



REPUBLIC OF INDONESIA  
MINISTRY OF NATIONAL DEVELOPMENT PLANNING/  
NATIONAL DEVELOPMENT PLANNING AGENCY

# PUBLIC PRIVATE PARTNERSHIP

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INFRASTRUCTURE PROJECTS  
PLAN IN INDONESIA 2020



## **Foreword**

BY MINISTER OF NATIONAL DEVELOPMENT PLANNING/ HEAD OF NATIONAL DEVELOPMENT PLANNING AGENCY (BAPPENAS)

### **INFRASTRUCTURE DEVELOPMENT 2020-2024 PPP FOR BETTER INFRASTRUCTURE**

Indonesia as a developing country has already been aware that infrastructure development is one strategic way to accelerate economic growth and build equality between eastern and western area in Indonesia. Global Competitiveness Report 2019 says that, the index of Indonesia infrastructure quality has drop one-rank from rank 71<sup>st</sup> in 2018 become rank 72<sup>nd</sup> in 2019 and still behind other ASEAN countries, such as Singapore, Malaysia and Thailand.

Under the current Medium-Term National Development Plan 2020-2024, the key government target is to reach the average GDP growth to 6% and allocating IDR 6.445 Trillion or about 6,2% of GDP for infrastructure spending. In contrary, the funding capacity of government is only able to fund IDR 2.385 Trillion or about 37% of total required investment. This funding gap forces the government in maximizing creative financing and encouraging the participation of society and business entities investment through Public Private Partnership (PPP) scheme.

As the PPP scheme become one of the solutions to government budget constraint, the government needs to facilitate and strengthen the Government Contracting Agency's capacity (GCA) as well as providing reliable information for business entity. To provide the latest preview and information about the infrastructure PPP projects plan, the government issues PPP Book annually. In compliance with Minister of National Development Planning Regulation Number 4/2015 as amended by Minister of National Development Planning Regulation Number 2/2020, Bappenas have rigorously review and screens all PPP Project before it is published on PPP Book.

In PPP Book, the projects are organized into two categories based on their readiness level, ready to offer projects and under preparation projects. Moreover, PPP Book also provides information on projects that have already moved to tender process (already tendered) and projects that have become a success story for PPP development in Indonesia. This year, the total project covered in PPP Book are 51 projects as enacted by Minister of National Development Planning Decree Number 22/2020 and Number 61/2020, with 37 categorized as under preparation projects, and 14 as ready to offer the projects.

The government hopes that this PPP Book would escalate the participation of private partner in the implementation of infrastructure projects.

**Suharso Monoarfa**

Minister of National Development Planning/  
Head of National Development Planning Agency

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## 1. INDONESIA COUNTRY PROFILE

Indonesia, with the land area of 1,916,862 square kilometres, is the 14<sup>th</sup> largest country in the world. The ranks increased to the 7th largest country in terms of land and sea area combined, where it consists of 34 provinces. Indonesia's population — which at 266.7 million makes it the world's fourth-most-populous country, is the most populous in Southeast Asia. According to the World Bank, Indonesia's GDP per capita has steadily risen, from \$823 in the year 2000 to \$3,932 in 2018. Indonesia is also a member of the G-20, where it is a representative of developing countries that give economic impact towards the world.

In order to achieve the medium scenario of GDP growth target and infrastructure stock target in RPJMN 2020-2024, infrastructure development needs are 6,445 Trillion IDR or an average of 6.2 percent of GDP. However, the government's ability to fund the infrastructure development only 2,385 trillion IDR or only 37 percent of total needs (RPJMN 2020-2024). It required an innovative effort to encourage the participation of the community and business entities to finance the remaining 63% of infrastructure development needs.

The infrastructure gap must be seen as an opportunity to grow. As infrastructure development accelerates, the multiplier effect will start to take effect on people's daily life. Better infrastructure means that the country will be able to absorb larger flow of goods and tourists that travel across the country, hastening the economic growth of the nation. As the nation grows, social equality will spread throughout Indonesia as different parts of the nation's vast territory will gain access to more electricity and telecommunication network, better road and transportation system, and improved social infrastructures such as healthcare and education facilities.

Over the years, the investment climate for the private sector is getting better, as Indonesia have steadily increased its Ease of Doing Business (EoDB) Ranks by World Bank. Indonesian EoDB rank arises from 106 in 2016 to 73 in 2019. At the moment, Indonesia is the Top 3 Asian Best Investment Destination according to The Economist and also the Top 3 Japan Investment Destination (JBIC rating). Moreover, Indonesia's Sovereign Credit Rating is rated by Moody's (Baa2/Stable Outlook), Fitch (BBB/Stable Outlook), and S&P (BBB/Stable Outlook) in 2020.

The Government of Indonesia is acknowledging the importance of improving the nation's infrastructure while also fully aware of the profitability of such infrastructure investment from the perspective of business and private sector. To bridge the interest of the private sector on finding profitable investment and providing better infrastructure for the people, the Government is offering the Public-Private Partnership (PPP) scheme in developing infrastructure projects. This scheme is provided through the Presidential Regulation Number 38/2015 alongside other regulations. Now, as the condition for PPP project in Indonesia has matured and a steady stream of new projects come throughout the years, new opportunities for a profitable investment arise alongside the projects.

## **2. REGULATORY FRAMEWORKS FOR PUBLIC-PRIVATE PARTNERSHIPS IN THE PROVISION OF INFRASTRUCTURE**

The Government has taken a series of major steps to refine the PPP policies and regulatory framework to improve the attractiveness and competitiveness of the Government's PPP program. The regulations consist of:

- 1) Regulatory Framework for PPP Scheme Guidelines
  - a) Presidential Regulation Number 38/2015, issued by the government as replacement of Presidential Regulation Number 67/2005 and its revision, establishing the cross-sector regulation framework for implementing PPPs in the provision of infrastructure. The successive amendments have established clearer and more detailed stipulations about the unsolicited proposal, cooperation agreement, return on investment with the payment by the user in the form of tariffs (user charge) or availability payment, government support and guarantee to project among other points.
  - b) Minister of National Development Planning Regulation Number 4/2015 regarding operational guideline for PPP on infrastructure provision as amended by Minister of National Development Planning Regulation Number 2/2020.
  - c) Head of National Public Procurement Agency (LKPP) Regulation Number 19/2015 regarding guideline for procurement of business entity on PPP scheme in infrastructure provision.
  - d) National Public Procurement Agency (LKPP) Regulation Number 29/2018 regarding guideline for procurement of business entity on solicited PPP infrastructure project.
- 2) Regulatory Framework for Availability Payment Scheme on PPP Projects
  - a) Minister of Finance Regulation Number 260/2016 as an amendment of Minister of Finance Regulation Number 190/2015 regarding Availability Payment on PPP scheme in Infrastructure Provision.
  - b) Minister of Home Affair Regulation Number 96/2016 regarding Availability Payment using the local budget (APBD) on PPP scheme in Infrastructure Provision.
- 3) Regulatory Framework for Government Guarantee on PPP Projects
  - a) Presidential Regulation Number 78/2010 regarding government guarantee on PPP infrastructure project.
  - b) Minister of Finance Regulation Number 8/2016 as an amendment of Minister of Finance Regulation Number 260/2010 regarding guideline on a government guarantee.

- c) Minister of Finance Regulation Number 30/2012 regarding contingency liability fund.
- 4) Regulatory Framework for Government Support on PPP Projects
- a) Minister of Finance Regulation Number 170/2018 as an amendment of Minister of Finance Regulation Number 223/2012 regarding VGF
- 5) Other related regulation
- a) Government Regulation Number 27/2014 regarding management of national/regional asset
  - b) Government Regulation Number 28/2018 regarding regional cooperation

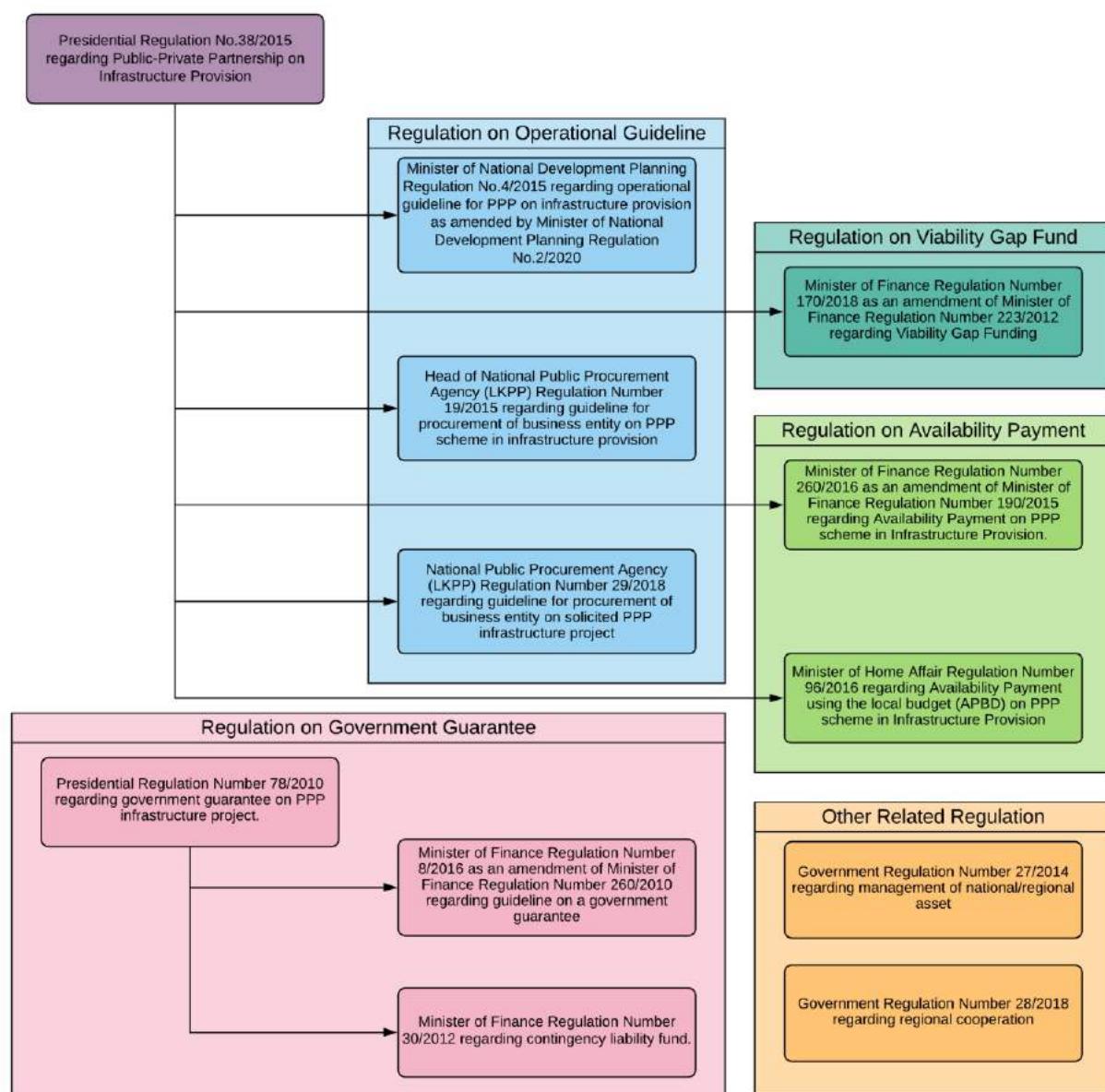


Figure 1: The Evolving Cross-sector PPP Regulatory Frameworks in Indonesia

### **3. PPP STAGE EXPLANATION**

There are four stages for the PPP scheme: Planning, Preparation, Transaction and Implementation.

#### **3.1 Planning**

Planning phase consists of such activities as follows:

**1) PPP budget planning**

Minister/Head of Institution/Head of Regional Government set up a budget for PPP that include all stages from planning, preparation, transaction and implementation. This step is crucial to ensure the continuity of the project.

**2) PPP identification and determination**

Project identification, as the name implies, refers to the activities of finding a suitable infrastructure project to be provided using a PPP scheme. There are 19+1 sectors that are eligible to be provided using the PPP scheme. PPP projects can be identified in three ways as follows:

- a) Proposed by Minister/Head of Institution/Head of Regional Government/Director of State-Owned Enterprise (SOE)/Director of Regional-Owned Enterprise (ROE), colloquially named Government Contracting Agency (GCA).
- b) Proposed by Ministry of National Development Planning/ National Development Planning Agency based on National Development Priority Program.
- c) Proposed to suitable GCA by business entity itself, known as unsolicited projects.

In solicited PPP projects, determining whether the project is suitable for PPP or not must be done using a preliminary study. A preliminary study is an initial study conducted by the GCA to provide descriptions of the requirements necessary for the infrastructure provision and its benefits if it is delivered under cooperation with the business entity through the PPP mechanism. Furthermore, the Preliminary Study should consist of:

- a) Need analysis
- b) Compliance criteria
- c) Value for money analysis
- d) Analysis of potential revenue and project funding scheme
- e) Recommendation and follow-up plan

**3) PPP planning phase budget disbursement**

The GCA must set up and eventually disburse the budget for planning phase, at least for preparation of Preliminary Study and conducting Public Consultation.

**4) Public consultation**

Public consultation on preparation stage will discuss the planned projects with related stakeholders. The goal of the public consultation is to gather inputs and responses from stakeholder regarding the projects.

**5) PPP screening**

After completing the preliminary study including the public consultation, the GCA then will decide whether the planned project is suitable to be continued using PPP or other scheme. Then, the GCA must propose the project by sending a letter attached with all the documentation to the Minister of National Development Planning to be evaluated.

**6) Compiling the PPP Book**

Ministry of National Development Planning after receiving the project from many GCAs will then evaluate and compile the projects into one document called PPP Book. This document is issued annually.

**7) PPP Categorization**

While evaluating the projects, the Ministry of National Development Planning must categorize the projects into 2 (two) categories: under preparation projects and ready to offer projects, according to its readiness and completion level.

## **3.2 Preparation**

The PPP preparation stage comprises of Pre-Feasibility Study, which consists of:

**1) Pre-Feasibility Study**

Pre-Feasibility Study in the case of solicited PPP Projects can be divided into 2 (two) documents. Outline Business Case (OBC) and Final Business Case (FBC) where the FBC is the improvement of the OBC with more detailed data and analysis. Although on special cases, both can be combined into one document, such as if the project is considered priority project and/or national strategic project or if there are similar projects with proven high demand on the market. The OBC/FBC document must include at least:

- a) Legal and institutional study;
- b) Technical study;
- c) Economic and commercial study;

- d) Environmental and social study;
- e) Study of cooperation form and structure in infrastructure provision;
- f) Risk management study;
- g) Study of Government Support and/or Government Guarantee needs; and
- h) Study of outstanding issues.

## 2) Public Consultation

The purpose of Public Consultation is to review the compliance of the social and environmental standards by the provisions stipulated in laws and regulations of the environmental sector, obtain inputs regarding public needs related to the PPP project and ensure the readiness of the project.

## 3) Market Sounding

Market Sounding is intended to obtain inputs and response from the PPP markets (business entities/ agencies/ institutions/ national or international organizations).

### 3.3 Transaction

#### 1) Market Consultation

Market consultation can be done to ensure the willingness of the prospective bidders and to gather inputs, considerations, and responses regarding the PPP Project. This activity can be done by one-on-one meeting with interested parties or formal project promotional event.

#### 2) Project Location Determination

GCA must determine and set the location of the project as in most PPP projects, land acquisition is one of the responsibilities of the GCA. The GCA must consult with the preparation document and any related institution to ensure that the land acquisition and the ensuing relocation (if any) is compliant with the regulation. GCA must also ensure that the project have obtained any applicable environmental permits and licenses.

#### 3) SPC Tender Process

Tender process consists of pre-qualification of prospective participant, request for proposal, and evaluation. After evaluating the bidding proposals, the GCA will then determine the winning bidder. Before the bidder is awarded, usually the bidders are given a chance to object the result. Eventually, the GCA will release a letter of award if there is no objection from other bidders or the objection is considered invalid.

#### 4) Agreement Signing

After the letter of award is issued, the winner must establish a Special Purpose Company (SPC) as a legal entity to sign the agreement regarding the PPP project. In general, the SPC must sign the PPP agreement with the GCA. If there is some form of government guarantee, SPC must also sign guarantee agreement with Indonesian Infrastructure Guarantee Fund (IIGF) while the GCA sign a recourse agreement with the IIGF.

#### 5) Financial Close

After signing the agreement, the SPC should be able to secure the financing of the project. This must be obtained no longer than 12 months after signing the PPP Agreement and could be extended from time to time if the failure to obtain financing is not contributable to the failure of the PPP project. Every extension given for financial close should be no longer than six months. Financial close could also be done periodically according to project cycle and the agreement between SPC and GCA.

### 3.4 Implementation

Implementation stage consists of 2 (two) activities, that is:

#### 1) Preparation of PPP implementation monitoring

To prepare for the implementation, GCA must establish the monitoring team, prepare and issue guidelines on PPP implementation monitoring, handover all project documentation to the monitoring team, and oversee the progress of financial close from the SPC.

#### 2) PPP implementation monitoring

The monitoring will commence from construction phase, operational phase until the handover of asset after the cooperation period is finished

## 4. PPP JOINT OFFICE

Due to the nature of PPP which requires cross-sector and cross-agency coordination to ensure the success of the PPP project, a coordination system between government agencies are needed. Responding to those needs, in December 2016, PPP Joint Office was established.

This PPP Joint Office was established to assist the GCA and investors, and also to answer any queries about the PPP Scheme in Indonesia. The PPP stakeholders from the central government and institution agreed to establish the PPP Joint Office in Jakarta. PPP Joint Office now acts as a 'one-stop service' for PPP scheme in Indonesia. Hence, the use

of a PPP scheme could be accelerated in an accountable method. It has no structural system between the agencies but works as a coordination system.

The functions of the PPP Joint Office are:

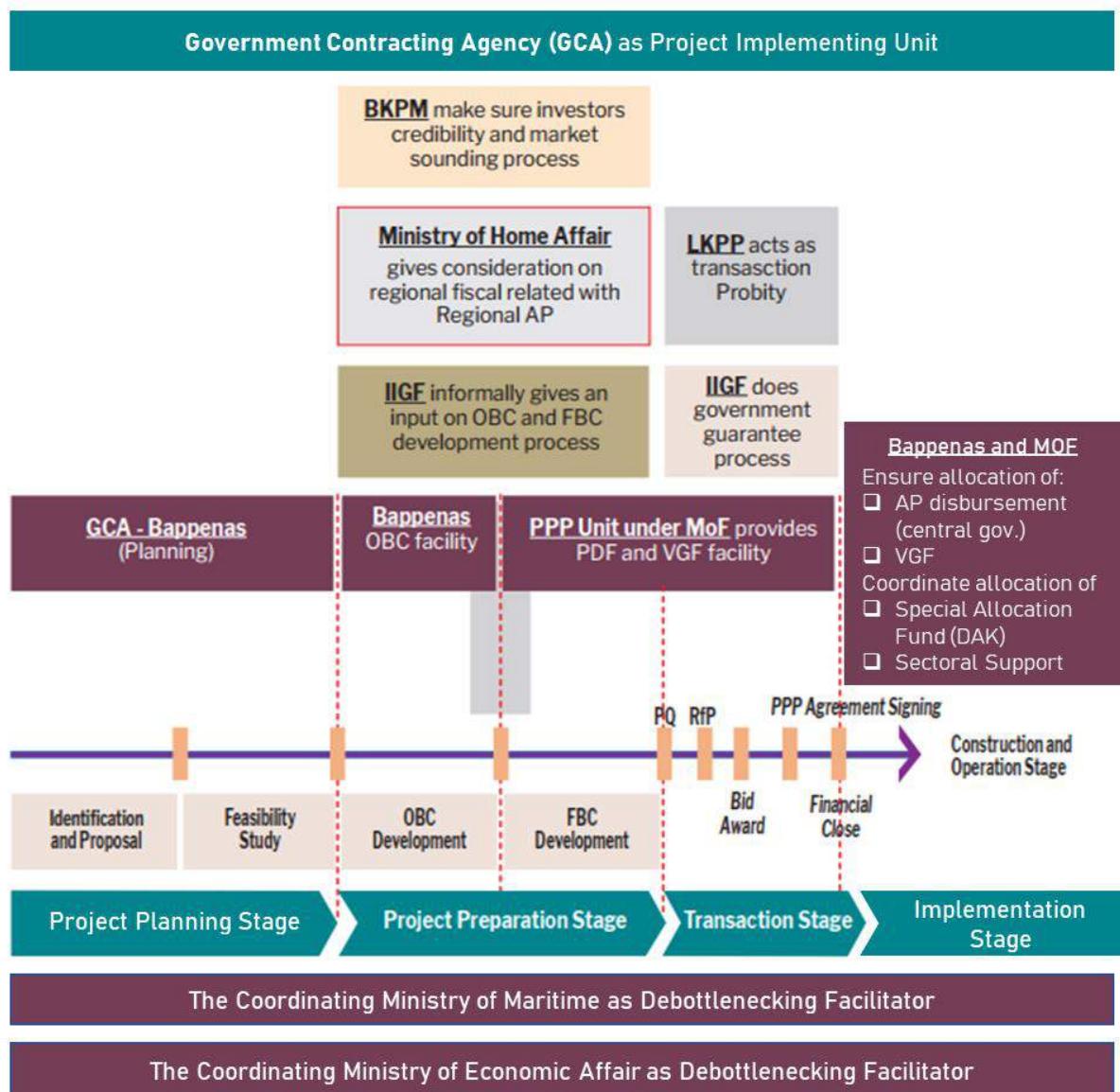
- 1) Coordinate government agencies, GCA, and SPC related to PPP project;
- 2) Facilitate all parties related the project to accelerate PPP project implementation in Indonesia; and
- 3) Capacity building related to PPP project scheme.

The members of PPP Joint Office are:

- 1) Coordinating Ministry of Economic Affairs - CMEA has the duty to solve any policy or regulatory issues regarding financing schemes and utilization of infrastructure built through the PPP scheme to support national and regional economic growth.
- 2) Coordinating Ministry of Maritime - CMoM has the task of solve any policy or regulatory obstacles regarding implementation of PPP scheme in the maritime and investment fields.
- 3) Ministry of Finance - MoF has the duty to provide fiscal support in accordance with applicable regulations, in the form of:
  - a) feasibility support;
  - b) infrastructure guarantee;
  - c) project preparation and transaction assistance facilities;
  - d) other fiscal support; and
  - e) proposals related to the funding structure and financing of the PPP project.
- 4) Ministry of Home Affairs - MoHA has the duty to carry out regional planning, regional development budgeting, and give consideration regarding the implementation of the PPP projects by regional government.
- 5) Ministry of National Development Planning / National Development Planning Agency (Bappenas) has the duty to identify, plan and facilitate PPP preparation.
- 6) Indonesia's Investment Coordinating Board (BKPM) has the task to:
  - a) managing information regarding PPP scheme;
  - b) identifying potential investors;
  - c) promoting projects that will use the PPP; and
  - d) oversee the implementation of project investments that will use the PPP scheme.

- 7) National Public Procurement Agency (LKPP) has the duty to prepare business entity procurement policies and provide assistance to the business entity procurement process on the PPP project.
- 8) Indonesia Infrastructure Guarantee Fund – IIGF has the duty in evaluating the risk analysis and its mitigation and examining the financial and economic calculation to provide the guarantee for the PPP project.

Each of PPP Joint Office members has its role and authorization in implementing PPP project. Each of the member's roles, timeframes, and workflows related to PPP pipeline is shown in figure 2.



**BKPM** :Investment Coordinating Board  
**IIGF** :Indonesia Infrastructure Guarantee Fund  
**Bappenas** :Ministry of National Development Planning

**MoF** :Ministry of Finance  
**LKPP** :National Procurement Agency  
**PQ** :Pre-Qualification

**RfP** :Request for Proposal  
**OBC** :Outline Business Case  
**FBC** :Final Business Case  
**AP** :Available Payment

Figure 2: PPP Joint Office Workflow Related PPP Pipeline

## 5. PPP PROJECT PIPELINE

Based on the Presidential Regulation Number 38/2015, there are two PPP project proposal schemes, which are **Solicited** and **Unsolicited**. Project pipeline comparison between the two schemes is shown below. **Solicited Proposal** is initiated by the Government, while the **Unsolicited Project** is initiated by the private sectors.

