS)

IV. Participants from Indonesian Side

DGHS / Direktorat Cipta Karya"

Mr. Tanozisochi
Directorate of Integration on Settlement Infrastructure, DGHS, Ministry of Public Works & Housing

Ms. Irika A.
Directorate of Integration on Settlement Infrastructure, DGHS, Ministry of Public Works & Housing

Ms. Erly Silalahi
Directorate of Environmental Sanitation Development, DGHS, Ministry of Public Works and Housing

Mr. Dwiki
Working Unit (SATKER) of Settlement Environmental Sanitation, JABODETABEK, DGHS, Ministry of Public Works and Housing

BAPPEDA

Mr. Cipta Aditya
Head of City Infrastructure and Environmental Division, BAPPEDA, Jakarta Capital City Government (DKI Jakarta)

Mr. Haley
City Infrastructure and Environmental Division, BAPPEDA, DKI Jakarta

Mr. Hari
Secretariat, BAPPEDA, DKI Jakarta

Dinas Tata Air

Mr. Eko Gumelar
Head of Sub-Division of Waste Water Supervision & Maintenance, Waste Water Management Division, Water Management Office (Dinas Tata Air), DKI Jakarta

Mr. Rezky Arie Pranata
Head of Sub-Division of Waste Water Construction, Waste Water Management Division, Dinas Tata Air, DKI Jakarta

PD PAL Jaya

Mr. Erwin Marphi Ali
Technical Manager, Waste Water Management Enterprise of DKI Jakarta (PD PAL Jaya)

Mr. Rachmadi
Technical Planning Division, PD PAL Jaya

BPKLH

Mr. Mahmuri

Head of Environmental Division, Bureau of City Planning and Environment (BPKLH), DKI Jakarta

Ms. Yosi Lusia

BPKLH, DKI Jakarta

Ms. Retno

BPKLH, DKI Jakarta

BPLHD

Mr. Aulia

Sustainable Resource Control and Management, Regional Environmental Management Board (BPLHD), DKI Jakarta

BAPPENAS

Ms. Kania Mayang

Directorate of Housing and Settlements, State Ministry of National Development Planning (BAPPENAS)

Coordinating Ministry of Economic Affairs

Mr. Yus Yani

Head of Division for Water Resource Conservation and Water Damage Control, Assistant Deputy for Water Resource Infrastructure, Coordinating Ministry of Economic Affairs

Ms. Ratu Rahmi

Division for Water Resource Conservation and Water Damage Control, Assistant Deputy for Water Resource Infrastructure, Coordinating Ministry of Economic Affairs

Mr. Dandi W.

Division for Water Resource Conservation and Water Damage Control, Assistant Deputy for Water Resource Infrastructure, Coordinating Ministry of Economic Affairs

Annex B.

The 2nd Joint Coordination Committee
Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta (SWPJT)

Jakarta, 1 June 2015

Meeting agenda and Meeting materials

PEMERINTAH PROVINSI DAERAH KHUSUS IBUKOTA JAKARTA
BADAN PERENCANAAN PEMBANGUNAN DAERAH
Jl. Medan Merdeka Selatan No. 8 -9 Telepon : 3842061 – 3842062 – 3842871, Fax : 3860521
Website bappedajakarta.go.id E-mail sekretariat@bapedadki.net
J A K A R T A
Kode pos : 10110

Nomor : 498/-084.6
Sifat : Segera
Lampiran : 2 (dua) lembar
Hal : Undangan rapat

27 Mei 2016

Kepada
Yth. Daftar Undangan Terlampir
di
Jakarta

Sehubungan dengan pelaksanaan The Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta, dengan ini saya mengharapkan kehadiran Saudara dalam pertemuan yang akan diselenggarakan pada

hari	: Rabu
tanggal	: 1 Juni 2016
pukul	: 08.30
tempat	: Sabang 5 Meeting Room Lt. 1, Hotel Mercure, Jl. KH. Agus Salim No. 11, Gambir, Jakarta Pusat
acara	: 2nd Joint Coordinating Commitee (JCC) "The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta"
pimpinan rapat	: Kepala Bappeda Provinsi DKI Jakarta

Atas perhatian dan kehadiran Saudara, diucapkan terima kasih.

Kepala Badan Perencanaan Pembangunan Daerah
Provinsi Daerah Khusus Ibukota Jakarta,

Lubis Kusumawati
NIP 196304291986032003

Tembusan :
1. Wakil Kepala Bappeda Provinsi DKI Jakarta
2. Sekretaris Bappeda Provinsi DKI Jakarta

Lampiran I Undangan Kepala Bappeda
Nomor : 4981-084.6
Tanggal : 27-5-2016

1. Construction and Disaster Management Attache, Embassy of Japan
2. Kementerian Koordinator Bidang Perekonomian
   up. Asisten Deputi Menko. Perekonomian Bidang Infrastruktur Sumber Daya Air
3. Kementerian Perencanaan Pembangunan Nasional/BAPPENAS
   up. Direktur Permukiman dan Perumahan
4. Kementerian Pekerjaan Umum dan Perumahan Rakyat
   up. a. Direktur Keterpaduan Infrastruktur Permukiman (KIP), Ditjen. Cipta Karya
   b. Kepala Subdit. Air Limbah, Direktorat Pengembangan Penyehatan Lingkungan Permukiman (PLP), Ditjen. Cipta Karya
   c. Kepala Subdit. Standardisasi dan Kelembagaan, Direktorat Pengembangan PLP, Ditjen. Cipta Karya
5. Kepala BPLHD Provinsi DKI Jakarta
   up. a. Kepala Bidang Pencegahan Dampak Lingkungan dan Sumber Daya Berkelanjutan
   b. Kepala Subbidang Pengendalian Sumber Daya Berkelanjutan
6. Kepala Dinas Tata Air Provinsi DKI Jakata
   up. a. Kepala Bidang Air Limbah / Air Kotor
   b. Kepala Subbidang Perencanaan Air Limbah / Air Kotor
7. Kepala Biro Penataan Kota dan Lingkungan Hidup Setda Provinsi DKI Jakarta
   up. a. Kepala Bagian Lingkungan Hidup
   b. Kepala Subbagian Sanitasi dan Pencemaran
8. Direktur Utama PD PAL Jaya
   up. a. Direktur Pengembangan Bisnis
   b. Manager Teknik
9. Chief Representative of JICA Indonesia Office
10. JICA Experts Team

Kepala Badan Perencanaan Pembangunan Daerah
Provinsi Daerah Khusus Ibukota Jakarta,

Tuty Kusumawati
NIP 196604291986032003

Lampiran II Undangan Kepala Bappeda
Nomor : 4981-084.6
Tanggal : 27-5-2010

JADUAL ACARA

2nd Joint Coordinating Commitee (JCC)
"The Project for Improving Planning Capacity For The Sewerage System in DKI Jakarta"

Waktu	Kegiatan	Penanggung Jawab
08:30 - 09:00	Registrasi Peserta	Panitia
09:00 - 09:10	Pembukaan	Ms. Tuty Kusumawati Kepala BAPPEDA Provinsi DKI Jakarta
09:10 - 09:20	Perkenalan	Mr. Minoru Matsumoto, Chief Advisor of the Project
09:20 - 09:40	Presentasi oleh BAPPEDA Prov. DKI Jakarta	"Project Overview" Ms. Tuty Kusumawati "Waste Water Management Plan in DKI Jakarta"
09:45 - 10:15	Presentasi oleh Tim Konsultan JICA	"Progress Report"
10:15 - 10:45		"Plan of Operation"
11:55 - 12:00	Penutup	
12:00 -13:00	Makan Siang	

Kepala Badan Perencanaan Pembangunan Daerah
Provinsi Daerah Khusus Ibukota Jakarta,

Tuty Kusumawati
NIP 196304291986032003

OPENING SPEECH
ON EVENT
2nd Joint Coordinating Committee
"The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta"

by:

Ms. Tuty Kusumawati

Head of Regional Planning Development Board

PROVINCIAL GOVERNMENT OF DKI JAKARTA

ASSALAMMUALAIKUM WR. WB
GOOD MORNING LADIES AND GENTLEMENTS
OHAIYO - GOZAIMAS

His/Her Excellency,

- Chief Advisor of The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta
- JICA Consultant Experts Team
- Representative participants from Central Government of Republic Indonesia
- My fellow Provincial Government of DKI Jakarta Officials,
- Ladies and Gentlemen

- I would like to thank all of you for attending this 2nd Joint Coordinating Committee of "The Project for Improving Planning Capacity for The Sewerage System in DKI Jakarta". This is a continuation of previous JCC Meeting which held on last October 2015.

Ladies and Gentlements and Distinguished Guests

- Waste water issues in DKI Jakarta had been classified as emergency level and already harm the water bodies. PD PAL Jaya study in 2016, stated that more than 50% water body in Jakarta already infected by e-coli bacteria. Meanwhile the coverage area of sewerage waste water only 4% and the domestic waste still henced on septic tanks which has not been technically standardized.

- Sewerage development system is one of priority in infrastructure development in Jakarta that need to be implemented soon. This direction was stated by Governor since late 2014. He mentioned that all of waste water development, including off-site and on-site system, which was previously planned to be completed by 2030 could be accelerated to 2022.

- It is also in line with National Mid-Term Development Plan (RPJMN) 2015-2019 which fulfill national sanitation target 100-0-100 (100% clean water connection, 0% slums area, and 100% waste water connection)
- Jakarta needs a lot of efforts to achieve the target. Many aspects should be prepares paralelly as example planning, budgeting and financing, constructing, operating and maintenance (O/M), until improving the competencies of human resource.
- I hope the JICA experts could also transfers knowledge and information as much as possible to human resources of DKI Jakarta.

Ladies and Gentlements and Distinguished Guests

- Considering the outputs of this project to drafting Mid-Term Plan of Waste Water Sector and identify regulations that needed for accelerated implementation in DKI Jakarta, DKI Jakarta already form a dedicated working group consists of waste water related agencies or units i.e Environmental Management Board (BPLHD), Water Resource Agency and PD PAL Jaya.
- I hope JICA Expert Team and Central Government also could support us to achieve this project outputs.
- At the end, lets make this project benefits for both of us and hopefully DKI Jakarta waste water development could be implemented soon.
- Thank you for your attention.

WABILLAHII TAUFIK WAL HIDAYAH,
WASSALLAMU ALAIKUM WARAHMATULLAHI WABARAKATUH.

HEAD OF BAPPEDA

TUTY KUSUMAWATI

WASTE WATER MANAGEMENT PLAN OF DKI JAKARTA

Jakarta Capital City Administration

at

2nd Joint Coordinating Commitee (JCC) Meeting

June 1st, 2016

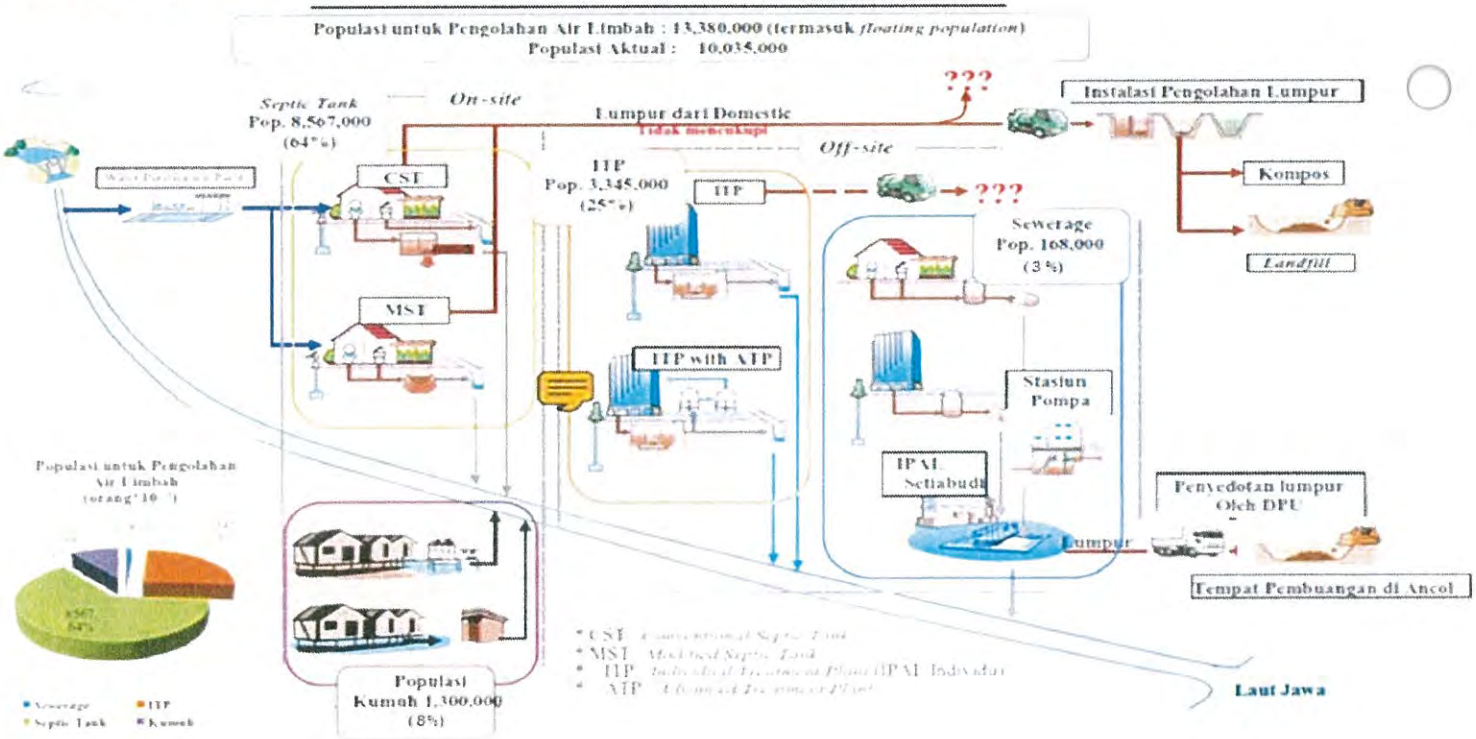
JAKARTA IN BRIEF

- Coverage area 662 Km²
- Inhabitants:
  - Night time : ± 10 millions
  - Day time : ± 12 millions
- 60% of north Jakarta is below mean sea level
- Traversed by 13 rivers which upstream is outside Jakarta and all end in Teluk Jakarta
- Land Subsidence is 5 – 10cm per year, mostly in North Jakarta
- Geomorphologically, Jakarta sits on a low-lying alluvial plain

SANITATION PROBLEMS IN JAKARTA

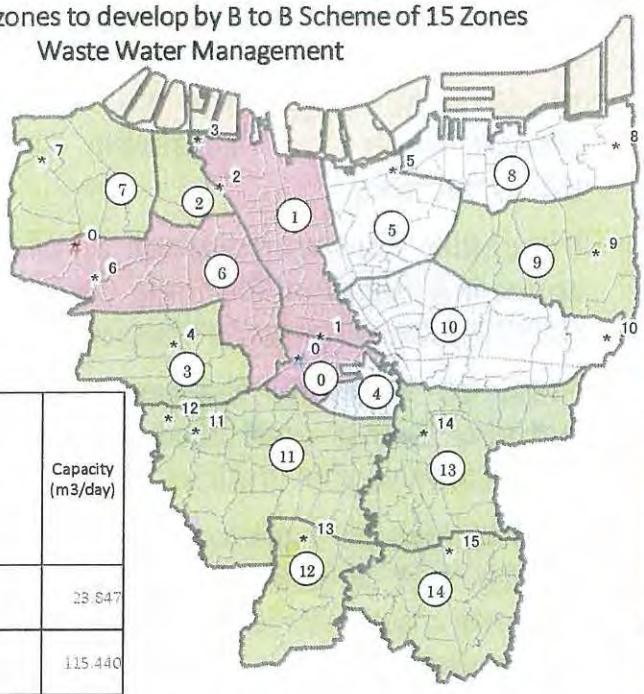
- Highly Population density in Jakarta sometimes made the deep well location placed close to each other and quite near to the septic tank
- Several pollution source could harms deep well, garbage bin, industry, beauty salon, mechanic workshops, storm water channel and river
- BPLHD study 2011 :
  - a. 41% of DKI Jakarta citizen has a deep well near to septic tank under 10 meter range
  - b. Pollution Indeks (IP) : From 13 rivers in DKI Jakarta → 9% rivers as medium polluted and 89% rivers are highly polluted
- From 28 existing ponds in DKI Jakarta, there are 24 ponds already infected by e-coli bacteria that comes from house hold/domestic waste water