### 5.1 SOLICITED PROPOSAL

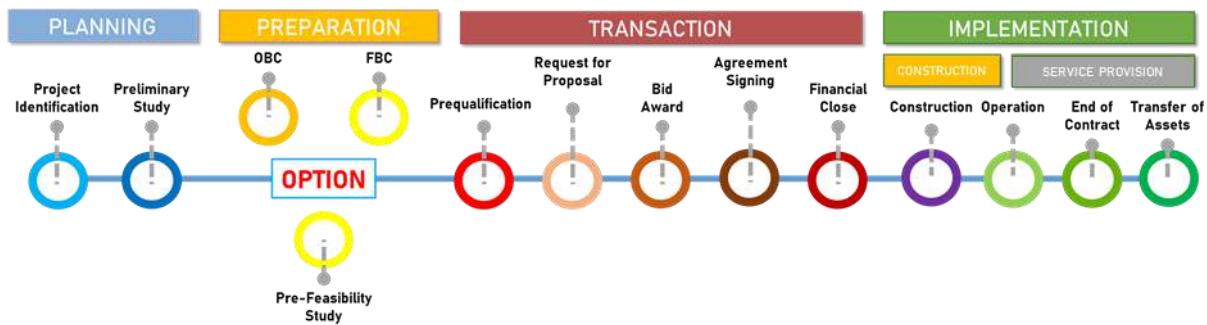


Figure 3: The Project Pipeline for Solicited Proposals

According to Minister of National Development Planning Regulation Number 2/2020, for solicited proposals, the PPP Project Pipeline consists of four phases, namely Planning, Preparation, Transaction, and Implementation.

Figure 3 shows the interrelation between the four phases of the PPP Projects Pipeline. The four phases are straightforward phases; each of them consists of another sub-process.

- 1) The planning phase consists of Project Identification and Preliminary Study. The first step is used to choose a viable PPP project from a list of projects. Then, during the second step, the project will go through a series of qualitative studies to determine whether the project is suitable for a PPP scheme. This phase is estimated to take 3 to 8 months.
- 2) In the Preparation phase, the project will undergo a series of quantitative studies to see the viability of the PPP projects, in terms of financial value, economic value, risk analysis and mitigation, et cetera. In this phase, private sectors are invited to give input in Public Consultation and Market Sounding. It is to be noted that on special cases, OBC and FBC can be combined into one document, if the project is considered priority project and/or national strategic project or if there are similar projects with proven high demand on the market. In general, it is estimated to take 6 to 8 months for a project to finish the preparation phase.
- 3) Transaction phase, which facilitates the project through a transaction to find the suitable business entity, includes Market Consultation, Prequalification, Request for Proposal, Bid Award, PPP Agreement Signing, and then Financial Close. It is estimated to take 4 to 8 months to finish the transaction phase.

- 4) Last phase is implementation phase, which consist of construction stage, operation stage and handover of asset after cooperation period is finished. During all of three stages, GCA will establish a monitoring team to oversee and evaluate each aspect of contract implementation.

## 5.2 UNSOLICITED PROPOSAL

As already mentioned above, the unsolicited PPP proposal is initiated by the private sector or the project proponent. The process framework of unsolicited PPP proposal is quite the same: Planning, Preparation and Transaction. However, the planning and preparation are conducted by the private sector as the initiator, while the transaction is conducted by the government (GCA).

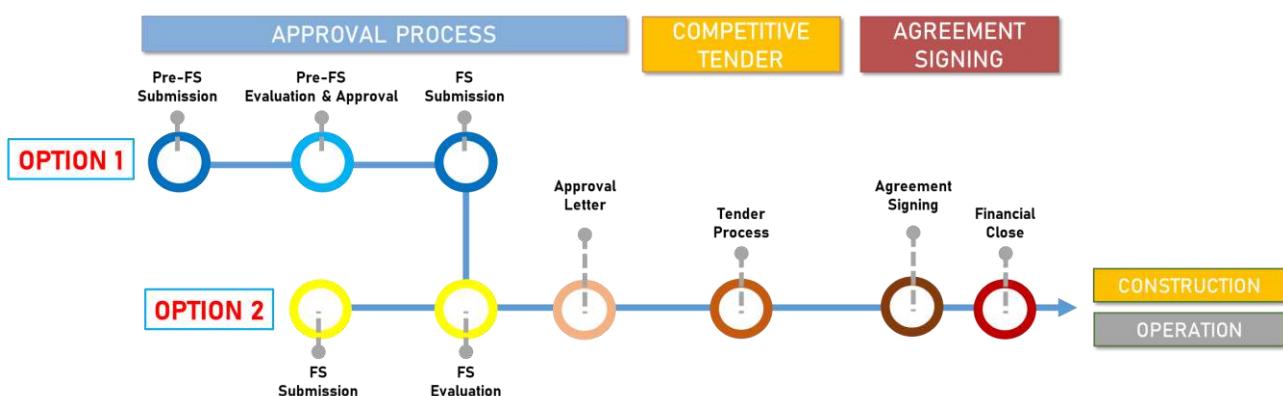


Figure 4: The Project Pipeline for Unsolicited Proposals

Based on Minister of National Development Planning Regulation Number 4/2015 as amended by Minister of National Development Planning Regulation Number 2/2020, the process for dealing with unsolicited proposals can be divided into three main stages, namely:

- 1) The first stage is the Approval Process. It starts from the time the project proponent presents the project in form of Letter of Intent (LoI) accompanied with Pre-Feasibility Study or Feasibility Study. After receiving the feasibility study, the GCA then must do all internal assessments and decide whether to approve the project or not. When the GCA approve the project after assessing and evaluating the proposal it must issue an Approval Letter.

Project proponent may choose to submit Pre-Feasibility Study or the Feasibility Study. If the project proponent chooses Option 1 by submitting Pre-Feasibility Study, the GCA will evaluate it in 30 working days (may be extended) and issue Pre-FS Approval. The GCA then will give rights to the project proponent to prepare the Feasibility Study. If the project proponent chooses Option 2 by directly submitting a Feasibility Study, the government will evaluate it in 60 working days (may be extended) and issue FS Approval Letter. The project proponent then will be announced as Project Initiator.

The Project Initiator may choose the incentives or benefit as a compensation for their work of preparing the project. The choices of incentives or benefits to the Project Initiator are as follows:

a) Right to Match

If another bidder with a better proposal wins the tender process after the evaluation, Project Initiator may, at their own consideration, match their proposal to the winning proposal and be declared as the winner.

b) Additional Point on Procurement Score

The Project Initiator automatically gains additional score of 10% during the proposal evaluation process.

c) Sold the initiatives to the GCA

GCA can purchase the intellectual property of the feasibility study on an agreed price from the Project Initiator. The feasibility study document is then owned by the GCA. Then, Project Initiator can decide whether to participate without any added incentives or not participate in the tender process at all.

- 2) The second stage involves a Competitive Tender Process. the bidding process is conducted similar to the solicited PPP project from pre-qualification until the bid award.
- 3) The third stage, the PPP Agreement Signing is also done in similar way to the solicited PPP project. This stage starts from the signing of PPP agreement until the financial close.

## 6. PPP RETURN OF INVESTMENT METHODS

According to Minister of National Development Planning Regulation Number 4/2015 as amended by Minister of National Development Planning Regulation Number 2/2020, there are 3 (three) options for the return of investment method, namely:

- 1) User charge payment in the form of Tariff, in this scheme the SPC's main income is based on user charge payment;
- 2) Availability Payment, in cases where the project is not financially profitable, the government will pay an agreed amount of annual payment as the SPC's main income; and
- 3) In other forms, in accordance by the laws

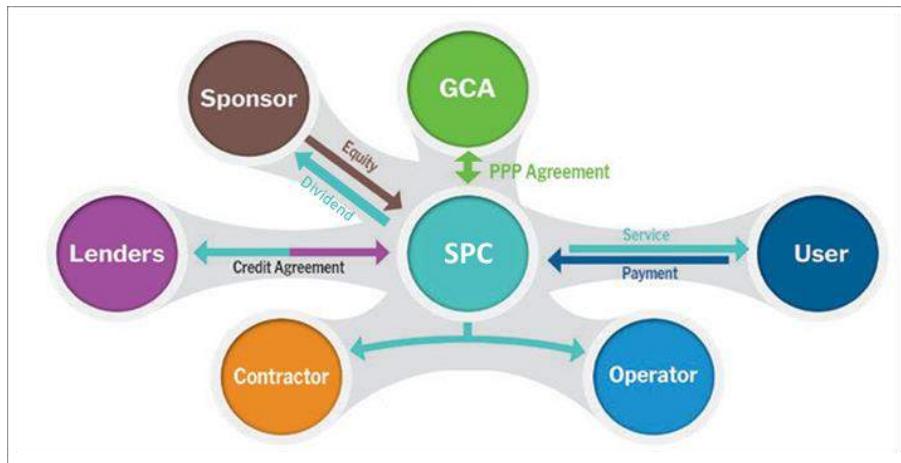


Figure 5: User Charge Scheme

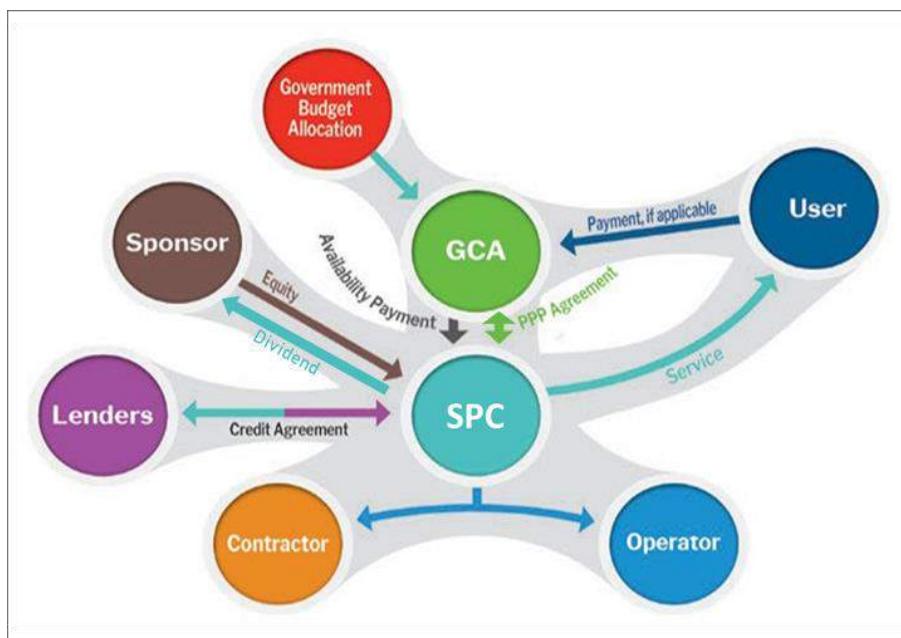


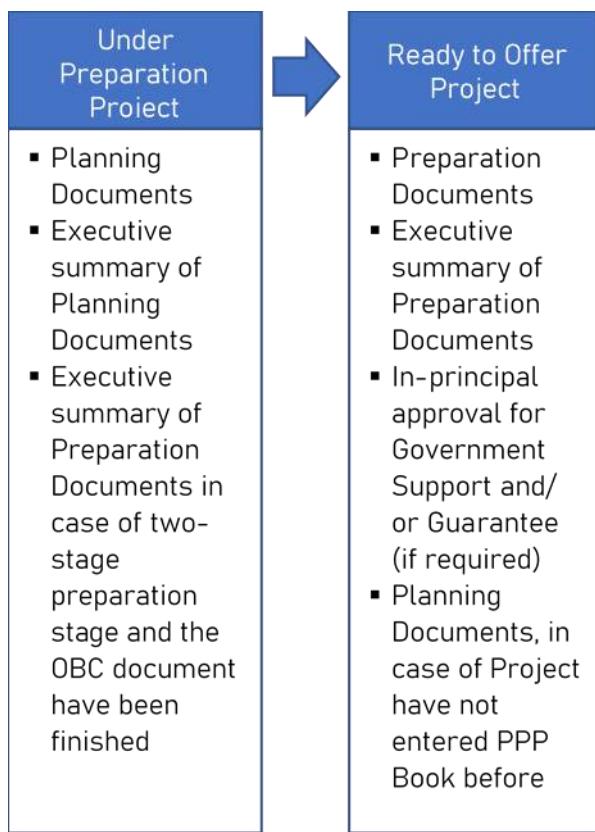
Figure 6: Availability Payment Scheme

## 7. PPP PROJECT SELECTION CRITERIA

The PPP Book is a list of Public-Private Partnership projects planned in Indonesia. The list consists of two categories: (i) Under Preparation Projects; and (ii) Ready to Offer Project. The PPP Book is prepared and published every year by the process of the Government's Work Plan.

To be registered in the PPP Book, the Minister, Head of Institution or Head of Local Government must submit their project proposal to Bappenas along with a statement about the Ministry/Institution or Local Government's working unit that will be responsible for planning, preparation and transaction of the proposed PPP project. The PPP project

proposal should be accompanied by supporting documentation that differs between planning stages, shown in Figure 7.



**Figure 7: Supporting Documentation for PPP Project Proposals**

The projects inside the PPP Book 2020 has been drafted in compliance with Minister of National Development Planning Regulation Number 4/2015 as amended by Minister of National Development Planning Regulation Number 2/2020, which governs the procedures for the implementation of PPP projects and registration of projects in the PPP Book respectively. The criteria in this regulation have been designed to ensure that all projects are appropriately analysed and thoroughly designed before entering the PPP Book.

The Government is aware that any information that gives bidders a good understanding of the technical requirements of the projects will help them arrange the right mix of consortium partners with confidence, making them more likely to participate in the venture. An overview of the output or performance specification for a service or facility helps potential bidders understand what the project is intended to produce. This results in a clearer definition of scope and responsibilities, including the needs of specialist partners.

Following is a summary of assessment criteria for projects to be integrated into the PPP Book, along with requirements associated with environmental assessment, land acquisition and resettlement, government support and the government guarantee for each of the planning categories of the Book.

### 1) Under Preparation Project

Under Preparation Project Eligibility Criteria
<ul style="list-style-type: none"> <li>▪ Compliance with National/Regional Mid-Term Development Plan and Strategic Plan of infrastructure sector;</li> <li>▪ Suitability of the project location which will be cooperated with Spatial Plan;</li> <li>▪ Relation between inter-sector of Infrastructure and inter-region; and</li> <li>▪ Has prepared the Preliminary Study.</li> </ul>

## 2) Ready to Offer Project

### Ready to Offer Project Eligibility Criteria

- Has obtained certainty regarding PPP readiness, technical compliance, market interest, and the option of PPP form;
- Has completed environmental impact assessment in accordance with applicable laws and regulations;
- Has prepared detailed draft of output specification;
- Has prepared draft of SPC investment return;
- Has conducted financial model analysis, allocation and risk mitigation and also granting of Government Support and/or Government Guarantee mechanism, if needed;
- Has prepared a draft of SPC procurement plan considering:
  - Market potential and interest of Business Entities on the project;
  - Feasibility of planning and schedule of tender process; and
  - Readiness of the Procurement Committee.

## 3) Important Notes related to the Viability Gap Fund and Government Guarantee during the Procurement Process

### Activities Related to Government Support

- Before Prequalification stage, the GCA shall file a request for granting initial determination of feasibility support, in accordance with the laws and regulations;
- During bid stage, the Minister of Finance shall issue a principal approval letter on VGF support;
- Once a tender winner has been selected, the GCA must submit the tender results to the Minister of Finance as the basis for the Minister of Finance to issue the final decision letter on VGF support.

### Activities Related to Government Guarantee

- Before project bidders submit their proposals, the GCA must ensure that Guarantor has issued the approval in principle, in the form of a Letter of Intent based on the results of Guarantor's evaluation.

## 4) Unsolicited Project

### Unsolicited Project Eligibility Criteria

- Technically integrated with regional long term plan and/or sectoral master plan;
- Economically and financially feasible;
- The project proponent has adequate financial capabilities to finance the project

## 8. PPP Project Evaluation

### 8.1 PPP Books From 2009 to 2020

The following figure depicts the evolution of PPP projects throughout the successive PPP Books since the year 2009.

During 2019, Bappenas received proposals for new infrastructure project from ministries as well as local government. Bappenas had been reviewing and screening those proposals in compliance with Minister of National Development Planning Regulation 4/2015 as amended by Minister of National Development Planning Regulation 2/2020. From the review and screening process, 51 proposals can be accepted to be included in PPP Book 2020 categorized as Ready to Offer and Under Preparation Projects. Other than two categories as regulated the regulations, there are other categories such as Already Tendered projects and Successful Stories.

	PPP BOOK 2009	PPP BOOK 2010-2014	PPP BOOK 2011	PPP BOOK 2012	PPP BOOK 2013	PPP BOOK 2015		PPP BOOK 2017	PPP BOOK 2018	PPP BOOK 2019	PPP BOOK 2020	
Already Tendered			4 projects	5 projects	12 projects	21 projects	22 projects	Already Tendered	17 projects	8 projects	9 projects	15 projects
Ready to Offer	8 projects	1 projects	13 projects	3 projects	0 projects	6 projects	Ready to Offer	1 projects	7 projects	1 projects	14 projects	
Prospective	18 projects	26 projects	21 projects	26 projects	14 projects	8 projects	Under Preparation	21 projects	21 projects	19 projects	37 projects	
Potential	61 projects	73 projects	45 projects	29 projects	13 projects	24 projects		22 projects	28 projects	20 projects	51 projects	
TOTAL	87 projects	100 projects	79 projects	58 projects	27 projects	38 projects						
BAPPENAS Minister Regulation 3/2009				BAPPENAS Minister Regulation 6/2012				BAPPENAS Minister Regulation 4/2015				
								BAPPENAS Minister Regulation 2/2020				

Figure 8: Summary of PPP Book Projects from 2009 to 2020

### 8.2 PPP Book 2019 Project Progression

Figure 9 summarizes the results of the evaluation process carried out since the publishing of the previous edition of the PPP Book. Of the 20 projects in the 2019 edition, 10 projects are carried on to this edition while others have progressed to next stage of PPP scheme or dropped because of various conditions.

The carried projects are:

1. Motor Vehicle Roadworthiness Testing and Certification Agency (BPLJSKB) Proving Ground
2. Preservation of Eastern Sumatera National Road in Riau Province
3. Development of Baubau Port

4. Development of Motor Vehicle Weighing Implementation Unit (UPPKB) in Java and Sumatera
5. Semarang City Light Rail Transit (LRT)
6. Construction of Industrial Correctional Facility in Nusakambangan
7. Relocation of Correctional Facility from City Downtown to Outskirt
8. Teluk Bintuni Industrial Zone
9. Surakarta Street Lighting
10. Legok Nangka Regional Waste Processing Facility

The PPP Book 2020 contains those projects that have progressed or remained unchanged from the previous edition and new projects that have succeeded in the evaluation of the process.

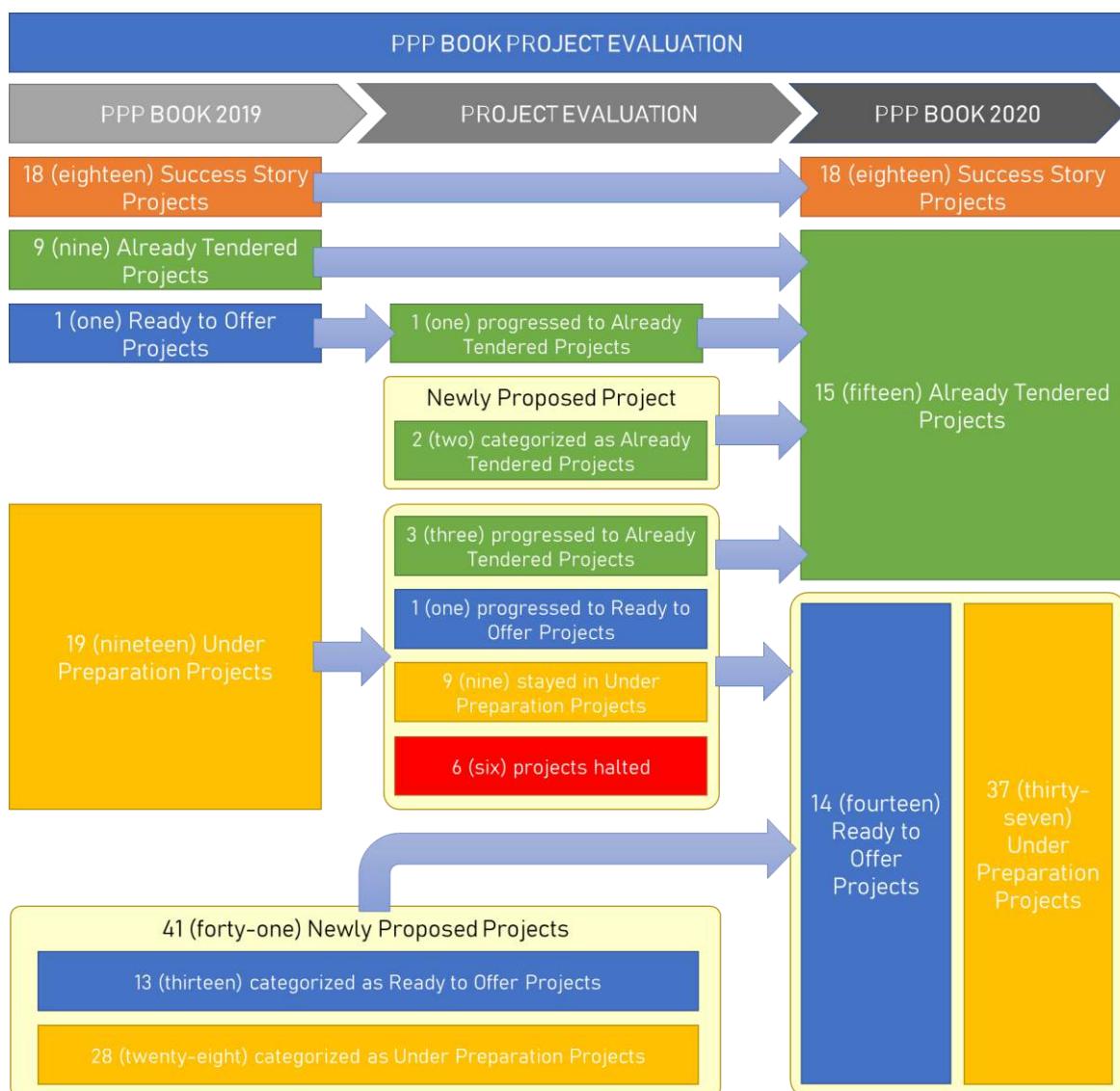


Figure 9: PPP Book Evaluation

# **PPP PROJECTS**

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**Registered in PPP Book 2020**

## Project Summary

The following is the list of projects registered in PPP Book 2020 based on Minister of National Development Planning Decree No. 22/2020 and No. 61/2020.