Existing Condition of Waste Water



WASTE WATER TREATMENT

12 potential zones to develop by B to B Scheme of 15 Zones Waste Water Management

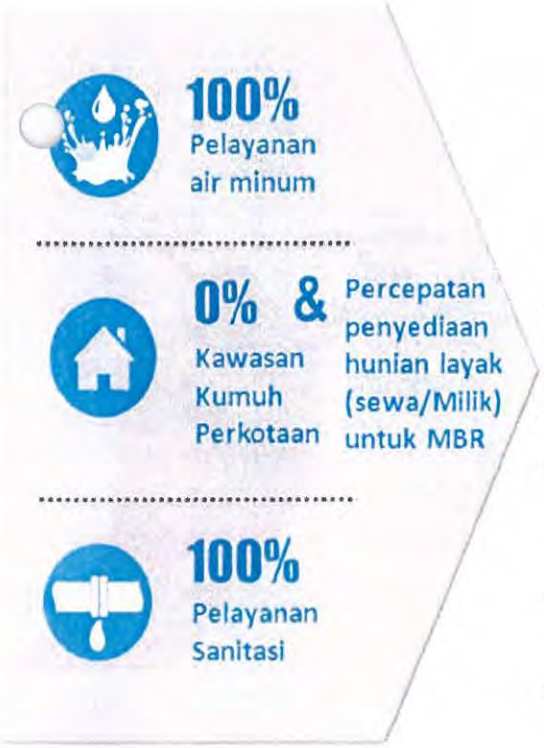


Zone No.	WWTP Sites	Capacity (m3/day)
2	Muara Angke	23.847
3	Srengseng City Forest	115.440
	Transfer s to WWTP Zone 10	

Action Plan (off – site system)				
Zone	Status	Years of Construction	Source	% Catchment Area
0	Existing	-	DKI	4
1 & 6	DED prepara	2019	JICA	19

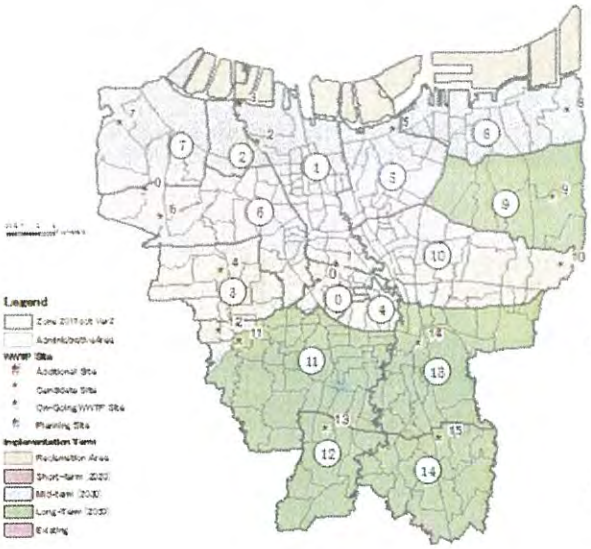
Action Plan (on – site system)					
Zone	Type	Years	Source	Method	% Catchment Area
0 - 14	Building	2016-2022	DKI	Communal	2

Source : Governor Regulation No. 41 year 2016



- ❑ Affordable housing is provided (rented/owned) for low income house holds to decreasing housing backlog
- ❑ Urban slum areas is decreased and reach target until 0% (none)
- ❑ Clean water connection target 100% is achieved through optimalization and new plants development, efficiency of drinking water increased, and a condussive environment friendly created
- ❑ Sanitation services 100% is achieved (domestic waste water, solid waste, and local drainage) at a basic needs level
- ❑ Bulding security and safety is increased, including it harmonization to surroundings

Current Issues of Zoning Development Plan



a. All of the WWTP site in 14 zones accomodated on Governor Regulation No. 41 year 2016 on Master Plan of Domestic Waste Water Infrastructure

b. Principally Governor agreed all of WWTP in 14 zones in a Regional Planning Coordination Board (BKPRD) Meeting on 23rd September 2014

c. Head of Bappeda Decree on Waste Water Working Group year 2016 to coordinating and discussion current topic of the project outputs

d. PD PAL Jaya is working on DED for Zone 2, 3 (4+10), 5, 7, 8 (exclude Zone 1 and Zone 6) to become a base for City Management Agency to make trace

Project Execution Plan

Image source: www.onealinc.com dan www.shutterstock.com

Image source: www.yesalesrecruitment.co.uk

Project Overview

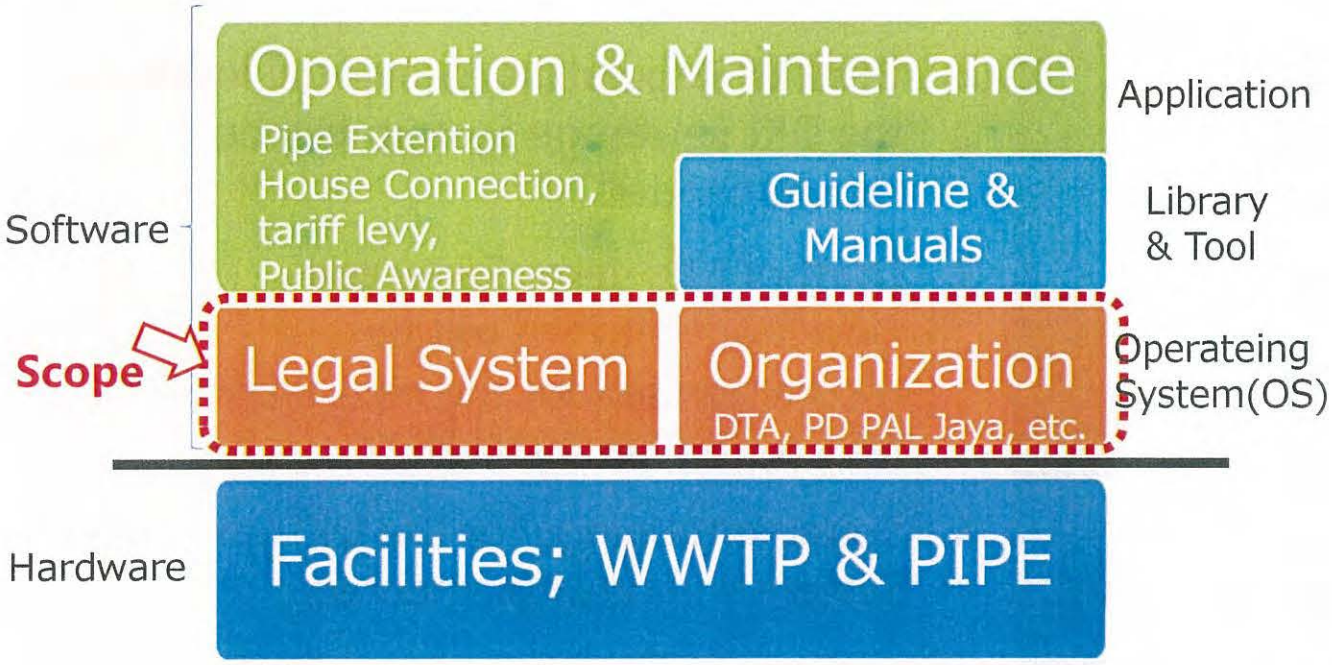
2nd Joint Coordinating Committee

1 June, 2016

Minoru Matsumoto, JICA Expert, Chief Advisor of the Project

Why we need the Project for Improving Planning Capacity ?

Sewerage system management requires technical and financial skills of the administrator.



Purpose and Output of the Project

Overall Goal

- Administrative capacity of sewerage management is improved

Project Purpose

- Implementation structure of sewerage works in DKI Jakarta is strengthened

Outputs

- Job allocation among relevant organizations in DKI Jakarta is clarified
- Planning capacity of staffs for sewerage system is enhanced

Main Targets

- Conduct training programs for sewerage works
- Drafts mid-term sewerage development plan
- Drafts regional regulation for sewerage works

P2

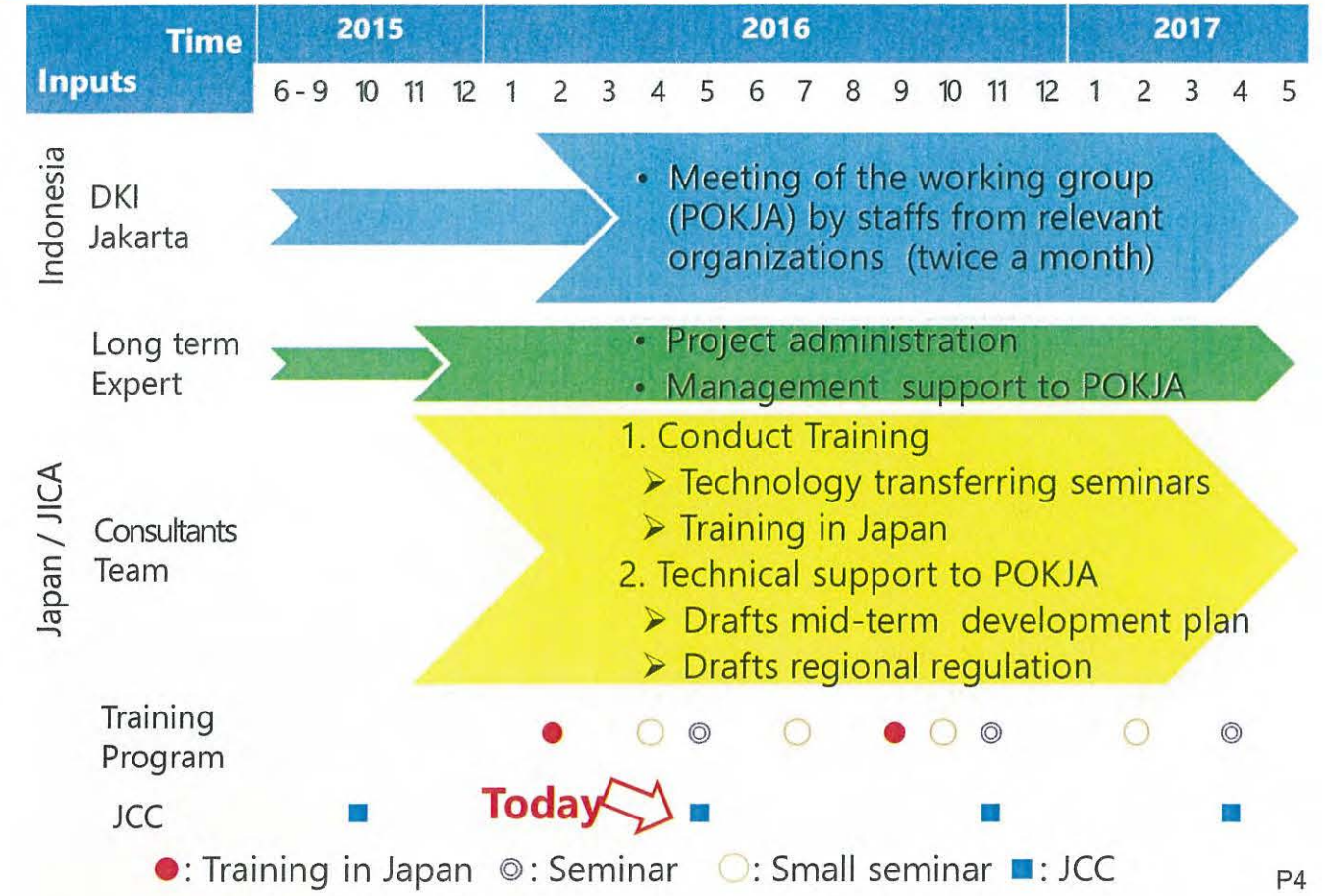
The expected concrete fruits of the Project

Fruits of the Project

1. Organizational function in the DKI Sewerage System will be clarified
2. Draft of Regulation (provincial level) on the DKI Sewerage System will be recommended
3. Draft of Mid-term Sewerage Development Plan will be recommended for the next BAPPEDA's Mid-term Plan 2018-2022
4. Suitable trainings for the DKI Sewerage System will be implemented.

P3

Timeline and Activities of the Project Team



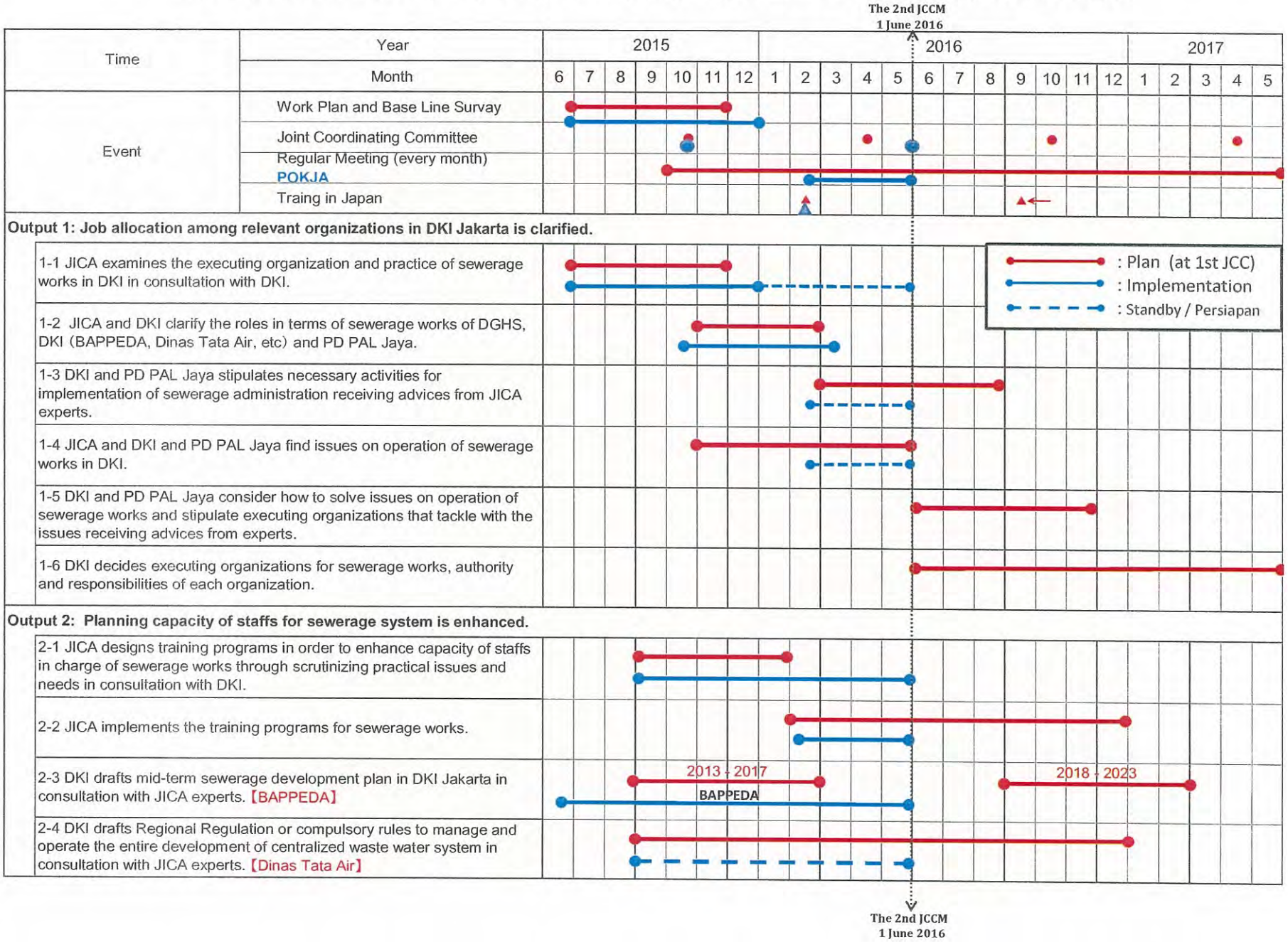
2nd Joint Coordinating Committee

Purpose of 2nd JCC

- To formulate the work plan and to monitor the progress of the Project
- To review the result of the work plan and to evaluate the progress of the Project
- To show solutions against challenges which may be found in JCC
- To review and exchange views on major issues that may arise during the implementation of the Project
- To discuss any other issue(s) pertinent to the smooth implementation of the Project.