**Table 1: Ready to Offer Project Summary**

No	Project Name	Description	Status (per June 2020)
1	Patimban Port	Patimban Port in Subang (West Java) designated as a national strategic project located near Cikarang Industrial Zone to support trading activities in Java, the country's most populated island and center of its manufacturing activities.	Ready to Offer (FBC)
2	Motor Vehicle Roadworthiness Testing and Certification Agency (BPLJSKB) Proving Ground	This BPLJSKB Proving Ground is planned as a certification and testing facilities for motor vehicles to improve motor vehicle's safety and security and also to reduce level of emission. It will adopt UNECE standards and it will comprise high speed tracks, brake-testing, sound testing, sideslip-testing and other testing facilities.	Ready to Offer (FBC)
3	Semanan – Balaraja Toll Road (unsolicited)	Semanan-Balaraja Toll Road section is part of the Inner Jakarta Toll Road Network. The toll road will start at the end of Serpong-Balaraja Toll Road section, located in East Balaraja Interchange. It will have the length of 32.39 km with 4 interchange and 2 junction.	Ready to Offer (Approval Letter)
4	Kamal – Teluk Naga – Rajeg Toll Road (unsolicited)	38.6 km Kamal-Teluknaga-Rajeg Toll Road is located in North Jakarta (DKI Jakarta Province) and Tangerang Regency (Banten Province). This toll road is planned as part of the	Ready to Offer (Approval Letter)

No	Project Name	Description	Status (per June 2020)
		toll road network system in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) area and will support Pantura strategic area.	
5	Patimban Access Toll Road (unsolicited)	The New Patimban Port development plan requires accessibility that facilitates direct access to and from Patimban Port. The port is planned to be connected with industrial zones, economic zones, urban areas and the surrounding rural areas. Patimban access toll road will connect Patimban Port with Cikopo - Palimanan Toll Road Section. This toll road will have a length of 37.7 km with 2 interchange locations and 1 interchange junction location.	Ready to Offer (Approval Letter)
6	Gedebage – Tasikmalaya – Cilacap Toll Road (unsolicited)	The project is to construct 206.65 km toll road of Gedebage-Tasikmalaya-Cilacap which is expected to overcome traffic problems and encourage economic and regional growth. This toll road is equipped with 1 junction and 10 interchanges.	Ready to Offer (Approval Letter)
7	Bogor – Serpong (via Parung) Toll Road (unsolicited)	The project is to construct ±31.11 km of Bogor-Serpong toll road which is expected to overcome traffic problems and encourage economic and regional growth. This toll road is equipped with five interchanges and two junctions.	Ready to Offer (Approval Letter)
8	Cikunir-Karawaci Inner City Elevated Toll Road (unsolicited)	The project is to construct ±40 km of Cikunir-Tomang-Karawaci Elevated toll road with PPP scheme. The proposed toll	Ready to Offer (Approval Letter)

No	Project Name	Description	Status (per June 2020)
		road plan will be above the existing toll road section, which the start point located in Cikunir (at the junction between JORR and the Jakarta-Cikampek toll road) and the end point located after the Alam Sutera intersection. Business entity shall responsible to perform the toll road project with build-operate-transfer (BOT) scheme.	
9	Cikunir-Ulujami Jakarta Outer Ring Road (JORR) Elevated Toll Road (unsolicited)	The project is to construct ± 21.5 km of The Jakarta Outer Ring Road (JORR) Elevated toll road with PPP scheme. The starting point located in after Ulujami Junction and the end point is before Jati Asih Junction.	Ready to Offer (Approval Letter)
10	Multi Lane Free Flow (MLFF) Toll Road Transaction System (Unsolicited)	The project is to establish new toll collection system, which replaces the existing manual toll collection method. The project scope is Design, Build, Finance, Operate, and Transfer (D-B-F-O-T). The proposed system has the technical requirement of MLFF GNSS toll collection.	Ready to Offer (Approval Letter)
11	Semarang Harbour Toll Road (Unsolicited)	The project is to construct ± 20.86 km of Semarang Harbour toll road which connects the Semarang - Batang Toll Road (SBTR) and Semarang - Demak Toll Road to complete the Ring Road around the City of Semarang. This toll road will be integrated with the sea wall and retention pond in the city of Semarang. The return of investment of the sea wall comes from the development of the reclamation area given to the winner of the auction while	Ready to Offer (Approval Letter)

No	Project Name	Description	Status (per June 2020)
		the retention pond will be financed by government of Semarang city.	
12	South Sentul – West Karawang Toll Road (Unsolicited)	The project is to construct ± 61.5 km of The South Sentul – West Karawang Toll Road which connecting Sentul Junction and Karawang Junction. At the South Sentul – West Karawang Toll Road there are 3 junctions that connect to the Bogor Ring Road Toll Road, the Jakarta – South Cikampek Toll Road, and the existing Jakarta – Cikampek Toll Road.	Ready to Offer (Approval Letter)
13	Sarbagikung Regional Water Supply System (Unsolicited)	The Water Supply System (SPAM) Sarbagikung project built with capacity 2,300 lps for Increasing the capacity and quality of drinking water services in the Denpasar city, Badung regency, Gianyar regency, and Klungkung regency.	Ready to Offer (Approval Letter)
14	Karian-Serpong Regional Water Supply System (Unsolicited)	Karian-Serpong Regional Water Supply System project is developed to accelerate the expansion of piped water supply for DKI Jakarta, Tangerang City, and South Tangerang where the bulk water will be sourced from the Karian Dam in Banten Province.	Ready to Offer (Approval Letter)

Table 2 : Under Preparation Project Summary

No	Project Name	Description	Status (per June 2020)
1	Construction of Singkawang Airport	The Singkawang Airport Development Project was included as one of the 4 (four) airport projects planned to be developed under the PPP Scheme several years ago. With new development, the Singkawang Airport is planned to have 2,500 x 45 m runway with 12,500 m <sup>2</sup> area of domestic passenger terminal.	Under Preparation (OBC)
2	Development of Baubau Port	The Murhum Baubau Port needs to be developed to meet the increasing demand and to support long-term programs of Baubau Regional Government which aims to make the city as the gateway of economy and tourism in Southeast Sulawesi. This port is the most rapid economic activities compared to the other two ports in the city of Baubau.	Under Preparation (FBC)
3	Development of Anggrek Port	Anggrek Port as a goods gateway and a region economic driver needs to be supported by the development of the hinterland area including its accessibility. Trading activities and distribution of goods especially in the North Gorontalo depend on this port. Furthermore, this port is non commercial port and operated under the Directorate of Sea Transportation of the Ministry of Transportation.	Under Preparation (FBC)
4	Semarang City Light Railway Transit (LRT)	Semarang has already had an urban public transportation with BRT system. Since the BRT does not have its own dedicated lane,	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
		the congestion problem still occurred and delayed travelling time from point to point. LRT is proposed as one of the solutions to reduce congestion and planned to be built with elevated track.	
5	Development of Motor Vehicle Weighing Implementation Unit (UPPKB) in Java and Sumatera	In order to control overweight vehicles on road, Ministry of Transportation is planning to procure weighbridge/truck scale by PPP scheme for 6 location in Java and Sumatera, 1) UPPKB Tanjung, Brebes Regency, 2) UPPKB Subah, Batang Regency, 3) UPPKB Guyangan, Nganjuk Regency, 4) UPPKB Blambangan Umpu, North Lampung Regency, 5) UPPKB Merapi, Lahat Regency, and 6) UPPKB Muara Tembesi, Batanghari Regency.	Under Preparation (OBC)
6	Preservation of Eastern Sumatera National Road in Riau Province	One of the Eastern Sumatra Road in the Province starting from the Simpang Kayu Ara (Pekanbaru City) to Lago Intersection (Pelalawan Regency) consists of three streets that could be categorized as a National Road which is correlated towards the national economic growth. The approximate total length of this project will be 43 km. Investment return will be paid using the Availability Payment Method.	Under Preparation (FBC)
7	Makassar-Maros-Sungguminasa-Takalar Toll Road	The project is to construct approximately 48 Km of Mamminasata toll road. This Toll Road will connect Maros Sub-district and Takalar Sub-district without passing through Makassar City and expected to shorten the logistics path between the two regions.	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
		Mamminasata Toll Road is planned to have 4 interchanges with trumpet interchange type.	
8	Construction of Badung Southern Ring Road	The role of the ring road (11.5 km) is to improve connectivity between regions with different functions in South Badung, which can then lead to an increase in the quality of the area in accordance with its function. The various potentials of both developing new tourism areas and reviving local community commodities, including arts and culture, are the reasons for this southern ring road development plan.	Under Preparation (OBC)
9	Duplication and/or Replacement of Callender Hamilton Bridge in Java Main Road	This project is to replace and duplicate 38 Callender Hamilton Bridges in the Java Island Main Cross Road. The location of the bridges is on the national road connecting the provincial capital and are the main logistics route to Sumatera Island in order to increase national economic activity. There are bridges in Banten, in West Java, in Central Java, and East Java. The PPP scheme used is Build – Operate – Transfer with Availability Payment.	Under Preparation (OBC)
10	Batam-Bintan Bridge	This project is to construct a bridge connecting Batam and Bintan which located in Riau Islands province. the project is expected to use a PPP scheme with user charge as return of investment scheme.	Under Preparation (Preliminary Study)
11	Construction of Merangin Dam	The program has been prepared with the support of Bappenas and the Ministry of Public Works and	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
		Housings ("PUPR"). The program is expected to generate economic, social, environmental, water management and livelihood benefits for the people of the Merangin Regency and Jambi Province, as well as to enhance food and energy security and boost economic growth on the Jambi Province.	
12	Pasir Kopo Dam	This project is to construct a Pasir Kopo Dam which located on Lebak Regency of Banten Province. Pasir Kopo Dam is will cover area in the Cidanau – Ciujung – Cidurian River Region (C3).	Under Preparation (Preliminary Study)
13	Sidan Dam Raw Water Channel	Sidan Dam Raw Water Channel is part of bigger development project to support clean water supply for Sarbagita (Denpasar, Badung, Gianyar, and Tabanan) Region in Bali. This channel will distribute water from Sidan Dam.	Under Preparation (Preliminary Study)
14	Construction of Kamijoro Regional Water Supply System	Kamijoro Regional Water Supply system is aimed to supply the drinking water to the regencies of Bantul and Kulon Progo. The project was initiated due to limited water resource for local people, while also supporting the current development of New Yogyakarta International Airport, and industrial area within. The project utilizes bulk water from Progo River through Kamijoro Dam, which has been planned to supply 475 lps ("lps") drinking water, consist of 286 lps to Bantul Regency and 189 lps to Kulon Progo Regency.	Under Preparation (FBC)

No	Project Name	Description	Status (per June 2020)
15	Construction of Jatigede Regional Water Supply System	1,500 L/sec of Jatigede regional water supply will service Sumedang Regency, Majalengka Regency, Cirebon Regency, Indramayu Regency and Cirebon city. Jatigede water supply consist of intake, 3x500 L/s WTP, 56.3 km main distribution network: 56.3 km, and distribution reservoir: seven distribution reservoirs located at each off-taker (Tomo, Jatitujuh, Jatiwangi, Jatibarang, Krangkeng, Babadan and Kepompong).	Under Preparation (OBC)
16	Pantura Regional Water Supply System	Pantura Water Supply System will utilize water from Bengawan Solo River to supply water in Lamongan, Bojonegoro and Tuban Regency..It is projected that in 25 years, the water demand in the area will grow to 1,749 lps. To fulfill this demand, the government needs to expand the current water supply system.	Under Preparation (Preliminary Study)
17	Dadimuria Regional Water Supply System	Dadimuria Regional Water Supply System will provide clean water for population in Grobogan Regency, Kudus Regency, Pati Regency and Jepara Regency. Due to the growing population, the needs for clean water will also increase. The first phase of the project will be constructed using PPP scheme.	Under Preparation (Preliminary Study)
18	Bregas Regional Water Supply System	Bregas Regional Water Supply System development plan is implemented to fulfill and accelerate the development target of 100-0-100 by expanding coverage water supply piping services in Brebes Regency, Tegal Regency and Tegal City. Currently	Under Preparation (Preliminary Study)

No	Project Name	Description	Status (per June 2020)
		each of these regions has the coverage of piping services that is still below 50%. This project aim at increasing the coverage area and increase the efficiency of the system.	
19	Wosusokas Regional Water Supply System Phase 2	Wosusokas Regional Water Supply System provide clean water for population in Wonogiri Regency, Karanganyar Regency, Sukoharjo Regency and Surakarta City. Due to the growing population, the needs for clean water will also increase. The project will be done in two phases with phase II to be constructed using PPP scheme.	Under Preparation (Preliminary Study)
20	Construction of Waste to Energy Facility in South Tangerang	Waste management of 800 tonnes per day is located in Cipeucang Landfill, South Tangerang, Banten. Conversion of waste to electricity with output capacity to be determined and Purchase Agreement with PLN. Scope of this project are design, build, finance, operate, maintain the WTE plant and supporting infrastructure.	Under Preparation (FBC)
21	Legok Nangka Regional Waste Processing Facility	The development of Waste management of 1,853 – 2,131 tonnes per day of waste sourced from 6 municipalities (Bandung Regency, Bandung City, Sumedang Regency, Cimahi City, West Bandung Regency, and Garut Regency) located in Legok Nangka, West Java. Conversion of waste to electricity with output capacity to be determined and Purchase Agreement with PLN.	Under Preparation (FBC)

No	Project Name	Description	Status (per June 2020)
22	Sarbagita Suwung Waste to Energy Facility	Bali is planning to construct WtE plant to improve waste management services in Bali Province, especially in the areas of Denpasar, Badung, Gianyar and Tabanan. The plant will have a waste input capacity of 1,350 tonnes/day and electricity production capacity of 19.5 MW. This development will make waste management in Bali environmentally friendly and cost efficient.	Under Preparation (FBC)
23	Jatibarang Waste to Energy Facility	Jatibarang WtE Project is one of the National Strategic Projects under Presidential Regulation (Perpres) No. 3/2016. The existing landfill site at Jatibarang will reach its maximum capacity within the next few years. The potential private sector partner will be responsible for designing, building, financing, operating, maintaining, and transferring (DBFOMT) the WtE plant, which has a proposed capacity of 1,000 tonnes/day of municipal solid waste (MSW).	Under Preparation (FBC)
24	Development of Piyungan Landfill	The project aims to develop current landfill (TPA) waste management system in Piyungan Waste Landfill. Private partner shall be responsible to finance, design, construct, operate, and maintain Piyungan Waste Landfill.	Under Preparation (OBC)
25	Integrated Hazardous Waste Management System in Sumatera & Sumapapua Region	The amount of hazardous waste that can be managed is still inadequate compared to the production of hazardous waste for each year, so that hazardous waste management services are	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
		still needed. This project is to develop Integrated Hazardous and Specific Waste Management Facility in Sumatra and Sumatera Area with PPP scheme. The Project scheme implemented will be build-operate-transfer.	
26	Development of Modern Land Registry Information System	The objective of the project is to improve public service in land affairs through development of Modern Land Information System. Modern Land Information System development in land affairs focus on transformation from conventional to electronic service (website and mobile apps), through implementing advanced technologies to support Accelerated Systemic Land Registration (PTSL) project target and 100 percent land certificates in Indonesia by 2025.	Under Preparation (OBC)
27	Provision of Kuta Integrated Utility Panel	Badung Regency have decided to construct underground utility ducting that integrates several utility line in Kuta District and its surrounding. The ducting will be in form of Pre-Cast Concrete Box Culvert and Pipe Conduit. The total length of the ducting will be 19,471 m of Box Culvert and 36,656 m of Pipe Conduit.	Under Preparation (OBC)
28	Surakarta Street Lighting	The Government of Surakarta is proposing to revitalise the PSL public services within the city, covering 976 km city road network. The project will be implemented in PPP scheme. The scheme will include PPP agreement between the Municipal and the Business Entity along the specified concession period that	Under Preparation (FBC)

No	Project Name	Description	Status (per June 2020)
		requires the Business Entity to finance, design, develop, operate, and maintain the PSL service.	
29	Madiun Street Lighting	Madiun Regency is one of the main investment destinations for prospective industries in West Java, which borders Central Java Province. Madiun Regency is directly well connected to the Trans-Java toll road network and is the main gateway for transportation from East Java to Central Java Province. This traffic needs to be supported by well-maintained street lighting to support economic activities and industrial estates, increase social mobility and improve road safety and security. To achieve this goal, Madiun District proposes a PPP Project for Madiun Street Lighting.	Under Preparation (Preliminary Study)
30	Teluk Bintuni Industrial Zone	Teluk Bintuni Industrial Zone is a National Strategic Project according to Presidential Regulation No. 56 Year 2018. This Industrial Estate consists of some natural gas plant processing to methanol, polyethylene, and polypropylene. The potential anchor industry and estate operator is PT Pupuk Indonesia.	Under Preparation (FBC)
31	Development of Jogja Agro Park	Jogja Agro Park (JAP) is expected to be model that can serve as a beneficial agribusiness learning unit (incubator). Private partners shall be responsible for constructing some facilities to accomplish the site plan, as well as conducting agribusiness researches and development, and at the same time establishing a partnership through contract	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
		farming, offering consultation for farmers, and maintain management of Jogja Agro Park.	
32	Development of Ngawi Agrotourism	Ngawi Agrotourism is one form creative economy in the agricultural sector that can provide added value to agribusiness ventures to improve the welfare of farmers. Some positive impacts of the agrotourism development, among others is to increase the sale value of agricultural commodities and develop additional source of income like homestay rentals and others.	Under Preparation (Preliminary Study)
33	Construction of National Maritime Research Zone	The Project is on providing marine research support services, to include: invest on two research vessels; construction and operation management of a new hangar, a warehouse, laboratories and an office building for Special Purpose Company (SPC) at an area of about 20,000 sqm on LIPI Science Park in Cibinong, West Java, as well as operation of fleet management unit (FMU) of the Indonesian Institute of Sciences' (LIPI) research vessels and its own.	Under Preparation (OBC)
34	Construction of Class A Regional General Hospital In Central Kalimantan	The ratio of beds to 1,000 inhabitants in Central Kalimantan Province is still below the ideal ratio. This project is to increase the bed capacity of dr. Doris Sylvanus Regional Hospital, a provincial-owned hospital to 400 beds and improve the hospital class from Class B Hospital to Class A Hospital.	Under Preparation (OBC)

No	Project Name	Description	Status (per June 2020)
35	Construction of Industrial Correctional Facility in Nusakambangan	The project aims to combine correctional facility with productive activities such as livestock breeding. The project aims to increase the value of prison by adding economic production which is expected to promote regional economic growth.	Under Preparation (OBC)
36	Relocation of Correctional Facility from City Downtown to Outskirt	PPP project to relocate Salemba Correctional Facility that is located in Central Jakarta has the following objectives: (i) to solve the overcapacity in Salemba's prison; (ii) DKI Jakarta Spatial Plan did not accommodate current prison location; (iii) to accommodate the Government's budget constraint for building prisons.	Under Preparation (OBC)
37	Bina Harapan Cisaranten Housing	Development of affordable housing plus commercial exploitation on a land parcel of 3.7 Hectares (under calculation) comprising of four apartment towers of 20 floors each, with an approximate potential of 2,000 housing units.	Under Preparation (OBC)

## Project Investment Summary

No	Project Name	Estimated Project Cost (USD Million)
<b>Ready to Offer</b>		
1	Patimban Port	511.11
2	Motor Vehicle Roadworthiness Testing and Certification Agency (BPLJSKB) Proving Ground	116.76
3	Semanan-Balaraja Toll Road	1,117.26
4	Kamal-Teluk Naga-Rajeg Toll Road	1,331.39
5	Patimban Access Toll Road	457.37
6	Gedebage-Tasikmalaya-Cilacap Toll Road	4,143.49
7	Bogor-Serpong (via Parung) Toll Road	621.73
8	Cikunir-Karawaci Inner City Elevated Toll Road	1,815.57
9	Cikunir-Ulujamai Jakarta Outer Ring Road (JORR) Elevated Toll Road	1,541.00
10	Multi Lane Free Flow (MLFF) Toll Road Transaction System	300.72
11	Sarbagikung Regional Water Supply System	222.00
12	Semarang Harbour Toll Road	836.81
13	South Sentul – West Karawang Toll Road	1,067.70
14	Karian-Serpong Regional Water Supply System	169.26
<b>Under Preparation</b>		
1	Construction of Singkawang Airport	313.04
2	Development of Baubau Port	24.00
3	Development of Anggrek Port	69.58
4	Semarang City Light Rail Transit (LRT)	1,041.48
5	Development of Motor Vehicle Weighing Implementation Unit (UPPKB) in Java and Sumatera	23.57
6	Preservation of Eastern Sumatera National Road in Riau Province	67.85
7	Makassar-Maros-Sungguminasa-Takalar Toll Road	638.24
8	Construction of Badung Southern Ring Road (Option 1)*	315.00
	Construction of Badung Southern Ring Road (Option 2)*	142.80
9	Duplication and/or Replacement of Callender Hamilton Bridge in Java Main Road	188.38
10	Batam-Bintan Bridge	609.69
11	Construction of Merangin Dam (Option 1)*	242.85
	Construction of Merangin Dam (Option 2A)*	331.32
	Construction of Merangin Dam (Option 2B)*	331.32
	Construction of Merangin Dam (Option 2C)*	339.87
	Construction of Merangin Dam (Option 3)*	339.87
12	Pasir Kopo Dam (Option 1)*	141.73
	Pasir Kopo Dam (Option 2)*	158.33
13	Sidan Dam Raw Water Channel	32.40

<b>14</b>	Construction of Kamijoro Regional Water Supply System (Option 1)*	18.89
	Construction of Kamijoro Regional Water Supply System (Option 2)*	20.29
<b>15</b>	Construction of Jatigede Regional Water Supply System	141.64
<b>16</b>	Bregas Regional Water Supply System**	Under Calculation
<b>17</b>	Dadimuria Regional Water Supply System**	Under Calculation
<b>18</b>	Pantura Regional Water Supply System**	Under Calculation
<b>19</b>	Wosusokas Regional Water Supply System Phase 2**	Under Calculation
<b>20</b>	Integrated Hazardous Waste Management System in Sumapapua & Sumatera	67.89 (Sumatera Region) 43.48 (Sumapapua Region)
<b>21</b>	Construction of Waste to Energy Facility in South Tangerang	126.16
<b>22</b>	Legok Nangka Regional Waste Processing Facility	253.05
<b>23</b>	Sarbagita Suwung Waste to Energy Facility	163.50
<b>24</b>	Jatibarang Waste to Energy Facility	194.44
<b>25</b>	Development of Piyungan Landfill	15.18
<b>26</b>	Development of Modern Land Registry Information System	743.05
<b>27</b>	Provision of Kuta Integrated Utility Panel	80.50
<b>28</b>	Surakarta Street Lighting	25.57
<b>29</b>	Madiun Street Lighting**	Under Calculation
<b>30</b>	Teluk Bintuni Industrial Zone	451.10
<b>31</b>	Development of Jogja Agro Park	34.23
<b>32</b>	Development of Ngawi Agrotourism	2.52
<b>33</b>	Construction of National Maritime Research Zone	199.21
<b>34</b>	Construction of Class A Regional General Hospital In Central Kalimantan	50.36
<b>35</b>	Construction of Industrial Correctional Facility in Nusakambangan	36.60
<b>36</b>	Relocation of Correctional Facility from City Downtown to Outskirt	96.60
<b>37</b>	Bina Harapan Cisaranten Housing	79.85
<b>TOTAL PROJECT COST</b>		<b>20,898.82</b>

\*) For Total Project Cost calculation, only the highest cost option is chosen

\*\*) Not Calculated

# **READY TO OFFER PROJECTS**

## **Transportation:**

1. Patimban Port
2. Motor Vehicle Roadworthiness Testing and Certification Agency (BPLJSKB) Proving Ground

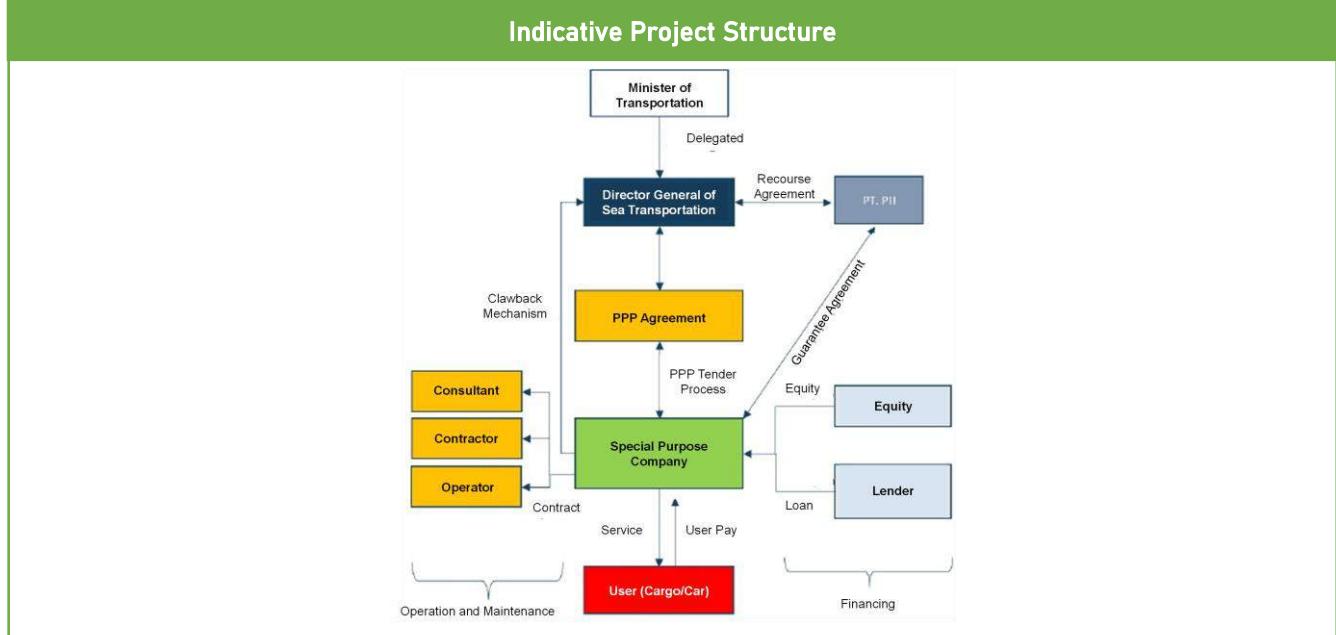
## PATIMBAN PORT

Location : Subang, West Java Province

Sector : Transportation	Sub-Sector : Port
	<b>Description:</b> Patimban Port in Subang (West Java) designated as a national strategic project located near Cikarang Industrial Zone to support trading activities in Java, the country's most populated island and center of its manufacturing activities.
	<b>Estimated Project Cost:</b> USD 511.11 Million
<b>Government Contracting Agency:</b> Minister of Transportation delegated to Director General of Sea Transportation <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Financial Feasibility:</b> IRR : 13.40% NPV : USD 103.12 Million
	<b>Estimated Concession Period:</b> 40 years

Indicative Project Schedule

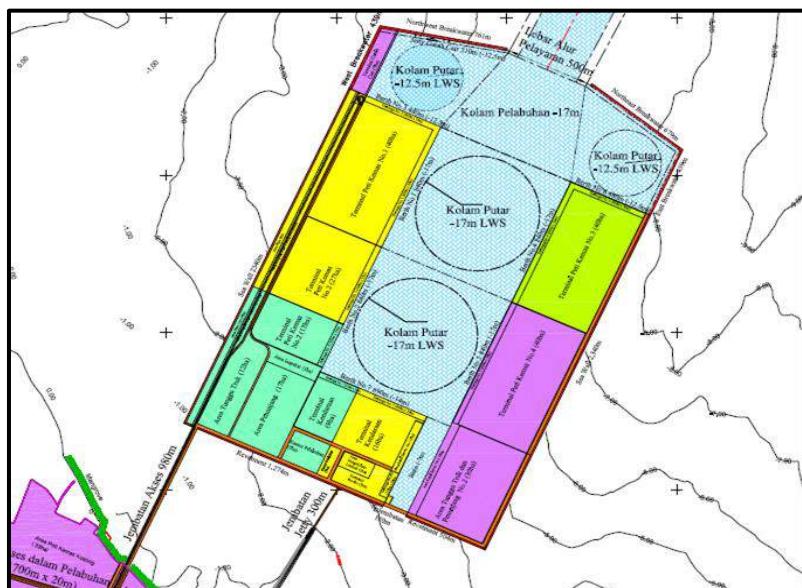
Project Status : Final Business Case



## Project Digest

Project Title	Patimban Port
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Sea Transportation
<b>Implementing Agency</b>	Directorate General of Sea Transportation
<b>Preparation Agency</b>	Directorate of Ports
<b>Project Cost</b>	USD 511.11 Million
<b>Estimated Concession Period</b>	40 Years
<b>Location</b>	Subang, West Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Patimban Port

### 2. The Opportunity

#### 2.1. Project Background

Government of Indonesia has officially declared the Patimban Port in Subang (West Java) as a national strategic project through Presidential Decree No. 47/2016, signed by Indonesian President Joko Widodo. This declaration implies that the project is regarded as priority project that benefits the economy and society as a whole. The priority status further means that all ministers, government agencies and governors need to support the development of the project.

The decree also mandates Indonesia's Ministry of Transportation to handle the development of the USD \$3.1 billion seaport project in collaboration with a port operator.

#### 2.2. Project Description

The new seaport in Patimban, a two-hour drive from the Cikarang industrial zone, thus superseded an earlier plan to build a deep sea port in nearby Cilamaya. Cilamaya is 30 minutes closer to Cikarang, but government change the plan to build a port as the construction work may interfere with oil and gas lines in and around the area.

The proposed Patimban port will have a capacity of 7.5 million twenty feet equivalent units (TEUs) by 2037, providing support for trading activities in Java, the country's most populated island and center of its manufacturing activities.

### 2.3. Project Objectives

The development will provide added value to the economy of West Java, particularly Subang, as it would provide employment opportunities. Consequently, industrial players in West Java will also get an alternative harbour for their logistics and this will cut transportation costs compared to transportation from/to the Port of Tanjung Priok, Jakarta.

## 3. Business Entity's Scope of Work

Business entity shall be responsible for financing, designing, construction, operation, and maintenance of the project during concession period.

## 4. Technical Specification

The technical specifications for Port Patimban are as follows:

PHASE 1 (STAGE 1)	PHASE 1 (STAGE 2)
<ul style="list-style-type: none"><li>▪ CONTAINER TERMINAL 35 Ha (CAPACITY 250,000 TEUS)</li><li>▪ CAR TERMINAL 25 Ha (CAPACITY 217,391 CBU)</li></ul>	<ul style="list-style-type: none"><li>▪ CONTAINER TERMINAL 66 Ha (CAPACITY 3,500,000 OF TOTAL 3,750,000 TEUS)</li><li>▪ CAR TERMINAL (CAPACITY 382,609 OF TOTAL 600,000 CBU)</li><li>▪ RORO TERMINAL 200 M</li></ul>

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Based on the points concerning the sea transportation sector, this project is classified to require an Environmental Impact Assessment (AMDAL), Environmental Management Plan and Public Consultation.

## 6. Land Acquisition and Resettlement Action Plan

From the results of studies of the Land Acquisition Planning Document, it is known that the land required for the development of Port Patimban consists mainly of fields, rice paddies, ponds, roads, cemeteries, settlements, irrigation and river. Government will be responsible for the land acquisition and resettlement.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 511.11 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>13.40%</b>
<b>NPV</b>	<b>USD 103.12 Million</b>

## **8. Government Support and Guarantee**

This project has indicated that it needs government support and guarantee from Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Aries Wibowo

Position : Head of Port Development Planning Subdirectorate

Phone :-

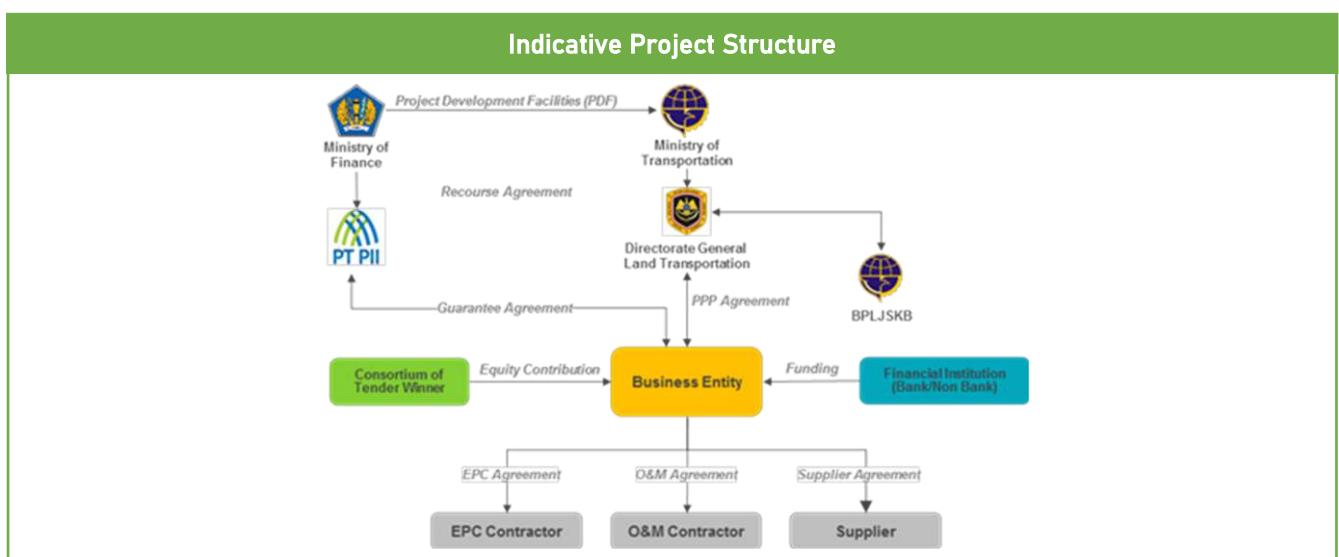
Email : kpbupelabuhan@gmail.com

## MOTOR VEHICLE ROADWORTHINESS TESTING AND CERTIFICATION AGENCY (BPLJSKB) PROVING GROUND

Location : Bekasi, West Java Province

Sector : Transportation	Sub-Sector : Vehicle Testing Facility
	<p><b>Description:</b>            This BPLJSKB Proving Ground is planned as a certification and testing facilities for motor vehicles to improve motor vehicle's safety and security and also to reduce level of emission. It will adopt UNECE standards and it will comprise high speed tracks, brake-testing, sound testing, sideslip-testing and other testing facilities.</p>
<p><b>Government Contracting Agency:</b>            Minister of Transportation delegated to            Director General of Land Transportation</p> <p><b>Type of PPP:</b>            Solicited</p> <p><b>Return of Investment:</b>            Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 116.76 Million</p> <p><b>Financial Feasibility:</b>            IRR : 11.40 %            NPV : USD 3.65 Million</p> <p><b>Estimated Concession Period:</b> 20 years</p>

Indicative Project Schedule						
						
<b>Project Status:</b> Final Business Case						



## Project Digest

<b>Project Title</b>	<b>Motor Vehicle Roadworthiness Testing And Certification Agency (BPLJSKB) Proving Ground</b>
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Land Transportation
<b>Implementing Agency</b>	Directorate General of Land Transportation ("DGLT")
<b>Preparation Agency</b>	Directorate General of Land Transportation, with support from IIGF (through PDF assignment from Ministry of Finance)
<b>Project Cost</b>	USD 116.76 Million
<b>Estimated Concession Period</b>	20 years
<b>Location</b>	Bekasi, West Java

### 1. Project Picture (Map and/or Illustration of Project)



**Picture 1 – Layout of Proving Ground BPLJSKB**

### 2. The Opportunity

#### 2.1. Project Background

To have a safe and order road traffic and land transport, the vehicles that uses the road must comply with several technical, administrative and legal criteria. One way of achieving that is by establishing center for testing and certification of motorized vehicles, also known as proving ground. The task for establishing such proving ground will be handed to Motor Vehicle Roadworthiness Testing and Certification Agency or *Balai Pengujian Laik Jalan dan Sertifikasi*

*Kendaraan Bermotor* (BPLJSKB), a unit under Directorate General Land Transportation which is part of the Ministry of Transportation.

As stipulated in the regulation, the testing and certification process should use ASEAN Mutual Recognition Arrangement (MRA) regarding motorized vehicles, which basically follows the UNECE standard. ASEAN MRA will be implemented in two phases. Phase 1 will adopt 19 standards of UNECE, while phase 2 will adopt another 32 standards. Additional benefits from adopting ASEAN MRA in testing and certification process is Indonesia can increase its automotive products' competitiveness in regional or global market.

Based on preliminary discussion, DGLT has decided to add some other testing facilities into the scope of work, as follows:

- Crash Test
- Rollover Test
- Stability Test
- Electric Power Trained Vehicle
- Co2 Emission
- Electric Vehicle of Category
- Quiet Road Transport Vehicle

## 2.2. Project Description

There are two kinds of certificate which is published by ("DJLT"), that is Sertifikat Uji Tipe (SUT) and Sertifikat Registrasi Uji Tipe (SRUT). SUT is the prove that the vehicles have passed the test, while SRUT is a prove that the vehicles have the same specification of a vehicles type that have earned an SUT. BPLJSKB scope of work is testing vehicles for SUT certification. DJLT have planned to streamline and integrate both certification under BPLJSKB to simplify the work needed for car manufacturer to have a certification. The proving ground is an essential part to realize this plan.

The construction of BPLJSKB Proving Ground is planned to use PPP scheme with a return on investment of a business entity will be done by Availability Payment, and is offered to a business entity that has the potential to finance, design, build, maintaining all assets and transfer the asset at the end of the term of cooperation, while BPLJSKB operates the facilities.

## 2.3. Project Objectives

- Fulfillment of motor vehicle's safety and security standards as regulated by Law and development of Proving Ground with adopts UN Regulations
- Conserve environment from pollution due to emissions of vehicles on the road
- Increase acceptance of Indonesian automotive products in ASEAN countries
- Increase economic growth and state revenue from higher exports

## 3. Business Entity's Scope of Work

- Project financing
- Design and construction of proving ground infrastructures and testing facilities
- Maintenance of infrastructures and testing facilities

- Provide training to enhance the capability of BPLJSKB staff
- Development of management information systems (MIS)
- Transfer of infrastructure asset and testing facilities back to GCA at the end of project

#### **4. Technical Specification**

There will be several testings to be done in the proving ground:

No.	UNR	Description	Notes
1.	R13	<i>Braking System</i>	<i>ASEAN MRA (Phase 1)</i>
2.	R13H	<i>Braking System</i>	<i>ASEAN MRA (Phase 1)</i>
3.	R14	<i>Safety-belt anchorage</i>	<i>ASEAN MRA (Phase 1)</i>
4.	R16	<i>Safety-belt and Restraint System</i>	<i>ASEAN MRA (Phase 1)</i>
5.	R17	<i>Seats</i>	<i>ASEAN MRA (Phase 1)</i>
6.	R25	<i>Head Restraints</i>	<i>ASEAN MRA (Phase 1)</i>
7.	R28	<i>Audible Warning Device</i>	<i>ASEAN MRA (Phase 1)</i>
8.	R30	<i>Pneumatic Tyre</i>	<i>ASEAN MRA (Phase 1)</i>
9.	R39	<i>Speedometer</i>	<i>ASEAN MRA (Phase 1)</i>
10.	R40	<i>Exhaust Emission</i>	<i>ASEAN MRA (Phase 1)</i>
11.	R41	<i>Noise</i>	<i>ASEAN MRA (Phase 1)</i>
12.	R43	<i>Safety Glazing Materials</i>	<i>ASEAN MRA (Phase 1)</i>
13.	R46	<i>Devices for Indirect Vision</i>	<i>ASEAN MRA (Phase 1)</i>
14.	R49	<i>Exhaust Emission</i>	<i>ASEAN MRA (Phase 1)</i>
15.	R51	<i>Sound Emission</i>	<i>ASEAN MRA (Phase 1)</i>
16.	R54	<i>Pneumatic Tyre</i>	<i>ASEAN MRA (Phase 1)</i>
17.	R75	<i>Pneumatic Tyre</i>	<i>ASEAN MRA (Phase 1)</i>
18.	R79	<i>Steering Equipment</i>	<i>ASEAN MRA (Phase 1)</i>
19.	R83	<i>Exhaust Emission</i>	<i>ASEAN MRA (Phase 1)</i>
20.	R94, R95	<i>Crash Test</i>	<i>Additional Scope</i>
21.	R66	<i>Rollover Test</i>	<i>Additional Scope</i>
22.	R79	<i>Stability Test</i>	<i>Additional Scope</i>
23.	R100	<i>Electric Power Trained Vehicle</i>	<i>Additional Scope</i>
24.	R101	<i>Co2 Emission</i>	<i>Additional Scope</i>
25.	R136	<i>Electric Vehicle of Category L</i>	<i>Additional Scope</i>
26.	R138	<i>Quiet Road Transport Vehicle</i>	<i>Additional Scope</i>

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Construction plan will not significantly be affected by land availability as the plan will fully owned by DGLT, so there will be no need for land acquisition. Although, surrounding inhabitant will be affected both positively and negatively. Predicted significant impact is the negative perception from local inhabitants towards the project which if not handled properly will become a security risk and possibly delaying the project. Land usage plan will be modified as a result of the proving ground construction.

## **6. Land Acquisition and Resettlement Action Plan**

There is no need for land acquisition as the project will be constructed on government land.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 116.76 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70% - 80%</b>
- <b>Equity Level</b>	<b>20 % - 30%</b>
<b>IRR</b>	<b>11.4%</b>
<b>NPV</b>	<b>USD 3.65 Million</b>

## **8. Government Support and Guarantee**

Government guarantee will be needed in such areas as:

- Delayed AP payment risk
- Politic & regulation risk
- Early termination risk (GCA's default)

Government supports needed as indicated in OBC are:

- Administration permit
- Tax incentives by means of removing PPN for this project
- Direct access from Cilincing-Cibitung Toll Road to proving ground area
- Constructing a noise and vision barrier alongside Cilincing-Cibitung Toll Road parallel with proving ground area
- As there is no upside risk for the private sector, no claw back should be implemented in this project

## **9. Contact Information**

Name : Susanty Pertiwi

Position : Head of Road Infrastructure Entrepreneurship Subdirectorate

Phone : +62-852-8006-5003

Email : s.pertiwi74@gmail.com

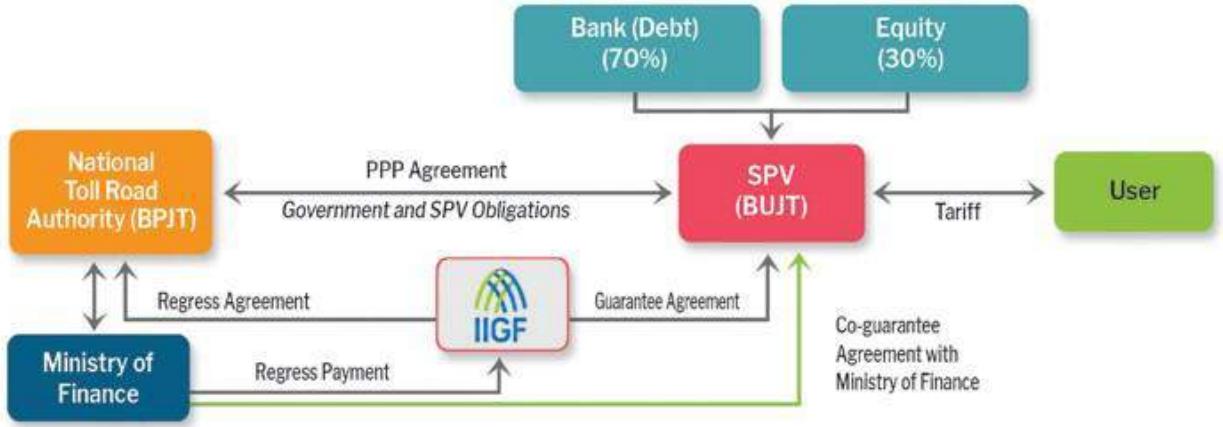
# **READY TO OFFER PROJECTS**

## **Road:**

1. Semanan-Balaraja Toll Road
2. Kamal-Teluk Naga-Rajeg Toll Road
3. Patimban Access Toll Road
4. Gedebage-Tasikmalaya-Cilacap Toll Road
5. Bogor-Serpong (via Parung) Toll Road
6. Cikunir-Karawaci Inner City Elevated Toll Road
7. Cikunir-Ulujami Jakarta Outer Ring Road (JORR) Elevated Toll Road
8. Multi Lane Free Flow (MLFF) Toll Road Transaction System
9. Semarang Harbour Toll Road
10. South Sentul – West Karawang Toll Road

## SEMANAN-BALARAJA TOLL ROAD

Location : Tangerang, West Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b> Semanan-Balaraja Toll Road section is part of the Inner Jakarta Toll Road Network. The toll road will start at the end of Serpong-Balaraja Toll Road section, located in East Balaraja Interchange. It will have the length of 32.39 km with 4 interchanges and 2 junctions.</p> <p><b>Estimated Project Cost:</b> USD 1,117.26 Million</p> <p><b>Financial Feasibility:</b> IRR : 12.04% NPV : USD 4.66 Million</p> <p><b>Estimated Concession Period:</b> 40 years</p>
<p><b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b> Unsolicited</p> <p><b>Return of Investment:</b> User Charge</p>	
<p><b>Indicative Project Schedule</b></p> 	
<p><b>Project Status:</b> Approval Letter Issued</p>	
<p><b>Indicative Project Structure</b></p>  <pre> graph TD     BPJT[National Toll Road Authority (BPJT)] &lt;--&gt; SPV[SPV (BUJT)]     SPV &lt;--&gt; User[User]     SPV &lt;--&gt; MOF[Ministry of Finance]     IIGF[IIGF]     Bank[Bank (Debt) 70%] --- SPV     Equity[Equity 30%] --- SPV     BPJT &lt;--&gt; SPV     SPV &lt;--&gt; User     SPV &lt;--&gt; MOF     IIGF &lt;--&gt; SPV     IIGF &lt;--&gt; MOF     </pre>	

## Project Digest

Project Title	Semanan-Balaraja Toll Road
Government Contracting Agency	Indonesia Toll Road Authority (BPJT)
Implementing Unit	Indonesia Toll Road Authority (BPJT)
Preparation Agency	1. PT Alam Sutera Realty 2. PT Perentjana Djaja
Project Cost	USD 1,117.26 Million
Estimated Concession Period	40 Years
Location	Tangerang, West Java

### 1. Project Picture (Map and/or Illustration of Project)

Semanan-Balaraja Toll Road will become an integrated section of the Jabodetabek Toll Road Network.



Picture 1 – Jabodetabek Toll Road Network

### 2. The Opportunity

#### 2.1. Project Background

The development of the area in the west of Jakarta, specifically the city of Tangerang and the Regency of Tangerang needs a high level of accessibility both within the region and to/from outside the region. At present the development of residential and industrial zones in the Pasar Kemis and surrounding areas is the cause of economic and social growth, thus triggering an increase in the movement of people and goods.

Currently, the movement of traffic from the Tangerang and other cities in the west of Jakarta is facilitated by the Jakarta-Tangerang Toll Road, the Jakarta Inner City Toll Road and the Jakarta Outer Ring Road Toll. The traffic flow conditions in these roads are already quite congested. To overcome the congestion on these roads, it is necessary to build alternative roads with an adequate level of accessibility and mobility. The Balaraja-Semanan toll road is

a continuation of the planned 6 inner city toll roads of Jakarta and can be an alternative to overcome the problem.

## 2.2. Project Description

The Balaraja-Semanan Toll Road Plan is part of the Jabodetabek Toll Road Network which stretches 31.9 km. The starting point of the project is the end of the Serpong-Balaraja toll road which is located at the Balaraja Interchange east of the Tangerang-Merak toll road. From that point, the road heads north and turns east in the Rajeg area. The road will then end in the Semanan area.

There will be 6 interchange and 2 junction in this toll road. The interchanges in this toll road are Pasar Kemis 1 Interchange, Pasar Kemis 2 Interchange, Rajeg 2 Interchange, Sepatan Interchange, Lebak Wangi Interchange, and Batu Ceper Interchange. The two junctions are Balaraja Junction and Rajeg 1 junction. Starting from the Lebak Wangi Interchange to Semanan on/off ramp, this toll road will be an elevated toll road running alongside Cisadane River and Mookervart River.

## 2.3. Project Objectives

The objectives of Balaraja-Semanan Toll Road is to support the development and accessibility of Tangerang and the surrounding area west of Jakarta.

## 3. Business Entity's Scope of Work

The scope of work for the business entity will be build-finance-operate-transfer.

## 4. Technical Specification

No	Facilities	Capacity
1	Length	31.9 km
2	Design Speed	80 Km/hr
3	Number of Lane	2x2 (initial stage)
4	Lane Width	3.50 m
5	Outer Shoulder Width	3.00 m
6	Inner Shoulder Width	1.00 m
7	Median Width (including inner shoulder)	4.50 m

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The schedule of AMDAL study has been explained in the feasibility study document and business plan. Currently, the EIA Terms of Reference (KA-ANDAL) have been issued by the project preparation agency.