Date: 1 June 2016

Plan of Operation: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta



Progress of the 1st year
&
PO/Annual Work Plan of the 2nd year

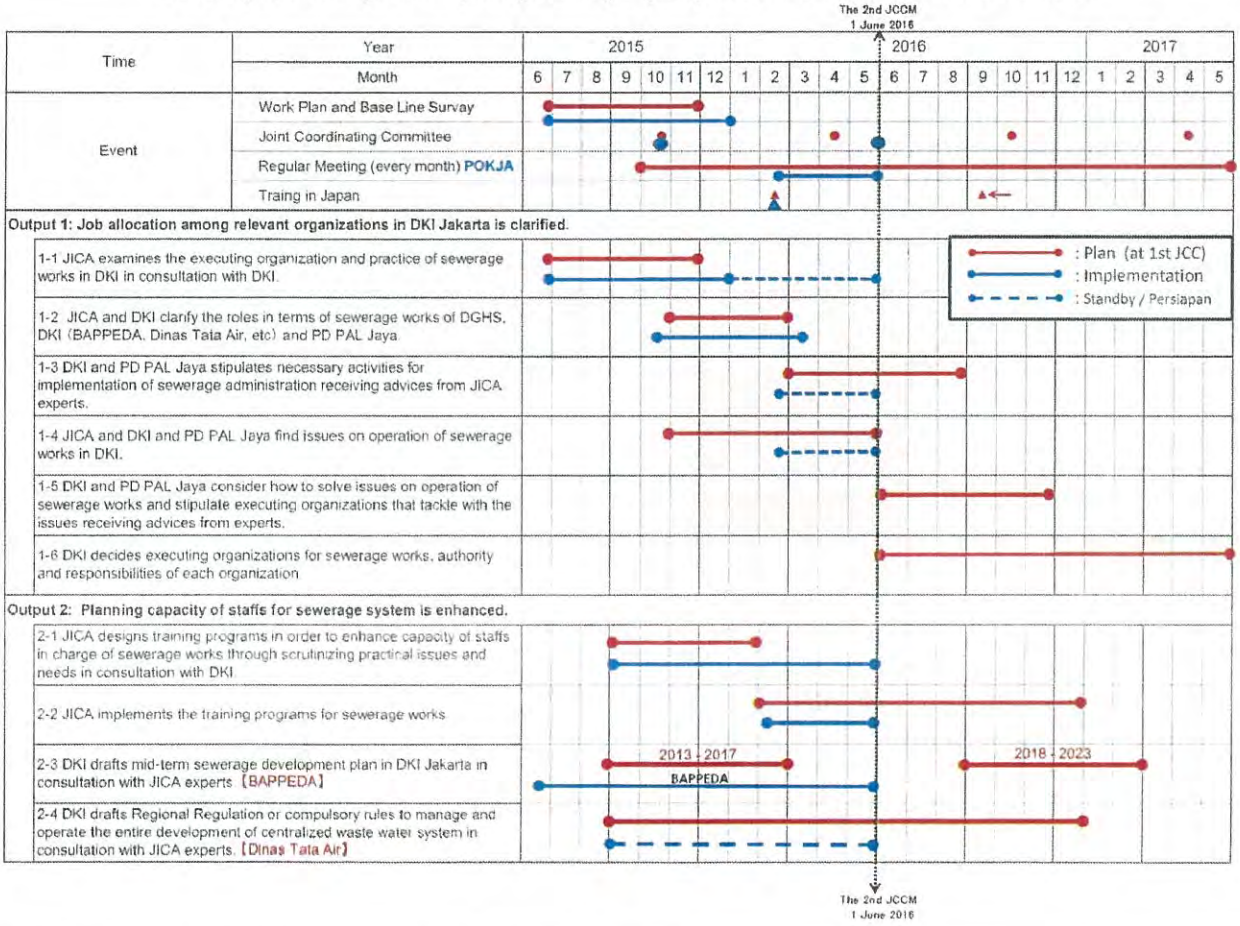
The 2nd JCC Meeting

1 June 2016

1

Date: 1 June 2016

Plan of Operation: Project for Improving Planning Capacity for the Sewerage System in DKI Jakarta



Output 1. **Penjelasan kegiatan masing-masing badan/organizasi terkait.** / *Job allocation among relevant organizations in DKI Jakarta is clarified. (Activities 1-1. ~ 1-6.)*

Output 2. **Meningkatkan kapasitas staf untuk perencanaan system air limbah.** / *Planning capacity of staffs for sewerage system is enhanced. (Activities 2-1. ~ 2-4.)*

The project design is consisted of 10 activities for 2 outputs and is implemented based on the programs approach by integrating and synchronizing the following 4 targets/fruits.

- **Fungsi organisasi / *Organizational function:***
  To clarify the Job allocation among relevant organizations (BAPEDA, Dinas Tata Air, PD PAL Jaya and other agencies who are related with sewerage/Air limbah) as well as community for the sewerage system in DKI Jakarta in the future. (Activities 1-1,1-2,1-3,1-4,1-5, 1-6)
- **Pelatihan / *Trainings:***
  To transfer needed and effective skills/techniques for sewerage system implementation in DKI Jakarta by suitable training program for capacity development. (Activity 2-1, 2-2)
- **Draft Rencancana 5 Tahun / *Draft of Mid-term Sewerage Development Plan:***
  To create the draft of official document (Mid-term Developing Plan of DKI Jakarta 2018-2022) in order to ensure the sewerage development and to sustain sewage programs of DKI Jakarta in the future. (Activity 2-3)
- **Draft Peraturan Daerah / *Draft of Regional Regulation (provincial level):***
  To create the draft of regional regulation or compulsory rules of DKI Jakarta in order to manage and operate the entire development of centralized wastewater system (sewerage system). (Activity 2-4)

3

1. Organizational function: <1-1 ~ 1-6>

1-1 Pertimbangan pelaksanaan kerja dan organisasi terhadap sistem air limbah saat ini melalui konsultasi dengan DKI Jakarta.

JICA scrutinizes the executing organization and practice of sewage works in DKI in consultation with DKI.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-1 Perencanaan dini																								
Kegiatan-Survey organisasi untuk klarifikasi kondisi saat ini *Activity-Survey of organizations for clarification of condition now*		Kokeksi Dokumen *Documents' Collection*																						

1 Juni 2016

1. Peraturan Menteri

- **Peraturan Menteri Negara Lingkungan Hidup No.08 Th.2009 (Baku Mutu Air Limbah Bagi Usaha dan/atau Kegiatan Pembangkit Listrik Tenaga Termal)**

4

2. Peraturan Gubernur

- Peraturan Gubernur Propinsi DKI Jakarta No.220 Th.2014
  Organisasi Dan Tata Kerja Badan Perencanaan Pembangunan Daerah
- Peraturan Gubernur Propinsi DKI Jakarta No.226 Th.2014
  Organisasi Dan Tata Kerja Dinas Kebersihan
- Peraturan Gubernur Propinsi DKI Jakarta No.230 Th.2014
  Organisasi Dan Tata Kerja Badan Pengelola Lingkungan Hidup Daerah
- Peraturan Gubernur Propinsi DKI Jakarta No.257 Th.2014
  Organisasi Dan Tata Kerja Dinas Tata Air

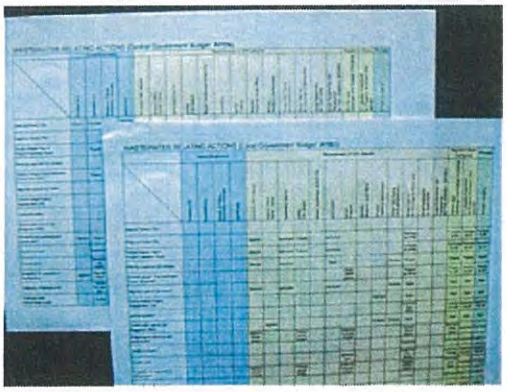
3. Profil / Profile

(1) Profil PD. PAL Jaya / *PD PAL Jaya Profile* & Profil Jakarta Propertindo / *Jakarta Propertindo Profile*

+ List of Regional Regulation, Deed-PD PAL Jaya
+ Peraturan Daerah: No.14 Th.1997, No.122 Th.2015,
+ Instruksi Gubernur: No.59 Th.2014
+ Keputusan Gubernur: No.159 Th.2014, No.273 Th.2014
+ Keputusan Gubernur: No.944 & No.955 TH.2014, No.1390 Th.2014, No.1673 Th.2014, No.2089 Th.2014, No.41 Th.2015, No96 Th.2015

(2) Profil Jakarta Propertindo / Jakarta Propertindo

+ List of Regional Regulation, Deed-Jakarta Province
+ Peraturan Daerah: No.6 Th.2013, No.13 Th.2014,
+ Keputusan Gubernur: No.136 Th.2014, No.2084 Th.2014, no.2089 TH.2014, No.103～No.106 TH.2015, No.564 Th.2015, No.565 Th.2015



1-2 Penjelasan peran/kegiatan DGHS, DKI, BAPPEDA, DINAS PU dan PD PAL Jaya pada Air Limbah.