## 6. Land Acquisition and Resettlement Action Plan

Land Acquisition plan have been made with cost approximately USD 412.84 million.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 1,117.26 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>12.04 %</b>
<b>NPV</b>	<b>USD 4.66 Million</b>

## **8. Government Support and Guarantee**

The study has indicated that this project needs government support in terms of Land Acquisition and government guarantee from Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Denny Firmansyah

Position : Head of Investment Division

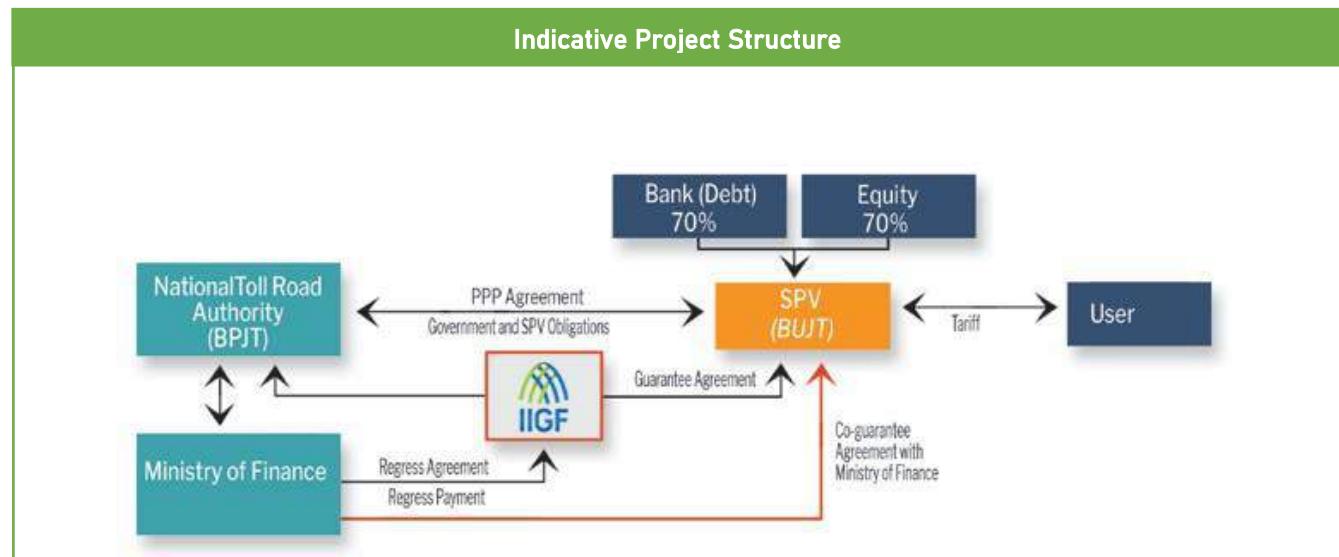
Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## KAMAL-TELUK NAGA-RAJEG TOLL ROAD

Location : DKI Jakarta and Banten Provinces

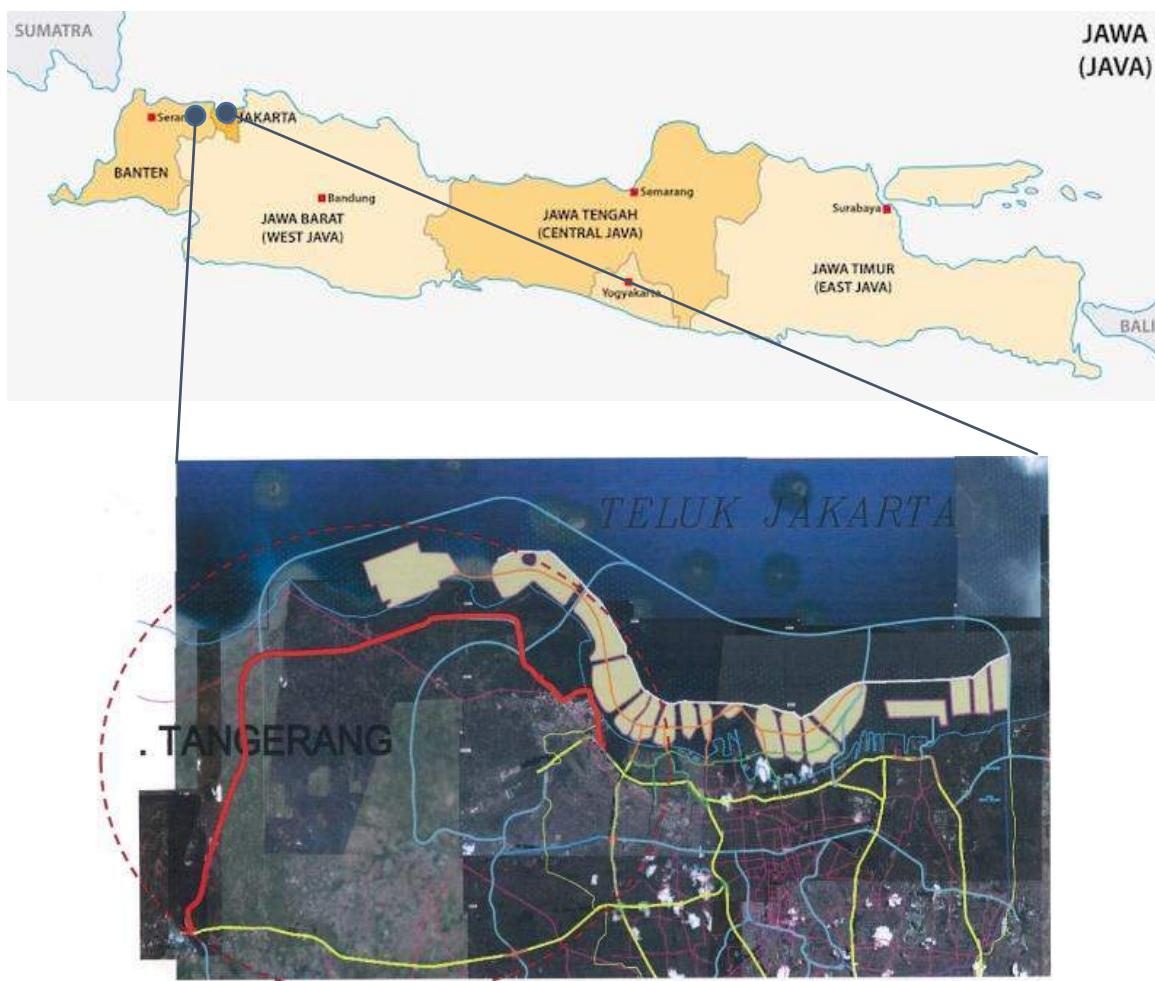
Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> 38.6 km Kamal-Teluknaga-Rajeg Toll Road is located in North Jakarta (DKI Jakarta Province) and Tangerang Regency (Banten Province). This toll road is planned as part of the toll road network system in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) area and will support Pantura strategic area.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 1,331.39 Million <b>Financial Feasibility:</b> IRR : 10.58% NPV : USD 96.44 Million <b>Estimated Concession Period:</b> 40 years



## Project Digest

<b>Project Title</b>	Kamal – Teluknaga – Rajeg Toll Road
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Implementing Unit</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	PT. Duta Graha Karya
<b>Project Cost</b>	USD 1,331.39 Million
<b>Estimated Concession Period</b>	40 Years
<b>Location</b>	DKI Jakarta Province and Banten Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Jabodetabek Toll Road Network

### 2. The Opportunity

#### 2.1. Project Background

Pantura coast reclamation area is expected to support the provision of land for DKI Jakarta province as a development of a new international scale commercial center and the development of a water front city area. The toll road is one of the infrastructures prepared to support the development of North Jakarta area and the development of Pantura strategic area,

in order to overcome traffic problems and encourage economic and regional growth. This toll road is planned as part of the toll road network system in the Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) area.

## 2.2. Project Description

Kamal-Teluknaga-Rajeg Toll Road (38.6 km) starts from Kamal Muara, Penjaringan sub-district (DKI Jakarta Province) and ends in Rajeg sub-district (Banten Province), meets the Semanan-Balaraja toll road plan. This toll road is equipped with 1 junction and 8 interchanges as follows:

- Junction Sedyatmo;
- Interchange Kosambi;
- Interchange Teluk Naga;
- Interchange Tanjung Pasir;
- Interchange Bandara/Kohod;
- Interchange Surya Bahari;
- Interchange Pakujaya;
- Interchange Mauk; and
- Interchange Rajeg.

Construction is planned to begin in 2019, which consists of 4 stages, and will be fully completed in 2024 and will operate in 2025.

## 2.3. Project Objectives

The objectives of Kamal-Teluknaga-Rajeg Toll Road is to support the development of North Jakarta area and Pantura as a provincial strategic area.

## 3. Business Entity's Scope of Work

Business entity shall responsible to perform the toll road project, including financing, land acquisition, construction, and maintenance.

## 4. Technical Specification

The technical specifications for Kamal-Teluknaga-Rajeg Toll Road are as follows:

No	Facilities	Capacity
1	Length	38.6 km
2	Design Speed	80 Km/hr
3	Number of Lane	2x3 (initial stage)
4	Lane Width	3.50 m
5	Outer Shoulder Width	2.50 m
6	Inner Shoulder Width	1.00 m
7	Median Width (including inner shoulder)	4.50 m

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The schedule of AMDAL study has been explained in the feasibility study document and business plan.

## **6. Land Acquisition and Resettlement Action Plan**

Land acquisition will become the responsibility of GCA.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 1,331.39 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>10.58%</b>
<b>NPV</b>	<b>96.44 Million USD</b>

## **8. Government Support and Guarantee**

The government shall support the project in terms of ease of permit and licences processing and also land acquisition. The project also indicated that it needs government guarantee from Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Denny Firmansyah

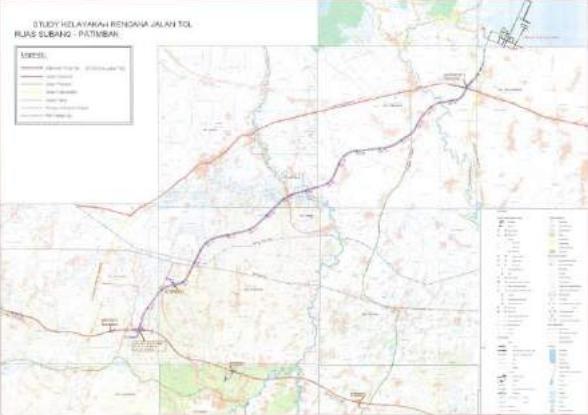
Position : Head of Investment Division

Phone : +6221 - 7258063

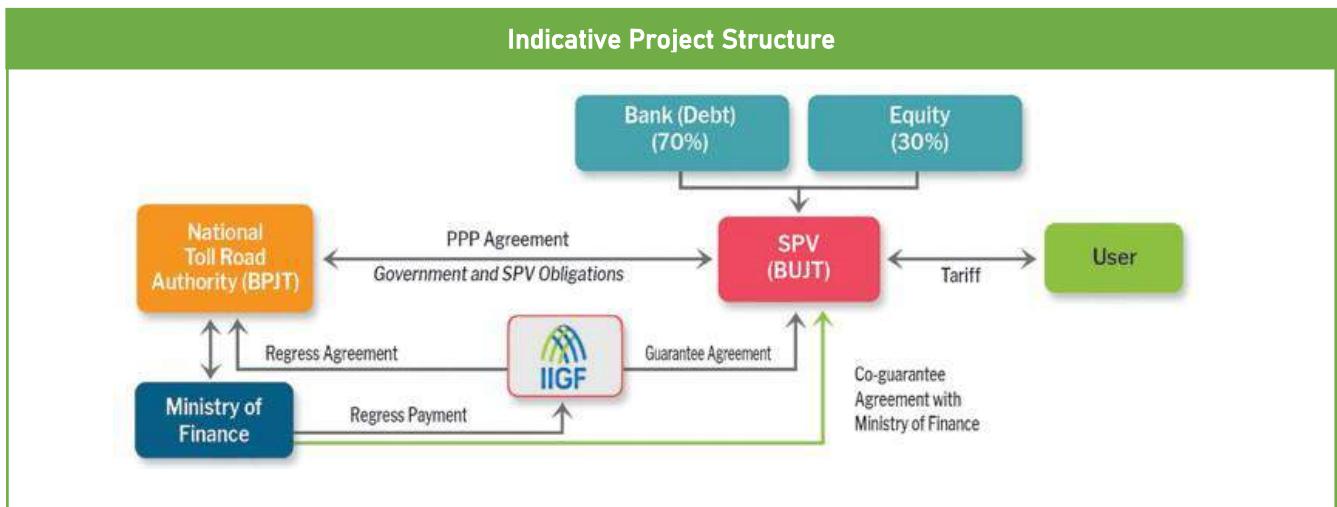
Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## PATIMBAN ACCESS TOLL ROAD

Location : West Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b>  The New Patimban Port development plan requires accessibility that facilitates direct access to and from Patimban Port. The port is planned to be connected with industrial zones, economic zones, urban areas and the surrounding rural areas. Patimban access toll road will connect Patimban Port with Cikopo - Palimanah Toll Road Section. This toll road will have a length of 37.7 km with 2 interchange locations and 1 interchange junction location.</p>
<p><b>Government Contracting Agency:</b>  Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b>  Unsolicited</p> <p><b>Return of Investment:</b>  User Charge</p>	<p><b>Estimated Project Cost:</b> USD 457.37 Million</p> <p><b>Financial Feasibility:</b>  IRR : 10.92%  NPV : USD (55.47) Million*  *) assuming no govt. support for land acquisition</p> <p><b>Estimated Concession Period:</b> 45 years</p>

Indicative Project Schedule					
Pre-Qualification Q2 2020	Request for Proposal Q3 2020	Bid Award Q4 2020	Agreement Signing Q4 2020	Financial Close Q2 2021	Construction Q3 2021
Project Status : Approval Letter Issued					



## Project Digest

Project Title	Patimban Access Toll Road
Government Contracting Agency	Indonesia Toll Road Authority (BPJT)
Implementing Unit	Indonesia Toll Road Authority (BPJT)
Preparation Agency	1. PT Jasa Marga (Persero) 2. PT Surya Semesta Internusa 3. PT Daya Mulia Turangga
Project Cost	USD 457.37 Million
Estimated Concession Period	45 Years
Location	West Java

### 1. Project Picture (Map and/or Illustration of Project)

Proposed Location of Patimban Access Toll Road



Picture 1 – Patimban Access Toll Road Route

### 2. The Opportunity

#### 2.1. Project Background

The construction of Patimban Port replaces the Cilamaya Port project in the Karawang regency which was canceled due to its location intersects with the oil and gas pipeline. The stipulation is contained in Presidential Regulation No. 47 of 2016 concerning the Establishment of Patimban Port in Subang Regency, West Java, as a National Strategic Project (PSN).

To support the operation of Patimban Port, government also plans to integrate the port with the national road network especially through the Pantura road. Therefore, a proposal for the construction of Patimban Access Toll Road is needed for easy access to and from the Port.

## **2.2. Project Description**

Patimban Access Toll Road is a toll road section initiated by a consortium of PT Jasa Marga (Persero), PT Surya Semesta Internusa, PT Daya Mulia Turangga and PT Jasa Sarana. The toll road section is planned to be an alternative for connecting the traffic flow from and to Patimban Port. The planned toll road is located in Subang Regency, West Java Province which is located in the low hills and lowlands.

Furthermore, the plan to construct Patimban Access Toll Road sections will not only provide proper access for vehicles to and from Patimban Port to its hinterland areas, but also provide alternatives for vehicles originating from:

- a. Indramayu Regency - Subang Regency
- b. Indramayu Regency - Purwakarta Regency
- c. Karawang Regency - Indramayu Regency

## **2.3. Project Objectives**

The objectives of Patimban Access Toll Road is to support the operation of Patimban Port by increasing road capacity and connectivity between the port and surrounding hinterland.

## **3. Business Entity's Scope of Work**

The scope of work for the business entity will be build-finance-operate-transfer.

## **4. Technical Specification**

No	Facilities	Capacity
1	Length	37.7 km
2	Design Speed	80 Km/hr
3	Number of Lane	2x3 (initial stage)
4	Lane Width	3.60 m
5	Outer Shoulder Width	3.00 m
6	Inner Shoulder Width	1.50 m
7	Median Width (including inner shoulder)	3.8 m

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The schedule of AMDAL study has been explained in the feasibility study document and business plan. Currently, the EIA Terms of Reference (KA-ANDAL) have been issued by the project preparation agency.

## **6. Land Acquisition and Resettlement Action Plan**

Land Acquisition plan have been made with cost approximately USD 52.4 million. It is proposed to be covered by the GCA.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 457.37 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>10.92%</b>
<b>NPV</b>	<b>USD (55.47) Million</b>

## **8. Government Support and Guarantee**

Government support will be needed to support the land acquisition process. In addition, guarantee from Indonesia Infrastructure Guarantee Fund (IIGF) will also help the project to be more bankable.

## **9. Contact Information**

Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

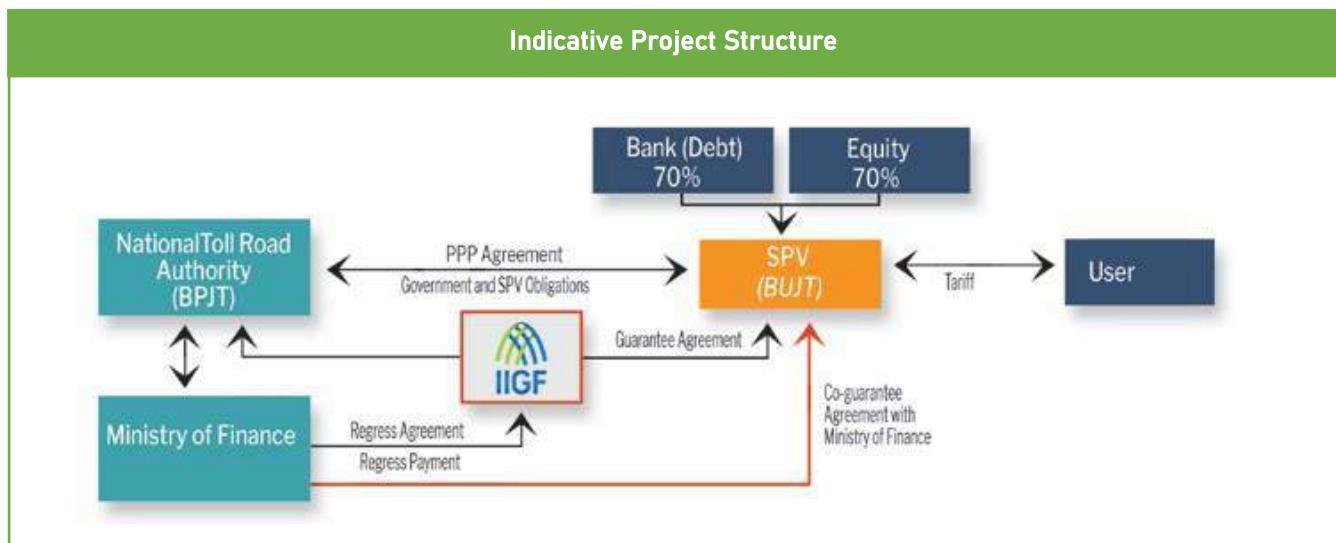
## GEDEBAGE - TASIKMALAYA - CILACAP TOLL ROAD

Location : West Java and Central Java Provinces

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The project is to construct 206.65 km toll road of Gedebage-Tasikmalaya-Cilacap which is expected to overcome traffic problems and encourage economic and regional growth. This toll road is equipped with 1 junction and 10 interchanges.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 4,143.49 Million <b>Financial Feasibility:</b> IRR : 12.00% NPV : USD 139.28 Million <b>Estimated Concession Period:</b> 40 years

Indicative Project Schedule					
Pre-Qualification Q2 2020	Request for Proposal Q3 2020	Bid Award Q4 2020	Agreement Signing Q4 2020	Financial Close Q2 2021	Construction Q3 2021

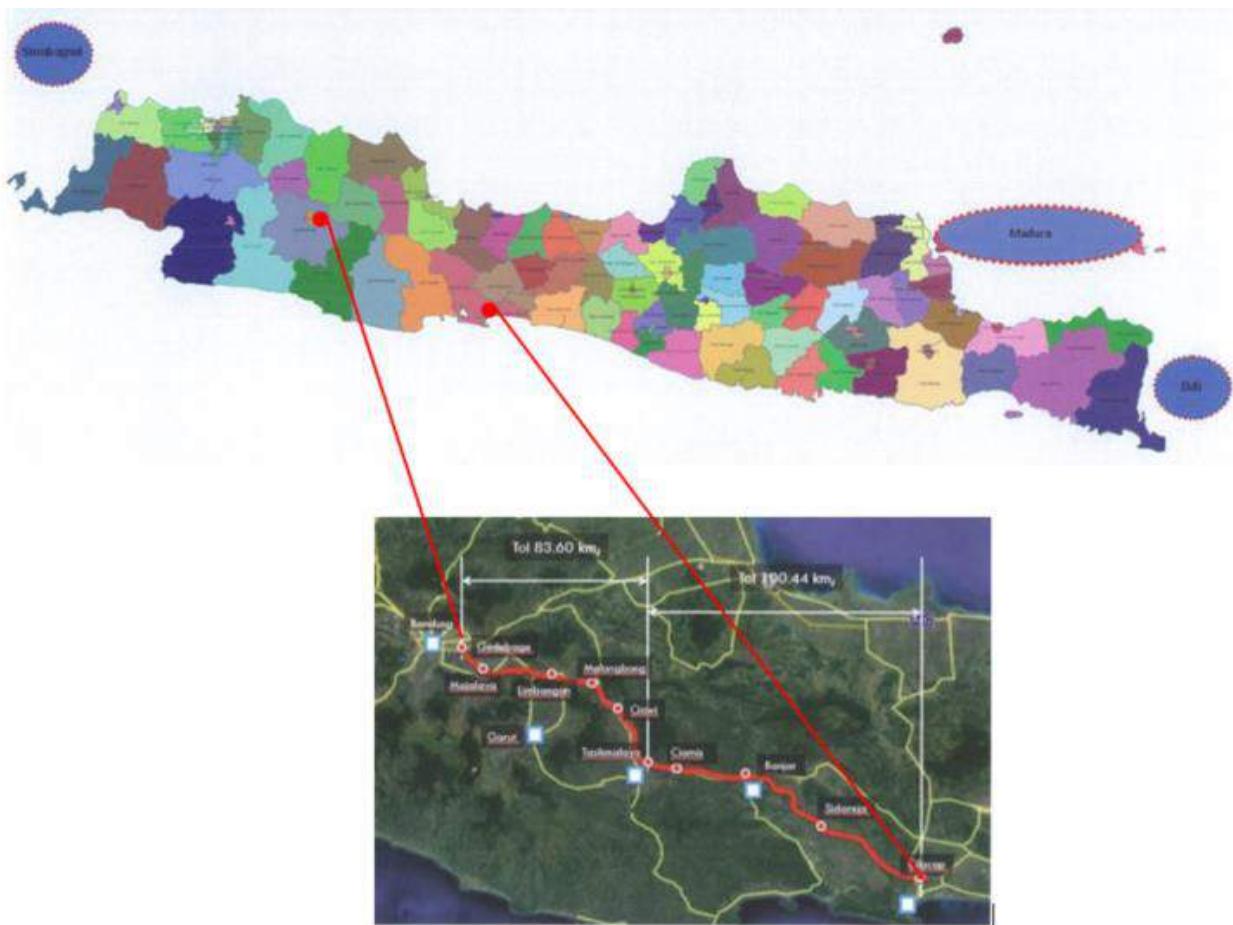
Project Status : Approval Letter Issued



## Project Digest

Project Title	Gedebage – Tasikmalaya – Cilacap Toll Road
Government Contracting Agency	Indonesia Toll Road Authority (BPJT)
Implementing Unit	Indonesia Toll Road Authority (BPJT)
Preparation Agency	PT. Jasa Marga (Persero) PT. Daya Mulia Turangga
Project Cost	USD 4,143.49 Million
Estimated Concession Period	40 Years
Location	West Java and Central Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Gedebage-Tasikmalaya-Cilacap Toll Road Route

### 2. The Opportunity

#### 2.1. Project Background

206.65 km Gedebage-Tasikmalaya-Cilacap Toll Road development plant is part of the 400 km Gedebage-Cilacap-Solo road development plan. High-quality Gedebage-Tasikmalaya-Cilacap toll road development is expected to overcome traffic problems and encourage economic and regional growth.

## 2.2. Project Description

Gedebage-Tasikmalaya-Cilacap Toll Road (206.65 km) are in the administrative area:

- West Java Province: 4 districts, 21 districts, and 112 villages
- Central Java Province: 1 district, 6 sub-districts and 18 villages

Based on analysis, in 2023 the volume of traffic is 16,060 vehicles / day. It is estimated that it will increase to 26,480 vehicles / day in 2025 and reach 108,137 in 2060. This toll road is equipped with 1 junction and 10 interchanges, which will be divided into two stages of construction:

- 1A Section of Gedebage-Tasikmalaya (83,6 km)  
Gedebage junction, Majalaya interchange, Limbangan interchange, Malambong interchange, Ciawi interchange, Rajapolah interchange, and Tasikmalaya interchange.
- 1B Section of Tasikmalaya-Cilacap (100,44 km)  
Ciamis interchange, Sidareja interchange, and Cilacap interchange.

## 2.3. Project Objectives

The objectives of Gedebage-Tasikmalaya-Cilacap are as follows:

- To improve accessibility between regions;
- To increase the development of areas that are passed by toll roads; and
- To support increasing regional economic growth.

## 3. Business Entity's Scope of Work

Business entity shall responsible to perform the toll road project, including financing, construction, operation, and maintenance during the concession period.

## 4. Technical Specification

The technical specifications for Gedebage-Tasikmalaya-Cilacap Toll Road are as follows:

No	Facilities	Capacity
1	Length	206.65 km
2	Design Speed	80-100 Km/hr
3	Number of Lane	
4	Lane Width	3.60 m
5	Outer Shoulder Width	3.00 m
6	Inner Shoulder Width	1.50 m
7	Median Width (including inner shoulder)	5.50 m

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Based on the planned schedule, AMDAL study has been conducted during Q4 of 2018 until Q2 of 2019

## **6. Land Acquisition and Resettlement Action Plan**

Based on the planned schedule, Land Acquisition and Resettlement Action Plan has been done during Q4 of 2017 until Q3 of 2018.

## **7. Project Cost Structure**

Estimated Project Cost		USD 4,143.49 Million
Indicative Debt to Equity Ratio		
- Debt Level		70%
- Equity Level		30%
IRR		12.00%
NPV		139.28 Million USD

## **8. Government Support and Guarantee**

The feasibility study of the project indicates the need for government supports in terms of land acquisition. Government guarantee through the Indonesia Infrastructure Guarantee Fund (IIGF) will also be necessary.

## **9. Contact Information**

Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

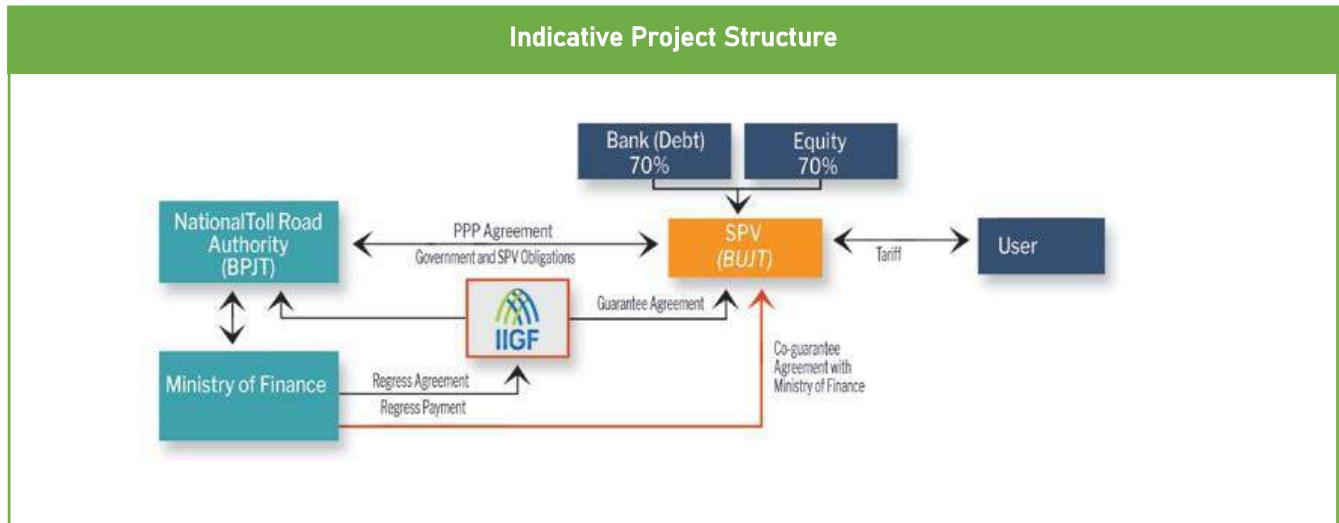
## BOGOR – SERPONG (VIA PARUNG) TOLL ROAD

Location : West Java and Banten Provinces

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The project is to construct ±31.117 km of Bogor-Serpong toll road which is expected to overcome traffic problems and encourage economic and regional growth. This toll road is equipped with five interchanges and two junctions.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 621.73 Million <b>Financial Feasibility:</b> FIRR : 12.38% NPV : USD 78.90 Million <b>Estimated Concession Period:</b> 40 years

Indicative Project Schedule

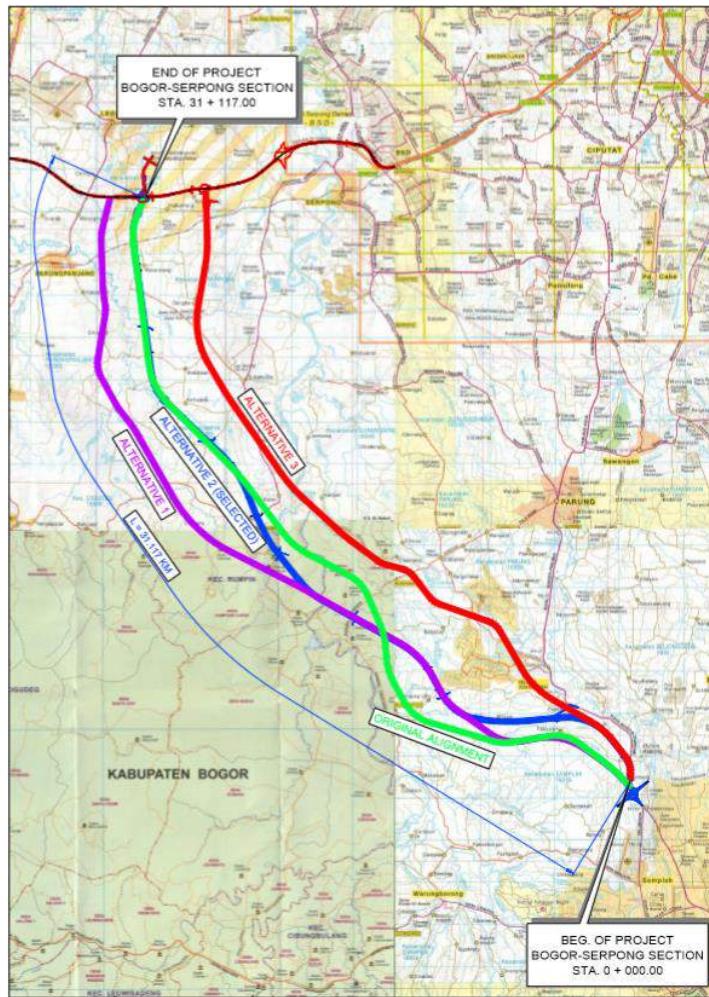

Project Status: Approval Letter Issued



## Project Digest

<b>Project Title</b>	Bogor-Serpong (via Parung) Toll Road
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Implementing Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	PT Pama Persada Nusantara
<b>Project Cost</b>	USD 621.73 Million
<b>Estimated Concession Period</b>	40 Years
<b>Location</b>	West Java and Banten

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Bogor-Serpong (via Parung) Toll Road Route Option

### 2. The Opportunity

#### 2.1. Project Background

Government of Indonesia is accelerating infrastructure development in Indonesia, including toll roads. In the National Toll Road Network Master Plan, especially in the category of unsolicited projects, several toll road plans are expected to be a solution to complete the missing segments in the toll road network. At present the existing Bogor-Serpong road is

overcrowded and has insufficient road width to accommodate the existing traffic. Therefore, a toll road between Bogor and Serpong is expected to be a solution to overcome existing traffic congestion.

## 2.2. Project Description

Bogor-Serpong (via Parung) Toll Road (31.1 km) will connect Selabenda Junction (Bogor) and Serpong Junction (Serpong) through Parung. There are five interchanges and two junctions. The distance between intersections is ± 5 km.

## 2.3. Project Objectives

The objectives of Bogor-Serpong (via Parung) Toll Road is to overcome existing traffic congestion between Bogor and Serpong.

## 3. Business Entity's Scope of Work

Build-Operate-Transfer (BOT)

Business entity shall responsible to perform the toll road project, including financing, construction, operating, and maintenance.

## 4. Technical Specification

Planning standards use all regulations and specifications that apply in Indonesia, such as regulations issued by The Directorate General of Highways, SNI, and other regulation (AASHTO, Japanese code and specification, British Standard, etc). The design speed of Bogor-Serpong (via Parung) Toll Road is 100 km/hour and the technical specifications as follows:

No	Facilities	Capacity
1	Length	±31.117 km
2	Design Speed	100 Km/hr
3	Number of Lanes per Direction	3
4	Lane Width	3.60 m
5	Shoulder Width	
	Outside	3.00 m
	Median side	1.50 m
6	Median Width	2.50 m

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The feasibility study of the project indicates the need for Environmental Impact Assessment (EIA/AMDAL) to be prepared later.

## 6. Land Acquisition and Resettlement Action Plan

The study indicated Land Acquisition and Resettlement Action Plan needs for land acquisition of 227.95 ha.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 621.73 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>FIRR</b>	<b>12.38%</b>
<b>NPV</b>	<b>USD 78.9 Million</b>

## **8. Government Support and Guarantee**

The feasibility study of the project indicates the need for government supports in terms of land acquisition. Government guarantee also needed from Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Denny Firmansyah

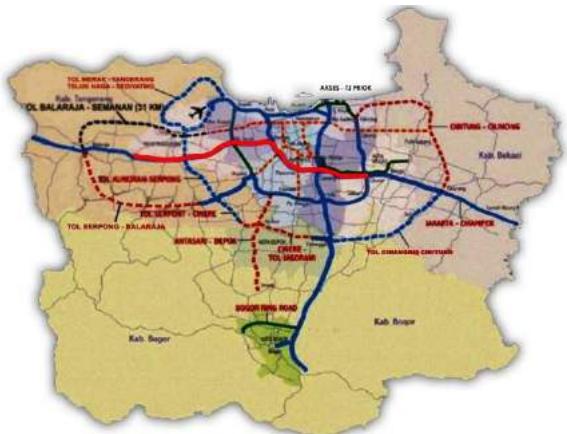
Position : Head of Investment Division

Phone : +6221 - 7258063

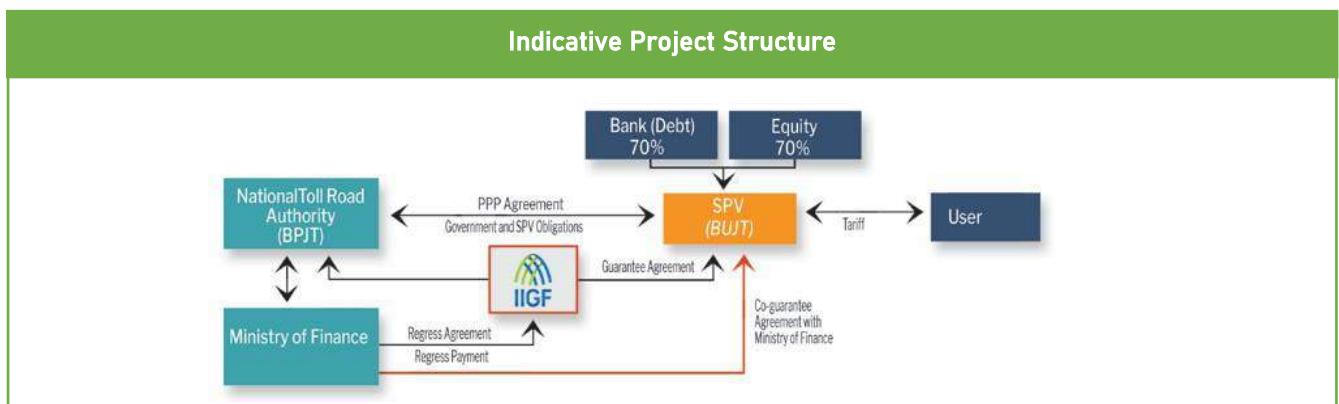
Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## CIKUNIR-KARAWACI INNER CITY ELEVATED TOLL ROAD

Location : DKI Jakarta and Banten Provinces

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The project is to construct ±40 km of Cikunir-Tomang-Karawaci Inner City Elevated toll road with PPP scheme. The proposed toll road plan will be above the existing toll road section, which the start point located in Cikunir (at the junction between JORR and the Jakarta-Cikampek toll road) and the end point located after the Alam Sutera intersection. Business entity shall responsible to perform the toll road project with BOT scheme.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)	<b>Estimated Project Cost:</b> USD 1,815.57 Million
<b>Type of PPP:</b> Unsolicited	<b>Financial Feasibility:</b> FIRR : 12.07% NPV : USD 223.10 Million
<b>Return of Investment:</b> User Charge	<b>Estimated Concession Period:</b> 45 years

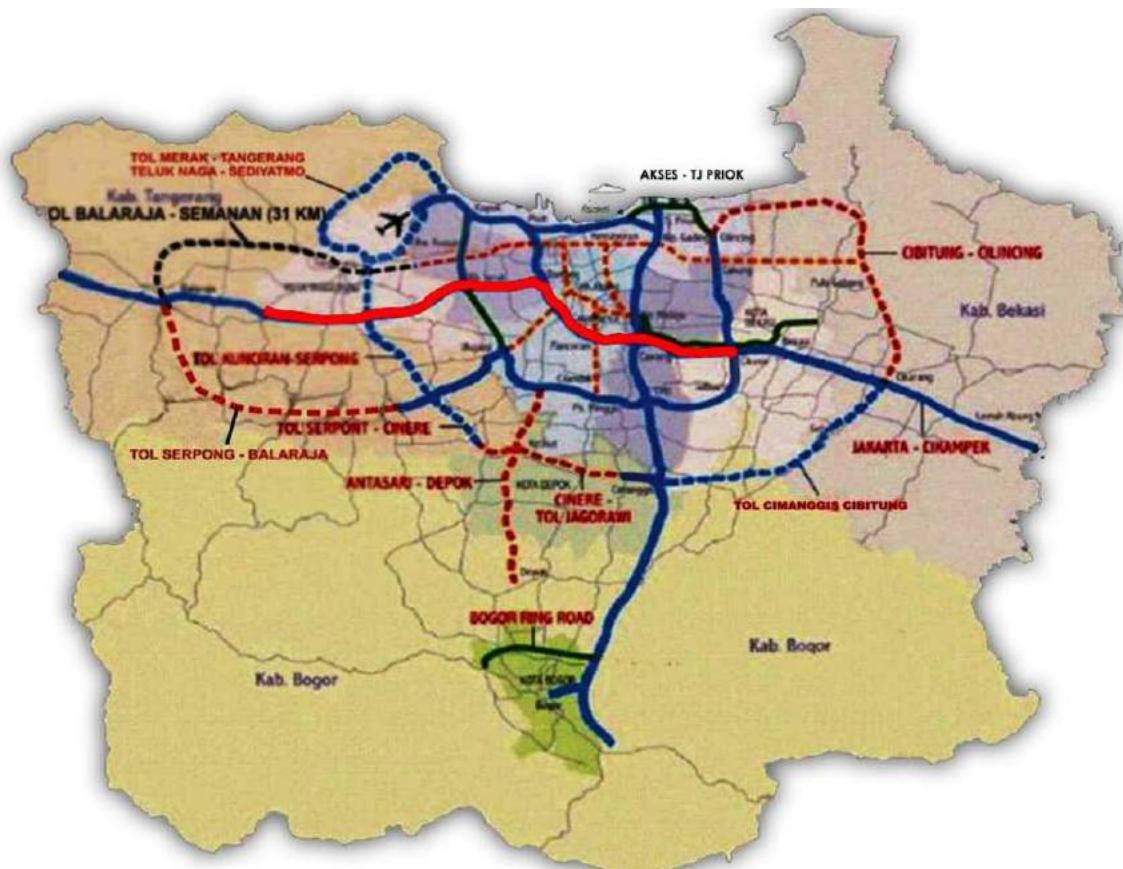
Indicative Project Schedule					
Pre-Qualification Q2 2020	Request for Proposal Q3 2020	Bid Award Q4 2020	Agreement Signing Q4 2020	Financial Close Q2 2021	Construction Q3 2021
Project Status: Approval Letter Issued					



## Project Digest

<b>Project Title</b>	Cikunir-Karawaci Inner City Elevated Toll Road
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Implementing Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	PT Earth Investment Indonesia - PT Lintas Indonesia Sejahtera
<b>Project Cost</b>	USD 1,815.57 Million
<b>Estimated Concession Period</b>	45 Years
<b>Location</b>	DKI Jakarta and Banten

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Jabodetabek Toll Road Network

### 2. The Opportunity

#### 2.1. Project Background

The development of Jabodetabek Area (Jakarta, Bogor, Tangerang, Bekasi) has grown rapidly, especially in the east-west corridor, starting from Bekasi District, Bekasi City, DKI Jakarta, Tangerang City and Tangerang District, which require a high level of accessibility. At present the traffic flow on the Jakarta-Tangerang Toll Road, Jakarta Inner Ring Road and Jakarta Outer Ring Road is very congested (already saturated) with V / C Ratio already greater than 0.8. In

addition, the construction of the Jakarta-Cikampek Elevated Toll Road is currently underway, one of which ends in Cikunir.

Cikunir-Karawaci Inner City Elevated Toll Road Section will be an additional alternative to the existing Toll Road section in Jakarta. This toll road will be above the existing Toll Road, therefore it can improve the performance of the road network in Jabodetabek and it can overcome congestion problem.

## 2.2. Project Description

Cikunir-Karawaci Toll Road Section ( $\pm$  40 km) is located in Banten Province (Tangerang City and Tangerang District), DKI Jakarta Province, and Banten Province (Bekasi City). The proposed toll road plan will be above the existing toll road section. The starting point of the project, located in Cikunir (at the junction between JORR and the Jakarta-Cikampek toll road), which is the beginning of the Jakarta - Cikampek elevated toll road. The end of the project is located after the Alam Sutera intersection. Location of main on/off ramp points as follows:

- East Pondok Gede;
- Cawang Junction;
- Pancoran;
- Semanggi;
- Palmerah;
- Tomang;
- Meruya; and
- Kembangan.

## 2.3. Project Objectives

The objectives of Cikunir-Karawaci Inner City Elevated Toll Road is to improve the performance of the road network in Jabodetabek and to overcome traffic congestion in the western area of Jakarta.

## 3. Business Entity's Scope of Work

Build-Operate-Transfer (BOT)

Business entity shall responsible to perform the toll road project, including financing, construction, operating, and maintenance.

## 4. Technical Specification

Planning standards use all regulations and specifications that apply in Indonesia, such as regulations issued by The Directorate General of Highways, SNI, and other regulation.

No	Facilities	Capacity
1	Length	$\pm$ 40km
2	Lane number	2 + 2
3	Design Speed	
	Main road	80 Km/hr
	Ramp (toll-to-toll)	40-60 Km/hr

No	Facilities	Capacity
	Ramp (toll-to-non toll)	40-60 Km/hr
4	Lane Width	3.50 m
5	Outer Shoulder Width	2.00 m
6	Inner Shoulder Width	0.50 m
7	Median Width	
	Median concrete barrier	0.80 m
	Median width including inner shoulder	1.80 m

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The feasibility study of the project indicates the need for Environmental Impact Assessment (EIA/AMDAL) to be prepared later.

## 6. Land Acquisition and Resettlement Action Plan

The study indicated Land Acquisition and Resettlement Action Plan needs for land acquisition of 82,204 m<sup>2</sup>.

## 7. Project Cost Structure

Estimated Project Cost	USD 1,815.57 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
FIRR	12,07%
NPV	USD 223.10 Million

## 8. Government Support and Guarantee

The government support is identified for land acquisition. The government guarantee is needed from Indonesia Infrastructure Guarantee Fund (IIGF)

## 9. Contact Information

Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

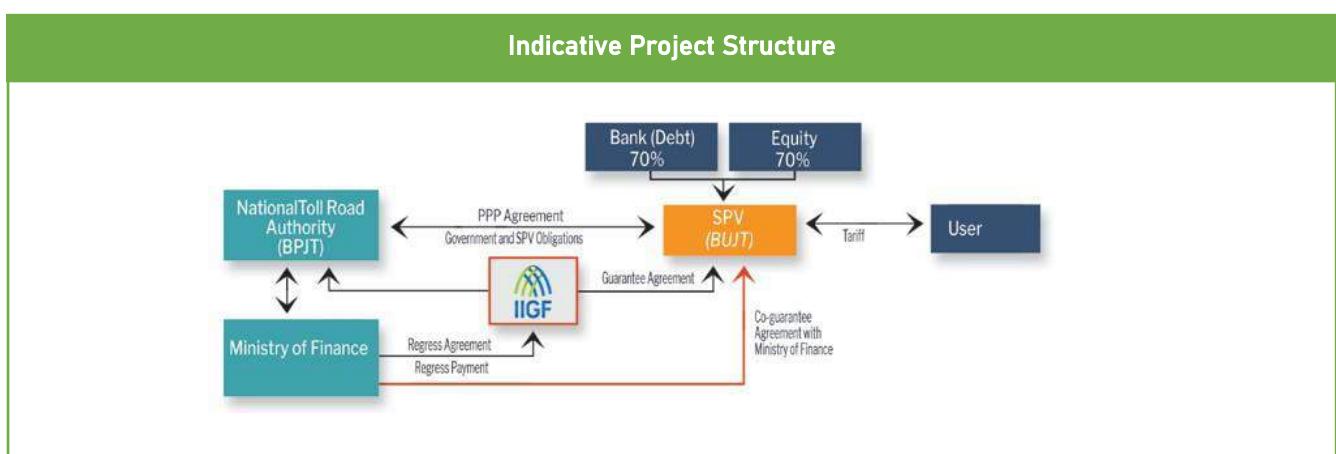
Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## CIKUNIR-ULUJAMI JAKARTA OUTER RING ROAD (JORR) ELEVATED TOLL ROAD

Location : DKI Jakarta and West Java Provinces

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The project is to construct ± 21.5 km of The Cikunir-Ulujamai Jakarta Outer Ring Road (JORR) Elevated Toll Road with PPP scheme. The starting point located in after Ulujamai Junction and the end point is before Jati Asih Junction.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)	<b>Estimated Project Cost:</b> USD 1,541 Million
<b>Type of PPP:</b> Unsolicited	<b>Financial Feasibility:</b> FIRR : 12.49 % NPV : USD 536.27 Million
<b>Return of Investment:</b> User Charge	<b>Estimated Concession Period:</b> 45 years

Indicative Project Schedule					
Pre-Qualification Q2 2020	Request for Proposal Q3 2020	Bid Award Q4 2020	Agreement Signing Q4 2020	Financial Close Q2 2021	Construction Q3 2021
Project Status : Approval Letter Issued					



## Project Digest

<b>Project Title</b>	JORR (Section Cikunir – Ulujami) Elevated Toll Road
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Implementing Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	PT. Marga Metro Nusantara (MMN), PT. Acset indonusa Tbk (ACSET), and PT Adhi Karya (Persero) TBK
<b>Project Cost</b>	1,541 Million USD
<b>Estimated Concession Period</b>	45 years
<b>Location</b>	DKI Jakarta and West Java Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Cikunir-Ulujamai Toll Road Route

### 2. The Opportunity

#### 2.1. Project Background

The role of the toll road network is important for Indonesia's economic development and for the mobility of Jabodetabek (Jakarta, Bogor, Tangerang, Bekasi) residents. The Jakarta Outer Ring Road (JORR) and Jakarta Inner Ring Road (JIUT) which play a very important role to toll road network in Jakarta, currently overcapacity and have serious traffic congestion problem. To overcome these problems, JORR elevated toll road development is planned with PPP scheme.

#### 2.2. Project Description

JORR elevated toll road ( $\pm 21.5$  km) is located in DKI Jakarta (South Jakarta dan East Jakarta) and West Java (Bekasi) Province. The beginning point of this elevated toll road is after Ulujami Junction of JORR (near Veteran toll booth) and the end point is before Jati Asih Junction of JORR.

#### 2.3. Project Objectives

The objectives of Cikunir-Ulujamai JORR Elevated Toll Road are as follows:

- to overcome the current traffic jams at JORR and to improve the road service level;
- to reduce the average travel time of JORR users by increasing the capacity;
- to provide alternative routes for "continuous long-distance travel" and "traffic to the airport" (Halim Airport); and
- to strengthen the toll road network in Jabodetabek area.