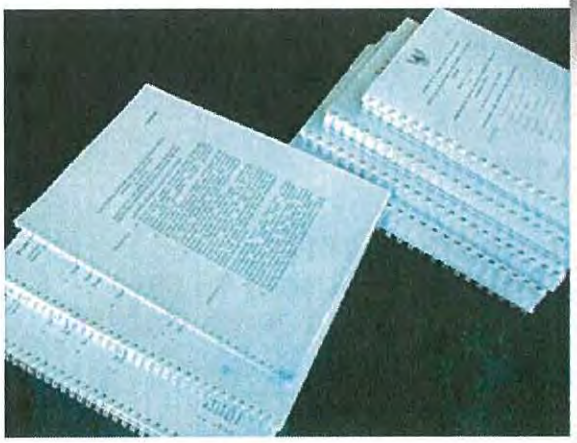
JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (BAPPEDA, Dinas PU, etc) and PD PAL Jaya.

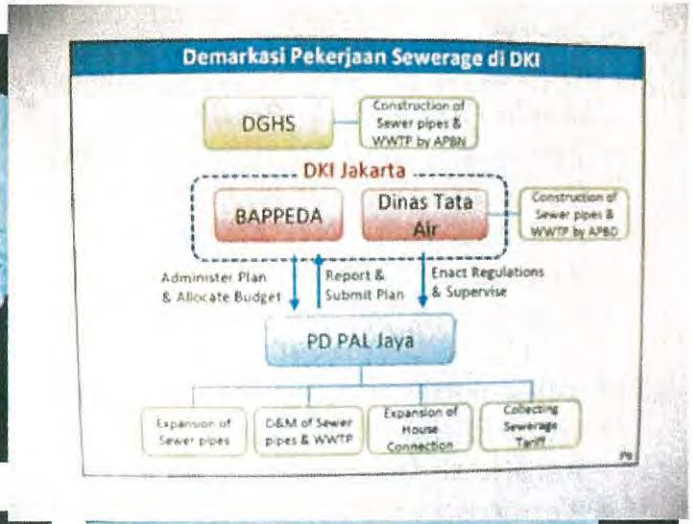
Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-2 Perencanaan dini																								
1) Workshop tentang peran dalam hal pekerjaan air limbah di Jakarta. (Menggunakan hasil Kegiatan-survei dan rekomendasinya) *Workshop on roles in terms of sewerage work at Jakarta.(Using the result of Activity-survey and its recommendation)*																								
2) Pertemuan untuk persiapan rekomendasi tentang peran dalam hal pekerjaan air limbah dari organisasi-organisasi terkait dengan sistem air limbah di Jakarta. *Meeting to prepare recommendation about roles in terms of sewerage work of organizations concerned with system sewerage in Jakarta.*																								

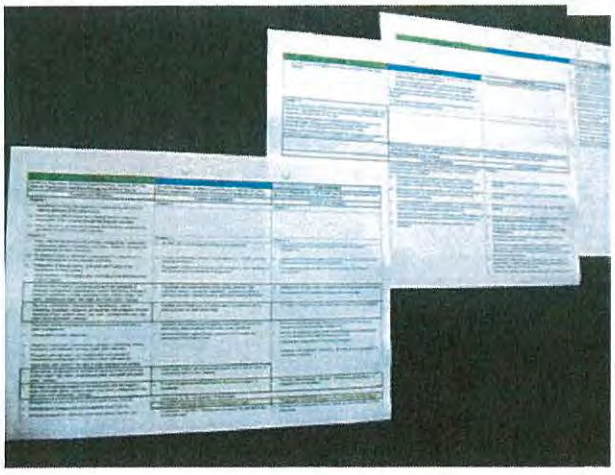
JCCM / Pertemuan POKJA / Seminar
JCCM / WG Meetings / Seminar

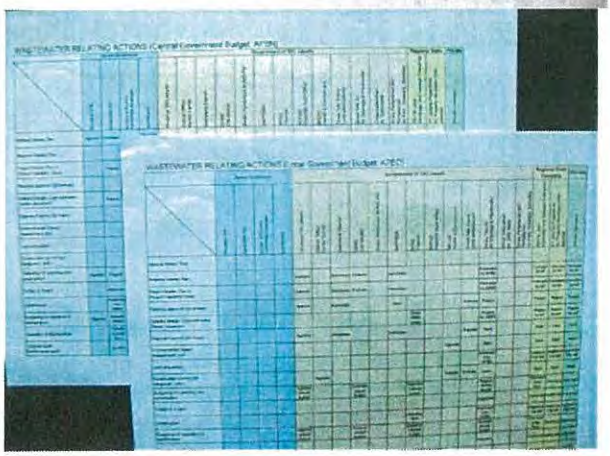
Grafik Organisasi-2
Draft Organizations Function Chart

7









1-3 DKI dan PD PAL JAYA menetapkan kegiatan-kegiatan yang diperlukan untuk pelaksanaan sistem air limbah dengan menerima saran dari JICA Expert

DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-3 Perencanaan dini																								
1) Pemantauan kegiatan *Monitoring of Activities*										Wawancara *Interview*														
2) Pertemuan untuk konfirmasi kegiatan *Meeting for confirmation of Activities*										POKJA *WG*					POKJA / Pertemuan *WG Meetings / Meeting*									
															Masih perlu revisi dan menambah dokumen lampiran									

1 Juni 2016

Demarkasi Air Limbah di Indonesia

Draft

Pemerintah pusat

Konstruksi (Main sungai/pipe)
Persetujuan dari Rencana
Subsidi seperti hibah
dan lain-lain

Pemerintah daerah

Provinsi (Sungai/*Watershed*)

Kota (Air Limbah) | **Kota** | **Kota**

Pembuatan kebijakan, Pemantauan & Pegawasan

BUMD

Konstruksi (Service pipe)
Ekstensi pipa Sewer
O&M pipa Sewer & WWTP
Ekspansi House Connection
Pengumpulan Tariff Sewerage

Rumah (Tanah pribadi) House Connection

10

1-4 JICA dan DKI dan PD PAL JAYA menemukan masalah pada kegiatan pekerjaan air limbah di DKI

JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-4 Perencanaan dini																								
1) ***Pemantauan kegiatan*** *Monitoring of Activities*										**Wawancara** *Intervew*														
2) **Pertemuan untuk menemukan masalah dalam pengoperasian kegiatan kerja air limbah** *Meeting for finding issues in the operation of Activities of sewerage work*										POKJA *WG*														

1-5 DKI dan PD PAL Jaya mempertimbangkan bagaimana untuk memecahkan masalah pada operasi kegiatan air limbah dan menetapkan pelaksana organisasi yang menangani masalah tersebut serta menerima saran dari para ahli.

DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-5 Perencanaan dini																								
1) Pemantauan Kegiatan *Monitoring of Activities*																								
2) Pertemuan untuk memechakan masalah dalam pengoperasian kegiatan sistem air limbah ***Meeting to solve problems in the operation of sewerage system***													Diskusi tentang aktivitas lapangan 1-5 dengan BAPPEDA *Discussion about field activity 1-5 with BAPPEDA¥*											

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1-6 DKI menetapan organisasi-organisasi pelaksana untuk pekerjaan air limbah, wewenang dan tanggung jawab dari masing-masing organisasi.

DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-6 Perencanaan dini																								
1) Pemantauan Kegiatan *Monitoring of Activities*																								
2) Pertemuan untuk menetapan organisasi-organisasi sesuai dengan pelaksanaan sistem air limbah di Jakarta. ***Meeting to establish organizations in accordance with the implementation of the waste water system in Jakarta.***													1. Diskusi tentang level target aktivitas 1-6 dengan BAPPEDA 2. Pelaksanaan untuk level target *1. Discussion about target level of actibity 1-6 with BAPPEDA 2. Imepmentation for the target level*												

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1. Organizational function: <1-1 ~ 1-6>

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1-1 JICA scrutinizes the executing organization and practice of sewage works in DKI in consultation with DKI					**Selsai** *Finished*																			
1-2 JICA and DKI clarify the roles in terms of sewerage works of DGHS, DKI (BAPPEDA, Dinas PU, etc) and PD PAL Jaya								**Selesai** *Finished*																
1-3 DKI and PD PAL Jaya stipulates necessary activities for implementation of sewerage administration receiving advices from JICA experts													POKJA / Pertemuan *WG Meetings / Meeting* Masih perlu revisi dan menambah dokumen lampiran											
1-4 JICA and DKI and PD PAL Jaya find issues on operation of sewerage works in DKI.																								
1-5 DKI and PD PAL Jaya consider how to solve issues on operation of sewerage works and stipulate executing organizations that tackle with the issues receiving advices from experts.													Diskusi tentang aktivitas lapangan 1-5 dengan BAPPEDA *Discussion about field activity 1-5 with BAPPEDA¥*											
1-6 DKI decides executing organizations for sewerage works, authority and responsibilities of each organization.													1. Diskusi tentang level target aktivitas 1-6 dengan BAPPEDA 2. Pelaksanaan untuk level target *1. Discussion about target level of actiblty 1-6 with BAPPEDA 2. Imepmentation for the target level*											

2. Trainings: <2-1, 2-2>

2-1 JICA merencanakan program pelatihan dalam rangka meningkatkan kapasitas staf yang menangani sewerage melalui pengamatan masalah dan kebutuhan praktis dalam konsultasi dengan DKI.

JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
2-1 Perencanaan dini																								
1) JICA merencanakan program pelatihan dalam rangka meningkatkan kapasitas staf yang menangani sewerage melalui pengamatan masalah dan kebutuhan praktis dalam konsultasi dengan DKI. *JICA designs training programs in order to enhance capacity of staffs in charge of sewerage works through scrutinizing practical issues and needs in consultation with DKI.*				**Sedia PeLatihan di Jp dan Seminar** ***Preparation Training in Jp & Seminar***																				

Training
1. Training in *DKI Jakarta*
2. Training in *Japan*

Training in DKI Jakarta

Outline of the Training

Items	Descriptions
Goal	Planning capacity of staffs for sewerage system is enhanced through the training
Targets	Staffs of sewerage system in DKI Jakarta (BAPPEDA and Dinas Tata Air), PD PAL Jaya and DGHS
Subjects	1. Sewerage Overview 2. Related Organization for Sewerage Works Implementation 3. Case Study: Local Sewerage Service Agencies 4. Methodology for Sewerage System Development (Case Study) 5. Finance of Sewerage System Operation (Case Studies from Japan and Other Countries) 6. Strategies for Improvement of O&M Planning Capacity and Promotion of Privatization 7. Management of Sewerage System 8. Public relations
Speakers	JICA Consultant Team Members
Concepts	*Refer to Conceptual Diagram of Training in DKI Jakarta*

Training in DKI Jakarta

Schedule of the Training (Draft)

	Year	2015	2016												2017					
	Month	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Small Seminar						★		★	★			★	★			★		★	★	
JCC							▲						▲						▲	
Training in Japan				◆						◆										

Training in DKI Jakarta Activities and Subjects	Responsible Person	2015	2016												2017					
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Planning the contents and shedule of the Training	All Members																			
Subject 1: Sewerage Overview	Kanai								①											
Subject 2: Related Organization for Sewerage Works Implementation	Kawai								①			②	③							
Subject 3: Case study: Local sewerage service agencies	to be assigned																			
Subject 4: Methodology for Sewerage System Development (Case Study)	Inoue					①						②				③				
Subject 5: Finance of Sewerage System Operation (Case Studies from Japan and Other Countries)	Inoue					①				②			③							
Subject 6: Strategies for Improvement of O&M Planning Capacity and Promotion of Privatization	Kim					①						②	③							
Subject 7: Management of Sewerage System	Hashimoto							①					②						③	
Subject 8: Public relations	to be assigned																			

Training in Japan

1st Training was implemented from 14th to 27th Feb, 2016 in Tokyo, Osaka and Kitakyushu.

2nd Training is planned as is show to the right list:

No.	Date	Program	Stay
1	Aug 21 (Sun)	Travel Arrive at Tokyo, Japan	Tokyo
2	Aug 22 (Mon)	Orientation, Courtesy Call MLIT and JICA	Tokyo
3	Aug 23 (Tue)	Lecture "Administration and Legal system " and "Sewerage master plan"	Tokyo
4	Aug 24 (Wed)	Lecture "Finances and PPP", Site Visit "WWTP"	Tokyo
5	Aug 25 (Thu)	Lecture "Training system and Operation & Maintenance" and "Available utilization of sewage sludge"	Tokyo
e	Aug 26 (Fri)	Site Visit "Night-soil treatment plant and Septic tank factory", Discussion among members of GCUS	Tokyo
7	Aug 27 (Sat)	Reporting	Tokyo
8	Aug 28 (Sun)	Travel from Tokyo to Osaka through Kyoto	Osaka
9	Aug 29 (Mon)	Lecture "Sewerage in urban rainwater drainage"	Osaka
10	Aug 30 (Tue)	Travel from Osaka to Kitakyushu Lecture "Summary of Sewerage Works in Kitakyushu"	Kitakyushu
11	Aug 31 (Wed)	Site Visit "Water Plaza (Reclaimed water generating plant)" and "Visitor Center(Sewerage public relations facility)"	Kitakyushu
12	Sep 1 (Thu)	Lecture "Construction supervision and inspection" Site Visit "Sewer pipeline construction site" and "Water Environmental Museum"	Kitakyushu
13	Sep 2 (Fri)	Site Visit "a diversion manhole of conventional combined sewerage" and "TOTO museum", Wrap up Session	Kitakyushu
14	Sep 3 (Sat)	Travel Arrive at Jakarta	

2-2 JICA melaksanakan program pelatihan untuk pekerjaan saluran air limbah.

JICA implements the training programs for sewerage works.

Tahun *(Year)*	2015							2016											2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
2-2 Perencanaan dini																								
2-2 **JICA melaksanakan program pelatihan untuk pekerjaan saluran air limbah.** *JICA implements the training programs for sewerage works.*				**PeLatihan di Jp** *Training in Jp*																				
											Seminar Kecil *Small Seminar*													

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1st Training in Japan

Ochiai Water Reclamation Center

Pipe O&M Trainig (TV camera survey)

Tunami/Storm Surge Disaster Prevention Station

Sewer pipeline construction site

Sewer pipeline construction site

A diversion manhole of conventional combined sewerage

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3. Draft of Mid-term Sewerage Development Plan: <2-1, 2-2>

2-3 DKI draft rencana pembangunan saluran air limbah jangka menengah di DKI Jakarta dan konsultasi dengan para ahli JICA.

DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.

Tahun *(Year)*	2015							2016												2017				
Bulan *(Month)*	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
2-3 Perencanaan dini																								
2-3 **DKI draft rencana pembangunan saluran air limbah jangka menengah di DKI Jakarta dan konsultasi dengan para ahli JICA.** *DKI drafts mid-term sewerage development plan in DKI Jakarta in consultation with JICA experts.*					BAPPEDA (2013-2017)												(2018-2022)							