### **3. Business Entity's Scope of Work**

Build-Operate-Transfer (BOT)

Business entity shall responsible to perform the toll road project, including financing, construction, operating, and maintenance.

### **4. Technical Specification**

Planning standards use all regulations and specifications that apply in Indonesia, such as regulations issued by The Directorate General of Highways, SNI, and other regulation.

No	Facilities	Capacity
1	Length	± 21.5 km
2	Lane number	2 x 2 lanes
3	Design Speed	
	Main road	80 Km/hr
	Ramp	40-60 Km/hr
	Terminal Ramp	40-60 Km/hr
4	Width of the traffic lane	2 x 7 m (@3.5 m)
5	Shoulder Width with pavement	2,0 m
6	Shoulder Width without pavement	1.0 m (0.5 m for structure)
7	Median Width	1.0 m
8	Median path without borders	0.5 m
9	Slope	2.0%
10	Vertical clearance height	5.1 m

### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The study of the project has identified the Framework of Environmental Impact Assessment (EIA/KA-ANDAL) needs.

### **6. Land Acquisition and Resettlement Action Plan**

The total land requirement for this project is 43.8 ha including government-owned land that does not require land acquisition (41.8 ha) and land that requires land acquisition (2,04 ha). The study indicates the implementation of land acquisition will be carried out by the consortium.

### **7. Project Cost Structure**

Estimated Project Cost	USD 1,541 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
FIRR	12.49%
NPV	USD 536.27 Million

## **8. Government Support and Guarantee**

The government guarantee is needed from Indonesia Infrastructure Guarantee Fund.

## **9. Contact Information**

Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

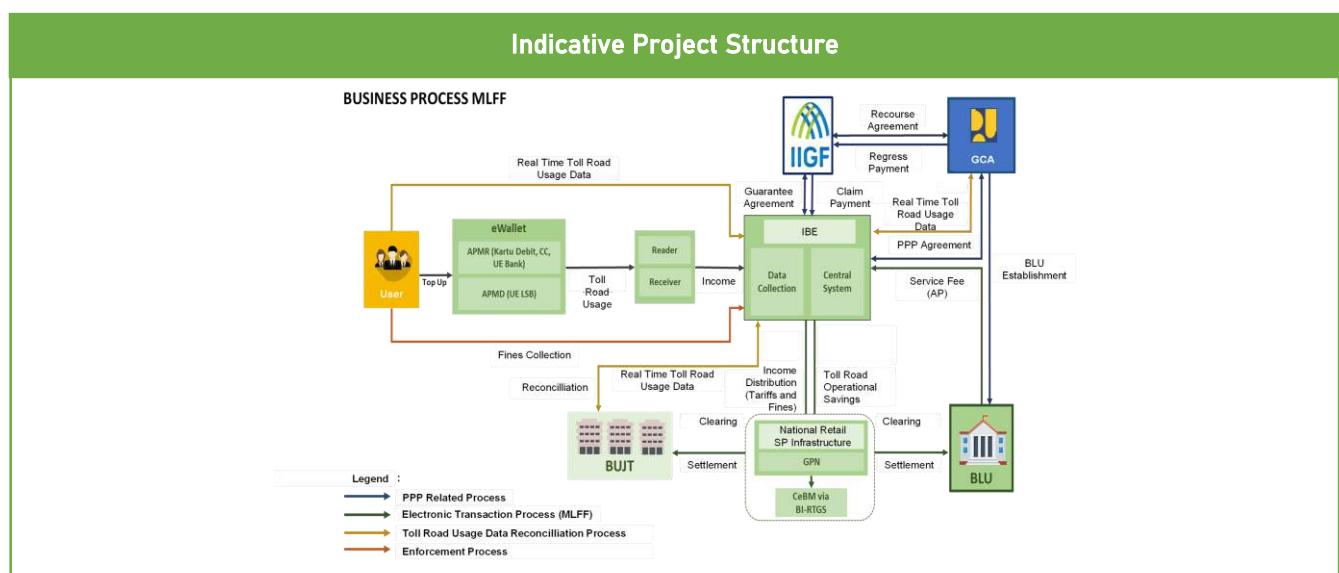
Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## MULTI LANE FREE FLOW (MLFF) TOLL ROAD TRANSACTION SYSTEM

Location : National

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b>            The project is to establish new toll collection system, which replaces the existing manual toll collection method. The project scope is Design, Build, Finance, Operate, and Transfer (DBFOT). The proposed system has the technical requirement of MLFF GNSS toll collection.</p>
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> Availability Payment	<b>Estimated Project Cost:</b> USD 300.72 Million  <b>Financial Feasibility:</b> FIRR : 12.50% NPV : USD 0* *) assuming IRR = MARR
	<b>Estimated Concession Period:</b> 10 years

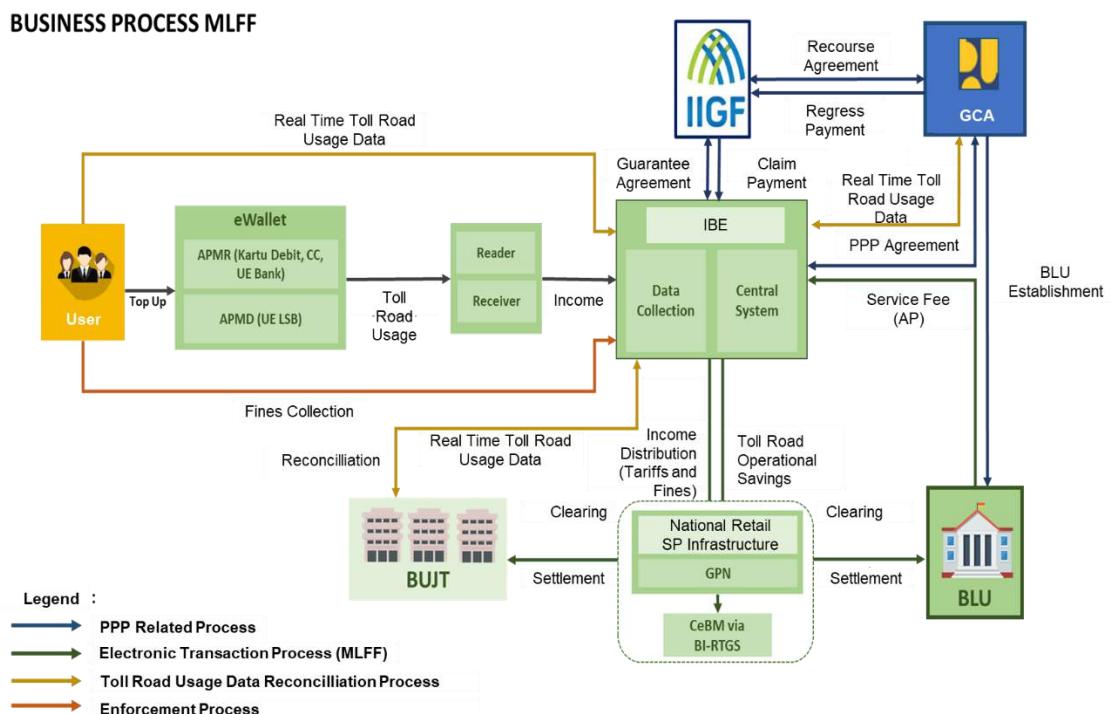
Indicative Project Schedule					
Pre-Qualification Q3 2020	Request for Proposal Q4 2020	Bid Award Q2 2021	Agreement Signing Q3 2021	Financial Close Q1 2022	Construction Q1 2022
<b>Project Status:</b> Approval Letter Issued					



## Project Digest

Project Title		Multilane Free Flow (MLFF) Toll Road Transaction System
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)	
<b>Implementing Agency</b>	Indonesia Toll Road Authority (BPJT)	
<b>Preparation Agency</b>	Roatex Ltd., in co-operation with NUSZ and with capital financing from MFB	
<b>Project Cost</b>	USD 300.72 Million	
<b>Estimated Concession Period</b>	10 Years	
<b>Location</b>	National	

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Business Process of MLFF System

### 2. The Opportunity

#### 2.1. Project Background

The time spent at highway toll plazas causes significant losses to the GDP of Indonesia. The Multilane Free Flow (MLFF) Toll Transaction System is expected to overcome the time loss caused by delays at toll plazas with PPP scheme of 10 years concessions period. The new Multilane Free Flow (MLFF) system will be much easier to use, every customer system function will be available online, creates a non-stopping road usage experience. The system will have a high social utility (eg. Less traffic congestions) therefore the users can feel and see the need of this new system.

## 2.2. Project Description

The Multilane Free Flow (MLFF) Toll Transaction System is to establish new toll collection system, which replaces the existing manual toll collection method. The project scope is Design, Build, Finance, Operate, and Transfer (DBFOT). Global Navigation Satellite System (GNSS) which uses GSM technology for communication, is purposed to be used in Indonesia for tolling purposes as the foundation to the implementation of Cooperative Intelligent Transportation System (C-ITS) best practices. The system covers the entire toll road network through the country with total length of network covered of 6,075 km (untuk end of 2025). It will be operated in two phases, i.e. Single Lane Free Flow (SLFF) Radio-frequency Identification (RFID) and MLFF GNSS.

## 2.3. Project Objectives

The objectives of The Multilane Free Flow (MLFF) Toll Transaction System is to overcome the time loss caused by delays at toll plazas.

## 3. Business Entity's Scope of Work

Design, Build, Finance, Operate, and Transfer (DBFOT).

Business entity shall responsible to perform the project, including designing, construction, financing, and operation.

## 4. Technical Specification

The proposed system has the technical requirements of MLFF GNSS toll collection. The technical specifications as follows:

No	Service Item	Important Key Performance Indicators (KPIs)	Expected Level
<b>Toll Collection related KPIs</b>			
1	CTSP IT System Operation	Availability	99.90%
		Operating time	7 x 24 hours
		Data capture efficiency	99.90%
		Interoperability	Able to run on open toll collection system
		Check system conditions	Real time monitoring via application (remote monitoring)
2	Toll Collection	Vehicle detection rate	99.5%
		The success rate of the transaction	99.3%
3	Balance Management	Balance management accuracy	99.8%
		Time needed for balance changes	On-line

No	Service Item	Important Key Performance Indicators (KPIs)	Expected Level
4	Settlement with beneficiaries of collected toll	Delivery of settlement data BLU and Toll Road Operator	Daily on-line
		The success rate of settlement into Toll Road Operator accounts is according to the portion each Toll Road Operator.	99.90%
		Delegation of settlement funds to Toll Road Operator accounts	1 x 24 hours
		Settlement	Daily banking days
5	Monitoring	Monitoring tools	On-line reporting
6	Network Extension	Implementing toll collection on any new section in MLFF system	Max 5 working days
7	Tariff Management	Flexibility to change tariffs	User-friendly
		Time needed for change tariffs	Daily on-line
<b>Enforcement related KPIs</b>			
1	Vehicle Identification of Road Side Data Collection System	Availability	99.0%
		License plate number recognition efficiency	98.0%
		Vehicle category recognition efficiency	98.0%
		Evidential records availability	98.0%
2	Classification of Road Usage (legal/violator)	Time needed for differential making	On-line
		Send transaction violation reports (blacklist)	On-line
		Number of inaccurate determinations	0.01%
3	Sanctioning	Sanctioning efficiency	99%
4	Network Extension	Implementing toll enforcement on any new section in MLFF system	Max 5 working days
<b>Customer Service related KPIs</b>			
1	Online customer service	Available services	7 x 24 hours
2	Call Centre	Availability	7 x 24 hours

No	Service Item	Important Key Performance Indicators (KPIs)	Expected Level
		Available services	7 x 24 hours
		Managed calls	98.0%
		Lost Calls	2.0%
		Waiting time	Answered by IVR within 5 seconds of the call being received at the Client Centre
3	Web site	Availability	7 x 24 hours
		Available services	99.0%

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The impacted environmental components in establishing toll road infrastructure is relatively small. Considering the existing regulation of Ministry of Environmental and Forestry Number 23 Year 2018 concerning Amendment to Environmental Permits, no specific Environmental Impact Assessment (EIA/AMDAL) need to be performed for implementation of MLFF Toll Transaction System project.

## 6. Land Acquisition and Resettlement Action Plan

The study did not indicate any Land Acquisition is needed for the project.

## 7. Project Cost Structure

Estimated Project Cost	USD 300.72 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
FIRR	12,50%
NPV	USD 0

## 8. Government Support and Guarantee

The suggested potential support for Multilane Free Flow (MLFF) Toll Transaction System as follows:

- Amendments of TRO contracts need to be managed by ITRA or the ministry;
- The availability of the guarantee fund in case of lower than 12.5% IRR; and
- Fasten approval from the central for Initiative Business Entity to manage and handle virtual money.

The government guarantee can be through the Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Ranto P. Rajagukguk ST. MT

Position : Head of Operational and Maintenance Division

Phone : +6221 - 7258063

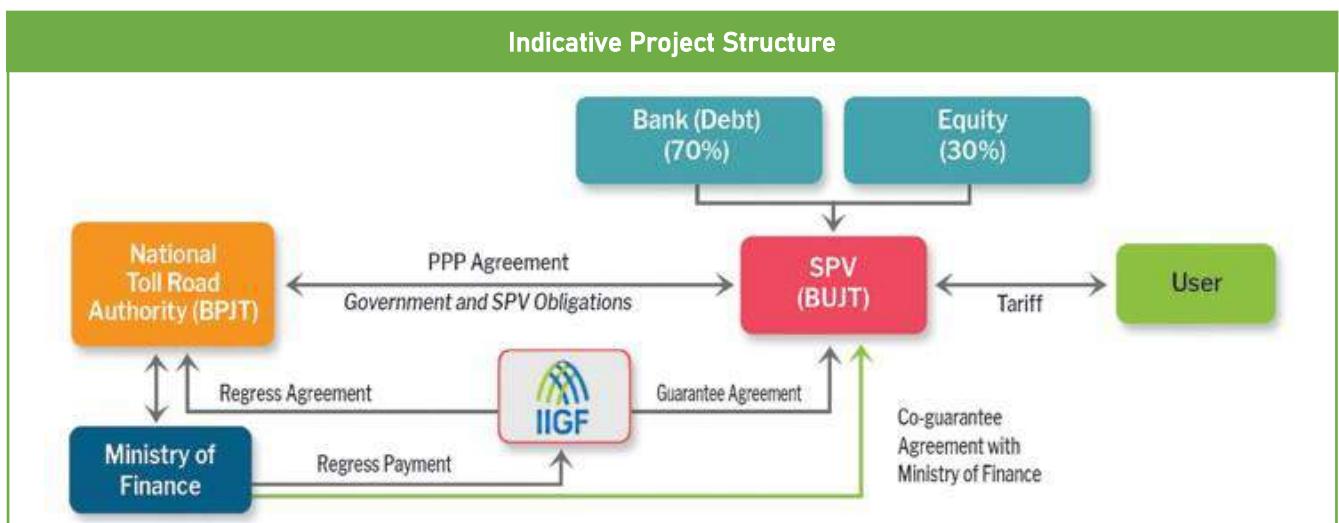
Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## SEMARANG HARBOUR TOLL ROAD

Location : Central Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b>            The project is to construct ± 20.86 km of Semarang Harbour toll road which connects the Semarang - Batang Toll Road (SBTR) and Semarang-Demak Toll Road to complete the Ring Road around the City of Semarang. This toll road will be integrated with the sea wall and retention pond in the city of Semarang. The return of investment of the sea wall comes from the development of the reclamation area given to the winner of the auction while the retention pond will be financed by government of Semarang city.</p>
<p><b>Government Contracting Agency:</b>            Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b>            Unsolicited</p> <p><b>Return of Investment:</b>            User Charge</p>	<p><b>Estimated Project Cost:</b> USD 836.81 Million</p> <p><b>Financial Feasibility:</b>            IRR : 11.10%            NPV : USD 12.20 Million</p> <p><b>Estimated Concession Period:</b> 50 years</p>

Indicative Project Schedule					
Pre-Qualification Q3 2020	Request for Proposal Q4 2020	Bid Award Q1 2021	Agreement Signing Q1 2021	Financial Close Q2 2021	Construction Q4 2021
Project Status : Approval Letter Issued					



## Project Digest

Project Title	Semarang Harbour Toll Road
Government Contracting Agency	Indonesia Toll Road Authority (BPJT)
Implementing Unit	Indonesia Toll Road Authority (BPJT)
Preparation Agency	The Consortium of PT. Sumber Mitra Jaya and PT. Waskita Toll Road
Project Cost	USD 836.81 Million
Estimated Concession Period	50 years
Location	Central Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Project Maps

### 2. The Opportunity

#### 2.1. Project Background

Economic growth in the Semarang area had an impact on regional development and travel demand growth in recent years. The road network in the Semarang region also shows a declining performance. In addition, the existence of the Trans Java toll road will also increase the traffic load on the road network significantly. This condition indicates the need to develop a new road network to respond to the high growth in travel demand in the Semarang and surrounding areas. Therefore, the Semarang Harbour Toll Road Development Plan has been prepared. This toll road is planned to be circular on the northern side of Semarang City, from Kaliwungu, Ahmad Yani Airport, and Tanjung Mas Port.

#### 2.2. Project Description

Semarang Harbour Toll Road will connect the Semarang - Batang Toll Road (SBTR) to complete the Ring Road around the City of Semarang. The Semarang Harbour Toll Road is projected to benefit the Semarang City and the surrounding area, because this toll road network is connected to several vital areas around Semarang, especially Kendal Industrial Area (KIK),

Ahmad Yani Airport, Tanjung Mas Port, and Semarang Toll Road Section A, B, C. This toll road will also be integrated with the sea wall and retention pond in the city of Semarang.

The Semarang Harbour Toll Road Section starts from Kaliwungu Area of Kendal Regency which connecting the Semarang Batang Toll Road and the Semarang Harbour Toll Road, then ends at Kaligawe of Semarang which connecting Semarang Demak Toll Road and Semarang Harbour Toll Road.

The length of the Semarang Harbour Toll Road is 20.86 km which is divided into:

- Section 1: JC Kaliwungu- IC KIK (4.05 km)
- Section 2: IC KIK – On Off Airport (9.80 km)
- Section 3: On Off Airport section – On Off Tanjung Mas 1 (3.75 km)
- Section 4: On Off Tanjung Mas 1 - JC Kaligawe (3.26 km)

This project is proposed to use a PPP scheme with user charge. The initial operating tariff proposed is Rp. 1,700 / km (Group 1) with a closed operating system. The return of investment of the sea wall comes from the development of the reclamation area given to the tender winner while the retention pond will be financed by Government of Semarang City

### 2.3. Project Objectives

- The objectives of Semarang Harbour Toll Road is to overcome the current traffic jams in the road network in the Semarang region
- Integrated with sea wall as a solution of abrasion in the north coast region
- Provision of raw water for the Semarang City

## 3. Business Entity's Scope of Work

The scope of work for the business entity will be Design-Build-Finance-Operate – Maintain and Transfer (D-B-F-O-M-T).

## 4. Technical Specification

A business entity is required to meet the minimum toll road service standard as stipulated in Minister of Public Works Regulation No. 16/PRT/M /2014 concerning Toll Road Minimum Service Standards. Minimum toll service standards include the following service substances: toll road conditions, average travel speed, accessibility, mobility, safety, rescue unit and service assistance, environment, and rest area and rest area and service.

The technical specifications for toll roads will refer to all regulations and specifications apply in Indonesia, such as regulations and codes issued by the Directorate General of Highways, Indonesian National Standard (SNI), and other regulations. Some technical specifications for the main road including:

No	Facilities	Capacity
1	Length	20.86 km
2	Design Speed	80 Km/hr
3	Number of Lane	2 x2 (initial stage) 3 x3 (final stage)

No	Facilities	Capacity
4	Lane Width	3.6 m
5	Outside Shoulder Width	3.0 m
6	Inner side Shoulder Width	1.5 m
7	Design Speed	80 Km/hr
8	Median Width (include inner side shoulder)	5.5 m
9	Cross slope	2%
10	Shoulder slope	2%

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

This study indicates the need for Environmental Impact Assessment (EIA/AMDAL). Based on the plan schedule, the preparation of EIA study conducted in 2019.

## 6. Land Acquisition and Resettlement Action Plan

For the unsolicited toll road project, the land acquisition and resettlement action financed by Business Entity which will be calculated as part of investment. Based on the plan schedule, the preparation of Land Acquisition and Resettlement Action Plan conducted in 2018-2019.

## 7. Project Cost Structure

Estimated Project Cost	USD 836.81 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
IRR	11.10 %
NPV	USD 12.20 Million

## 8. Government Support and Guarantee

This project does not require Government Support either in the form of fiscal contributions or other forms. This project will be proposed to obtain Government Guarantee by Indonesia Infrastructure Guarantee Fund (IIGF).

## 9. Contact Information

Name : Denny Firmansyah

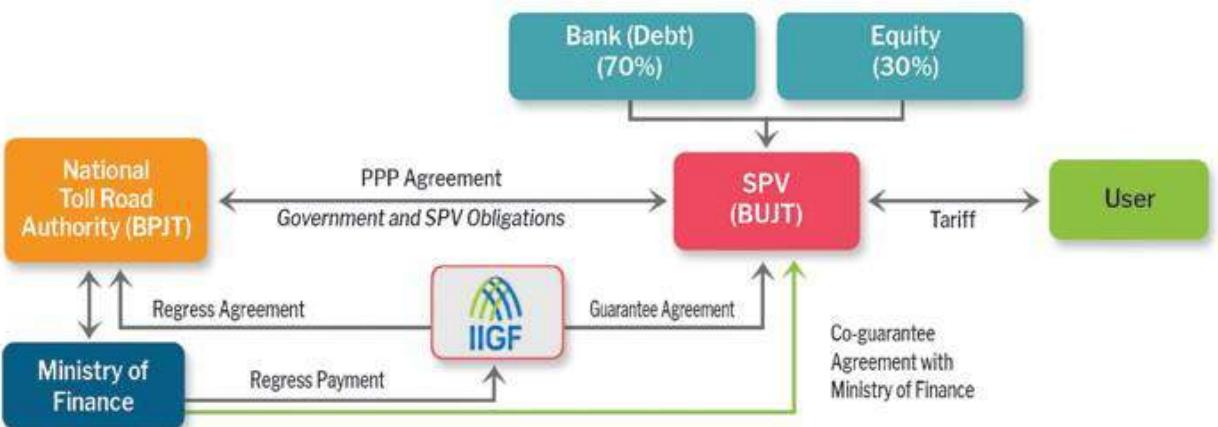
Position : Head of Investment Division

Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## SOUTH SENTUL – WEST KARAWANG TOLL ROAD

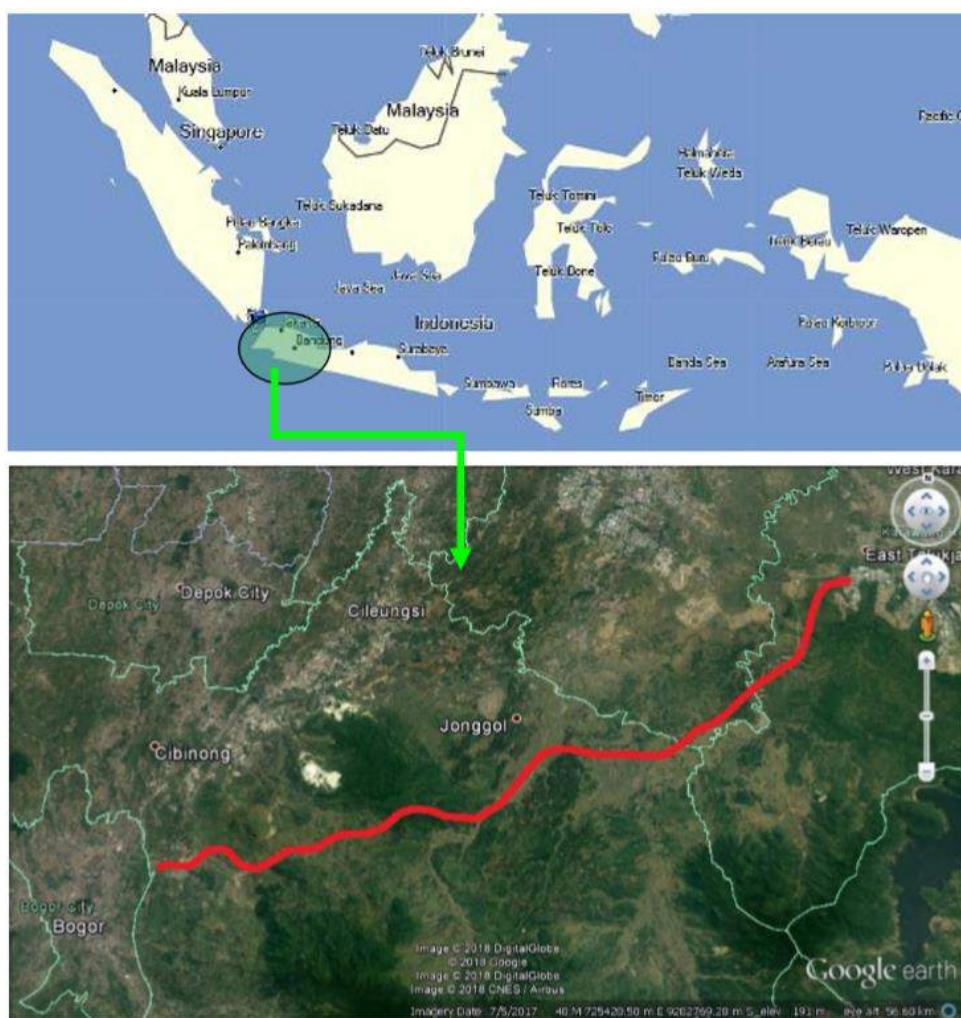
Location : West Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b> The project is to construct ± 61.5 km of The South Sentul – West Karawang Toll Road which connecting Sentul Junction and Karawang Junction. At the South Sentul – West Karawang Toll Road there are 3 junctions that connect to the Bogor Ring Road Toll Road, the Jakarta – South Cikampek Toll Road, and the existing Jakarta – Cikampek Toll Road.</p> <p><b>Estimated Project Cost:</b> USD 1,067.70 Million</p>
<p><b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b> Unsolicited</p> <p><b>Return of Investment:</b> User Charge</p>	<p><b>Financial Feasibility:</b> IRR : 12.08% NPV : USD 104.79 Million</p> <p><b>Estimated Concession Period:</b> 40 years</p>
<p><b>Indicative Project Schedule</b></p> 	
<p>Project Status: Approval Letter Issued</p>	
<p><b>Indicative Project Structure</b></p> 	

## Project Digest

<b>Project Title</b>	<b>South Sentul – West Karawang Toll Road</b>
<b>Government Contracting Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Implementing Unit</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	PT. Pama Persada Nusantara
<b>Project Cost</b>	USD 1,067.70 Million
<b>Estimated Concession Period</b>	40 years
<b>Location</b>	West Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Project Location

### 2. The Opportunity

#### 2.1. Project Background

Infrastructure developments are one of the keys to increasing Indonesia's economic growth. Currently, Government of Indonesia is accelerating the infrastructure development in various sectors, including the toll roads. To overcome the limitations of the budget, the government implemented various policies to attract the private sector to invest in the toll road sector.