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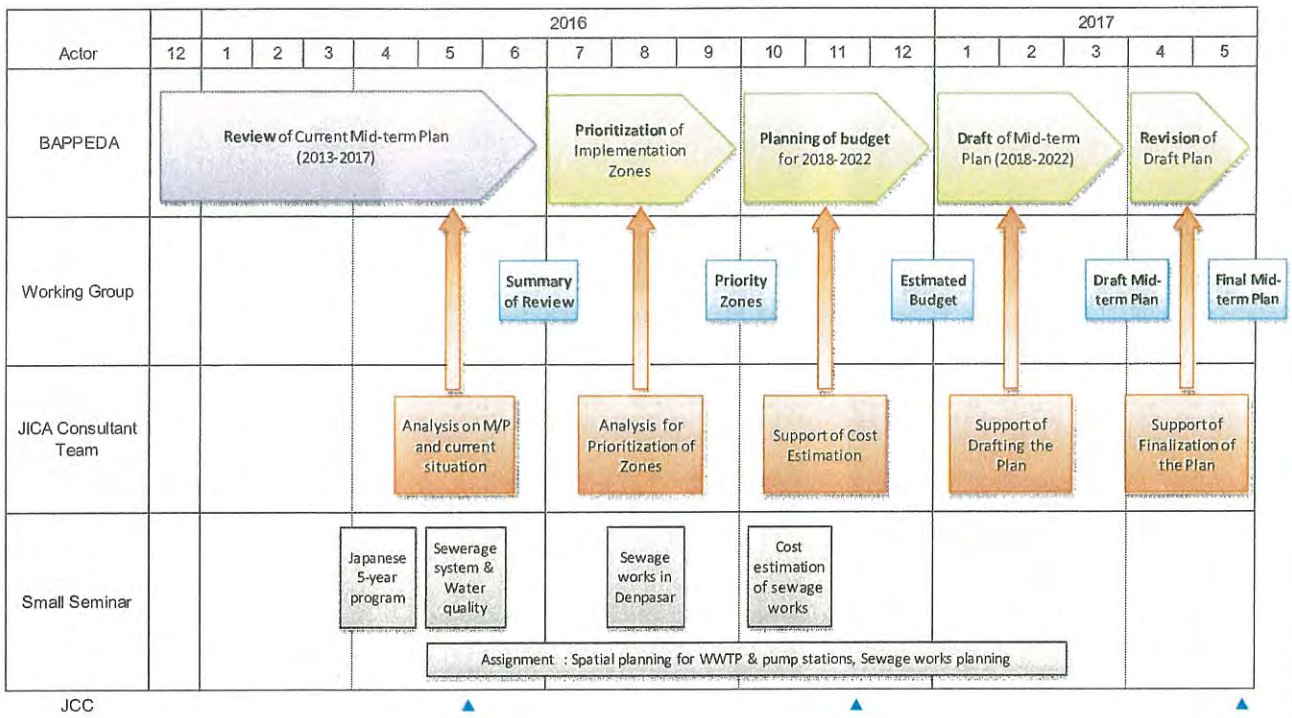
Schedule of Draft of Mid-term Sewerage Development Plan



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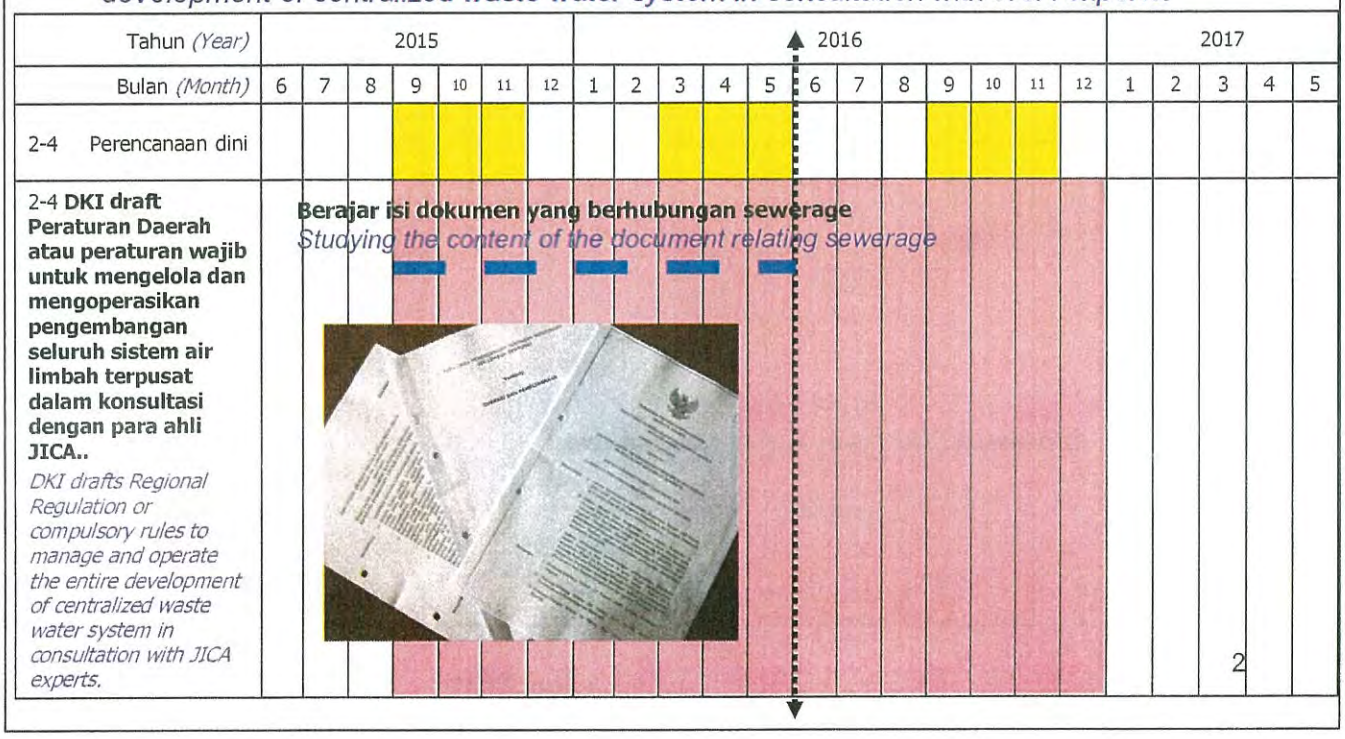
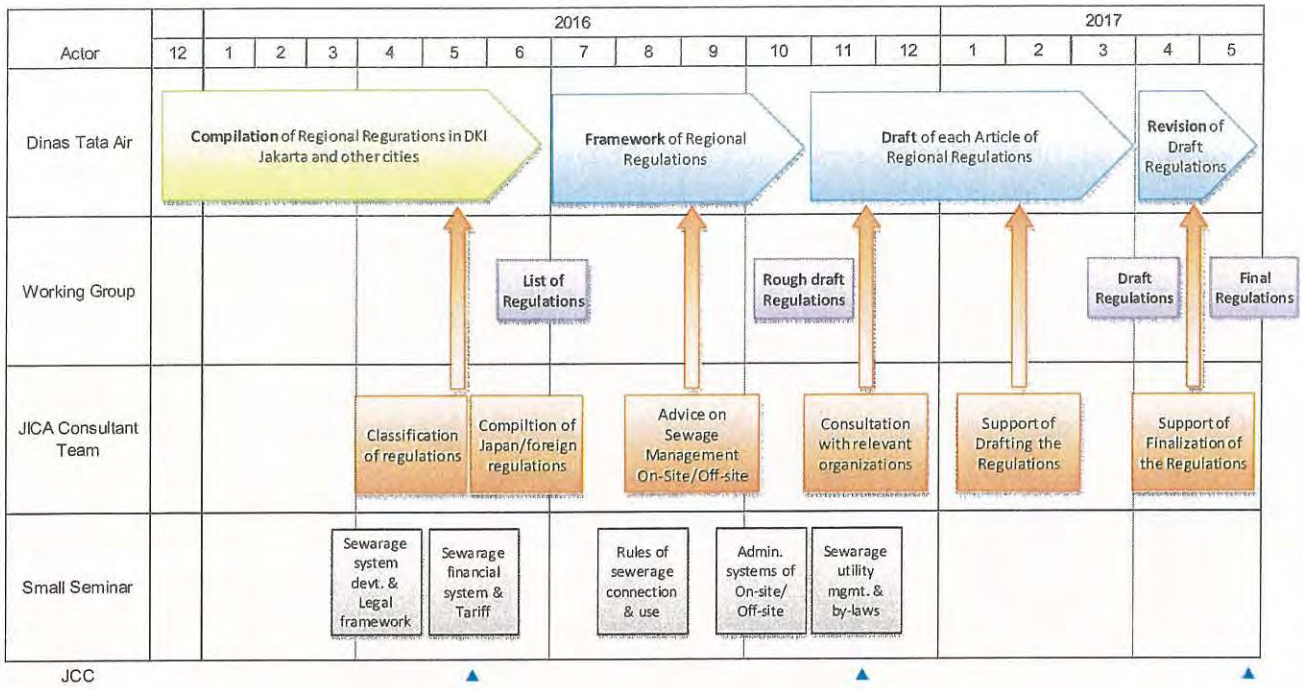
4. Draft of Regulation (provincial level): <2-4>

2-4 DKI draft Peraturan Daerah atau peraturan wajib untuk mengelola dan mengoperasikan pengembangan seluruh sistem air limbah terpusat dalam konsultasi dengan para ahli JICA..

DKI drafts Regional Regulation or compulsory rules to manage and operate the entire development of centralized waste water system in consultation with JICA experts.



Schedule of Draft of Legal Framework related to Sewerage Systems



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Survey Lapangan

Terima Kasih atas Kerjasama

Menghadiri Pertemuan