The government plans to construct 5,405 km of toll roads as part of the road network system. A total of 820 km of toll roads is operational and 1,016 km have Toll Road Concession Agreements (*Perjanjian Pengusahaan Jalan Tol*/PPJT). Therefore, the initiative of Business Entities will be very helpful to accelerate the construction of toll roads. Thus, the target of completing 1,000 km of new toll roads planned by the Government in the next five years can be realized.

At present, the existing Sentul - Karawang road has insufficient road width to accommodate the existing traffic. Especially in the area around Karawang there are many industrial areas. The Sentul-Karawang Toll Roads Construction Plan is expected to be a solution to overcome the existing traffic demand.

## 2.2. Project Description

The South Sentul – West Karawang Toll Road construction project crosses 3 (three) regency areas, i.e. Bogor Regency, Bekasi Regency, and Karawang Regency. The total length of the South Sentul – West Karawang Toll Road is 61.5 kilometers, connecting Sentul Junction and Karawang Junction. At the South Sentul – Karawang Toll Road there are 3 (three) junctions that connect to the Bogor Ring Road Toll Road, the Jakarta – South Cikampek Toll Road, and the existing Jakarta – Cikampek Toll Road. Overall, there are 5 interchanges on this toll road section. The average speed on the non-toll road is 21.10 km/hour. The design speed of the toll road is 100 km/hour.

## 2.3. Project Objectives

The objectives of South Sentul – West Karawang toll road is to overcome the current traffic jams in South Sentul – Karawang area, especially area around Karawang.

## 3. Business Entity's Scope of Work

The scope of work for the business entity will be Build-Operate-Transfer (B-O-T). The following are private partner's list of responsibilities:

- 1) Designing a Detailed Engineering Design (DED) of the South Sentul – West Karawang Toll Road based on the basic design;
- 2) Construction of the South Sentul – West Karawang Toll Road;
- 3) Operation and Maintenance of the South Sentul – West Karawang Toll Road during the concession period, after the construction phase has been completed; and
- 4) Sign and commit in the Guarantee Agreement with Indonesia Infrastructure Guarantee Fund (IIGF).

## 4. Technical Specification

The technical specifications for toll roads will refer to all regulations and specifications apply in Indonesia, such as regulations and codes issued by the Directorate General of Highways, Indonesian National Standard (SNI), and other regulations AASHTO, Japanese Code and Specifications, British Standard, etc.). Some technical specifications for the main road including:

No	Facilities	Capacity
1	Length	61.5 km
2	Right-of-Way (ROW) typical	30 m
3	Design Speed	100 Km/hr
4	Number of Lane	2 x (2x3.6) m
5	Lane Width	3.6 m
6	Outside Shoulder Width	2 x 3.0 m
7	Inner side Shoulder Width	2 x 1.5 m
8	Median Width	0.8 m
9	Cross slope	2%
10	Shoulder slope	2%

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The study indicates the need for Environmental Impact Assessment (EIA/AMDAL).

## 6. Land Acquisition and Resettlement Action Plan

The land requirement for the South Sentul - West Karawang Toll Road is ± 355.24 Ha. Land acquisition is purposed to be done in Q1 2022.

## 7. Project Cost Structure

Estimated Project Cost	USD 1,067.70 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
IRR	12.08 %
NPV	USD 104.79 Million

## 8. Government Support and Guarantee

The feasibility study of the project indicates no need for government supports but will need to be guaranteed by Indonesia Infrastructure Guarantee Fund (IIGF).

## 9. Contact Information

Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

# READY TO OFFER PROJECTS



## Drinking Water:

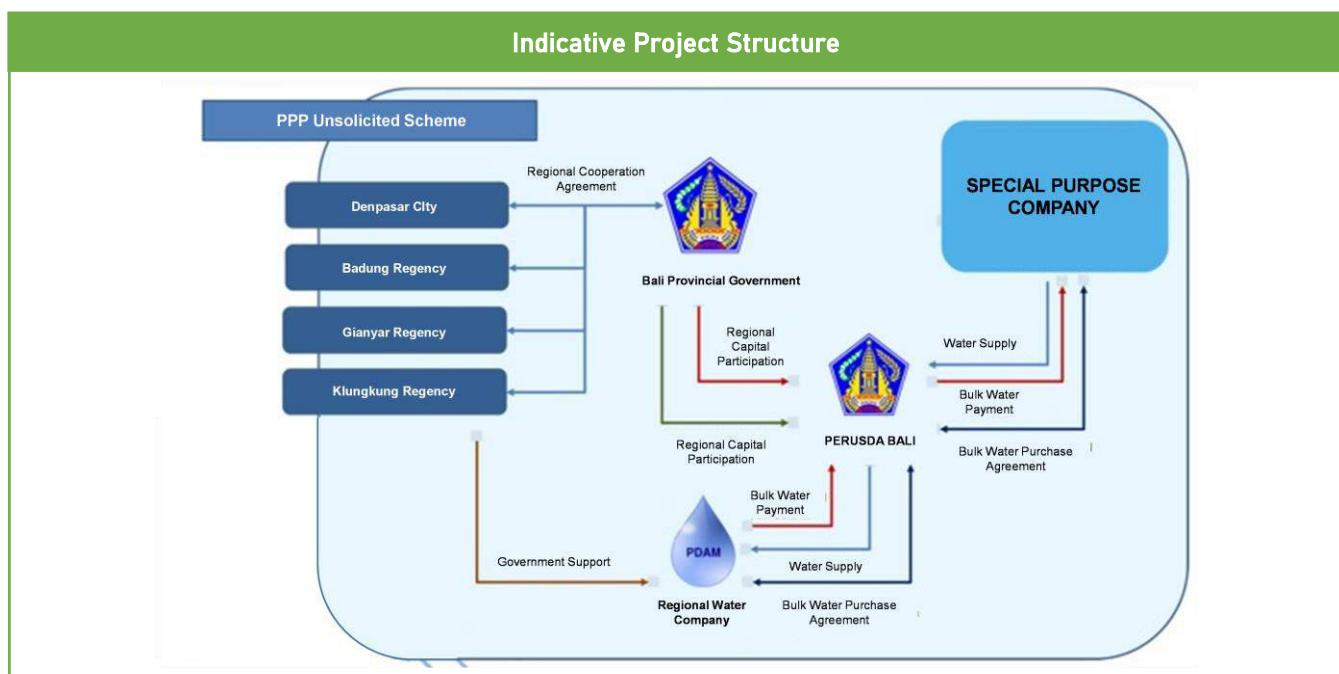
1. Sarbagikung Regional Water Supply System
2. Karian-Serpong Regional Water Supply System

## SARBAGIKUNG REGIONAL WATER SUPPLY SYSTEM

Location : Bali Province

Sector : Water Resources	Sub-Sector : Water Supply System
	<b>Description:</b> The Sarbagikung Water Supply System project built with capacity 2,300 lps for Increasing the capacity and quality of drinking water services in the Denpasar city, Badung regency, Gianyar regency, and Klungkung regency.
<b>Government Contracting Agency:</b> Perusda Bali	<b>Estimated Project Cost:</b> USD 222 Million
<b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Financial Feasibility:</b> IRR : 11.63 % NPV : USD 30.20 Million

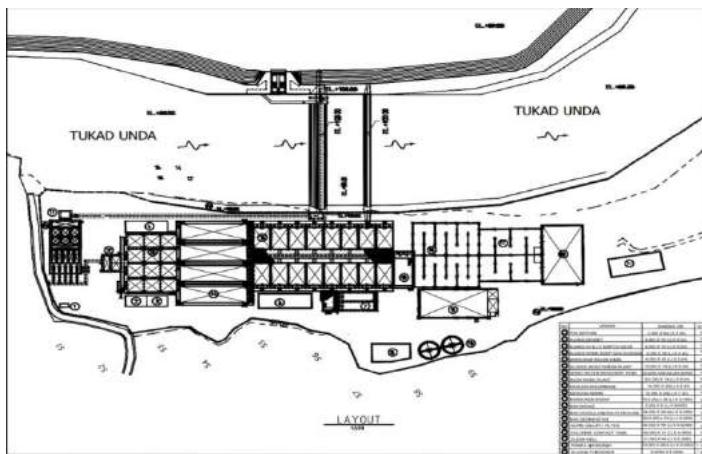
Indicative Project Schedule						
Feasibility Study Q1 2020	Pre-Qualification Q1 2020	Request for Proposal Q2 2020	Bid Award Q3 2020	Agreement Signing Q3 2020	Financial Close Q4 2020	Construction Q4 2020
<b>Project Status:</b> Approval Letter Issued						



## Project Digest

Project Title		Sarbagikung Regional Water Supply System
<b>Government Contracting Agency</b>	Perusda Bali	
<b>Implementing Agency</b>	Water Division of Perusda Bali	
<b>Preparation Agency</b>	PT. PP (Persero) & Affiliates Consortium	
<b>Project Cost</b>	USD 222 Million	
<b>Estimated Concession Period</b>	25 Years	
<b>Location</b>	Bali	

### 1. Project Picture (Map and/or Illustration of Project)



**Picture 1 – Layout of Water Treatment Facilities**

### 2. The Opportunity

#### 2.1. Project Background

The tourism industry and the rapid population growth in the southern area of bali province resulted in the crisis of the clean water. That also impact many aspects such as:

- Decrease of quantity, quality and access to clean water, in particular to meet basic needs of the community
- The disparity the provision of the water between the tourism sector and domestic tourists, that would cause it appears that the conflict as well as social and environmental problems in the short term and long

#### 2.2. Project Description

The Sarbagikung Water Supply System project will take place in four regency/city in Bali:

- a. Denpasar city
- b. Badung regency
- c. Gianyar regency
- d. Klungkung regency.

### **2.3. Project Objectives**

Increase the capacity and quality of drinking water services in the Denpasar city, Badung regency, Gianyar regency, and Klungkung regency.

### **3. Business Entity's Scope of Work**

The private partner responsibilities are Design, Build, Finance, Operate and Maintain the facility during concession period.

### **4. Technical Specification**

The technical specification for Sarbagikung Water Supply System should comply with SNI 6774-2008 and Permen PU No.27/PRT/M/2016

### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The Sarbagikung Water Supply System Project is required to provide AMDAL documents. The documents will be prepared by the Government Contracting Agency.

### **6. Land Acquisition and Resettlement Action Plan**

Land Acquisition for the project and any consequential resettlement will be assisted by the GCA.

### **7. Project Cost Structure**

Estimated Project Cost		USD 222 Million
Indicative Debt to Equity Ratio		
- Debt Level		70 %
- Equity Level		30 %
IRR		11.63 %
NPV		USD 30.20 Million

### **8. Government Support and Guarantee**

This project has indicated that it needs government guarantee through Indonesia Infrastrucutre Guarantee Fund (IIGF).

### **9. Contact Information**

Name : Ida Bagus Purbanegara

Position : Head of Water Division, Perusda Bali

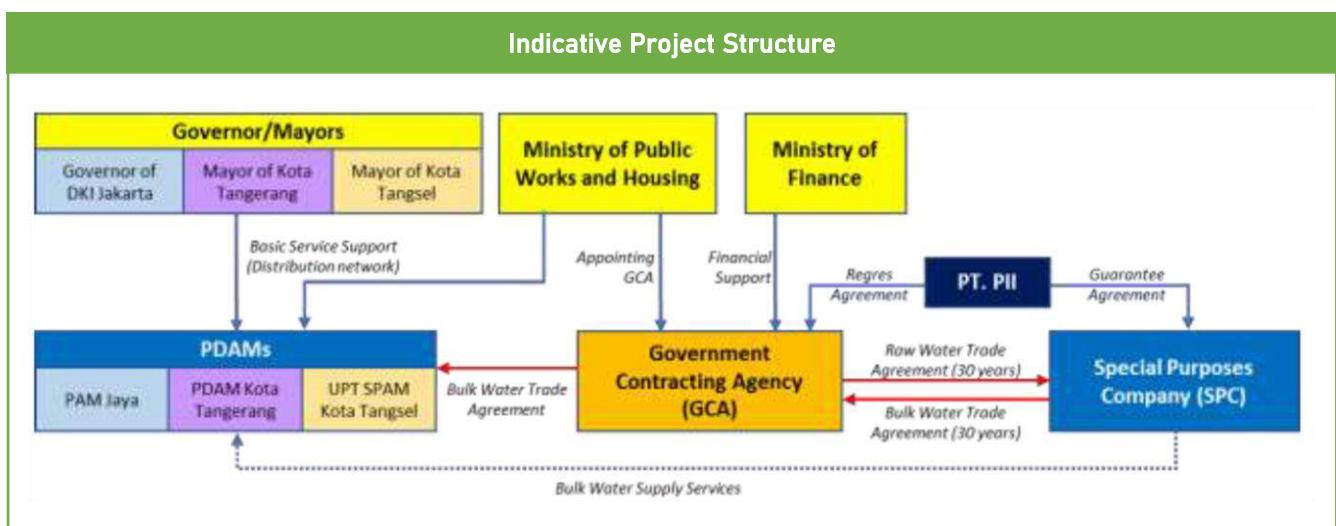
Phone : +62813 3811 2013

## KARIAN-SERPONG REGIONAL WATER SUPPLY SYSTEM

Location: Lebak, Banten Province

Sector: Water Resources	Sub-Sector: Water Supply System
	<b>Description:</b> Karian-Serpong Regional Water Supply System project is developed to accelerate the expansion of piped water supply for DKI Jakarta, Tangerang City, and South Tangerang where the bulk water will be sourced from the Karian Dam in Banten Province.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing	<b>Estimated Project Cost:</b> USD 169.26 Million
<b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Financial Feasibility:</b> IRR : 12.30% NPV : USD 58.74 Million
	<b>Estimated Concession Period:</b> 33 years (incl. construction)

Indicative Project Schedule					
Pre-Qualification Q2 2020	Request for Proposal Q3 2020	Bid Award Q1 2021	Agreement Signing Q2 2021	Financial Close Q3 2021	Construction Q4 2021
Project Status: Approval Letter Issued					



## Project Digest

<b>Project Title</b>	Karian-Serpong Regional Water Supply System
<b>Government Contracting Agency</b>	Minister of Public Works and Housing
<b>Implementing Unit</b>	Perum Jasa Tirta II
<b>Preparation Agency</b>	1. Korea Water Resources Corporation 2. LG Internasional Corp. 3. PT. Adhi Karya (Persero) Tbk.
<b>Project Cost</b>	USD 169.26 Million
<b>Estimated Concession Period</b>	33 Years
<b>Location</b>	Lebak, Banten Province

### 1. Project Picture (Map and/or Illustration of Project)

Karian-Serpong Water Supply System will serve piped water for DKI Jakarta, Tangerang City, and South Tangerang from Karian Dam.



Picture 1 – Service Area Plan

### 2. The Opportunity

#### 2.1. Project Background

The development of Karian-Serpong Water Supply System is planned to provide bulk water from Karian Dam to DKI Jakarta, Tangerang City, and South Tangerang. To support the acceleration of the expansion area of water supply as one of the target from National Medium-Term Development Plan 2020-2024, an external investment is needed to support the financing.

#### 2.2. Project Description

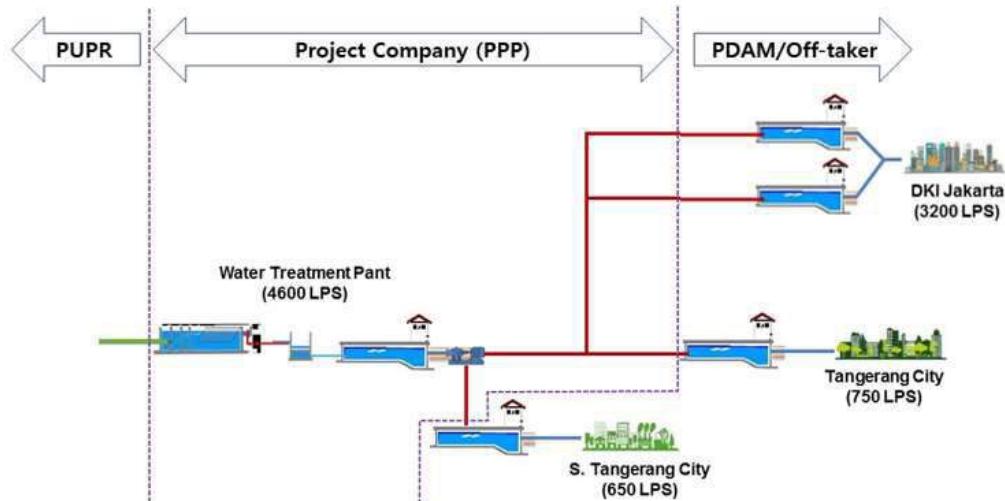
Karian-Serpong Water Supply System is developed to bridge the gap between the needs of the piped water supply system in the community and the availability of clean water supply provided by PDAM in West Jakarta, Tangerang, City, and South Tangerang. Since the current condition of drinking water supply service is very low, better bulk water supply will help the improvement of the drinking water supply service level. This project will provide the PDAM in those three region with bulk water from Karian Dam.

### 2.3. Project Objectives

The objective of Karian-Serpong Water Supply System is to supply bulk water for PDAM in West Jakarta, Tangerang, City, and South Tangerang service area.

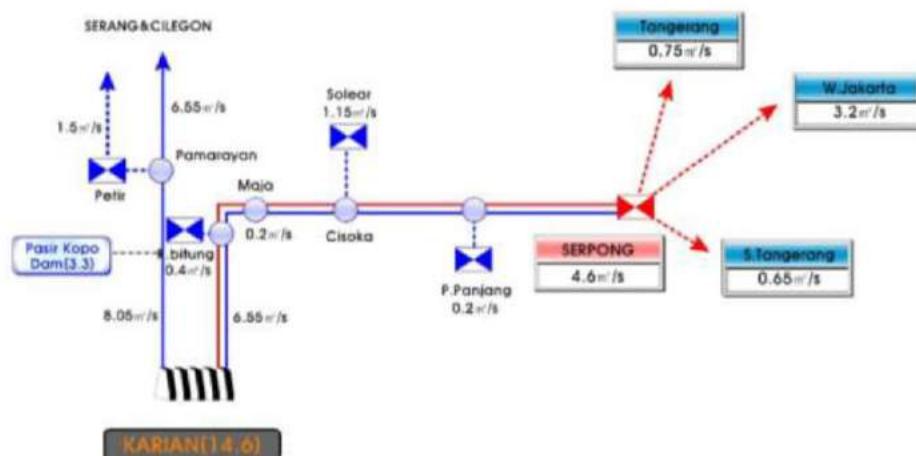
### 3. Business Entity's Scope of Work

The scope of work for the business entity will be build- operate-transfer.



**Picture 2 – Scope of Work**

### 4. Technical Specification



**Picture 3 – Water Supply Provision Plan (Phase 1) of the Karian Dam**

Description	Criteria	Notes
Consumption and Demand		
a. Consumption (l/cap/day)	q	
b. Average (lps)	q/86,400	

Description	Criteria	Notes
c. NRW (%)	< 1%	
d. Average demand, $Q_{avg}$ (Lps)	(b)/(1-c)	
e. Maximum Day, $Q_{max}$ (Lps)	$Q_{max} = 1.15 Q_{avg}$	
f. Peak Demand, $Q_{peak}$ (Lps)	$Q_{peak} = 1.75 Q_{avg}$	
<b>Formula and Program</b>		
a. Formula and Program	EPANET version 2.0 Hazen Williams	
b. Hazen Williams	$Q = 0.27853 \cdot C \cdot D^{2.63} \cdot S^{0.54}$	
<b>Main Distribution Pipeline</b>		
a. Design Capacity Factor ( $Q_{max}$ )	1.0	
b. Velocity		
i. minimum	0.3 ~ 0.6 m/sec	
ii. maximum	3.00 ~ 4.50 m/sec	PVC/ACP
	6.0 m/sec	Steel Pipe/DCIP
<b>Pressure</b>		
a. Minimum	0.50 ~ 1.00 atm	On Critical Point
b. Maximum	6.00 ~ 8.00 atm	PVC/ACP
	10.00 atm	Steel Pipe/DCIP
	12.40 atm	HDPE PE-100
	9.00 atm	HDPE PE-80
<b>Additional Equipment</b>		
a. Valve Type	Gate/Butterfly	
b. Pressure release tank (air chamber)	Over 70 m	elevation
c. River Crossing	Under/over	Steel Pipe
d. Thrust block	Bend, Tee, Valve, etc.	Concrete K-175
<b>Standard</b>		
a. Indonesia	SNI	
b. International	ISO, JIS, AWWA, ASTM, ANSI, DIN and BS	

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The study of AMDAL will be conducted after the Land Acquisition and Resettlement Action Plan is finished.

## 6. Land Acquisition and Resettlement Action Plan

Land Acquisition and Resettlement Action Plan is developed by Directorate General of Human Settlement and will be completed on Desember 2020.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 169.26 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>12.30 %</b>
<b>NPV</b>	<b>USD 58.74 Million</b>

## **8. Government Support and Guarantee**

The study has indicated that this project does not need government support but requires government guarantee from Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Haryo Bekti Martoyoedo

Position : Director for Financing of Settlement Infrastructure

Phone : +62 21-7264-230

Email : ppip.pembiayaan@pu.go.id

# UNDER PREPARATION PROJECTS

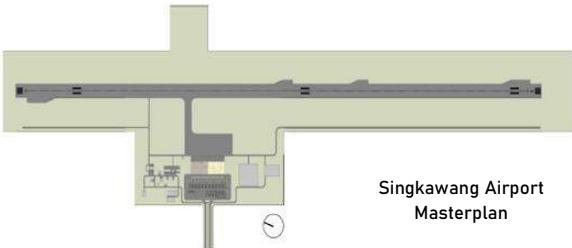


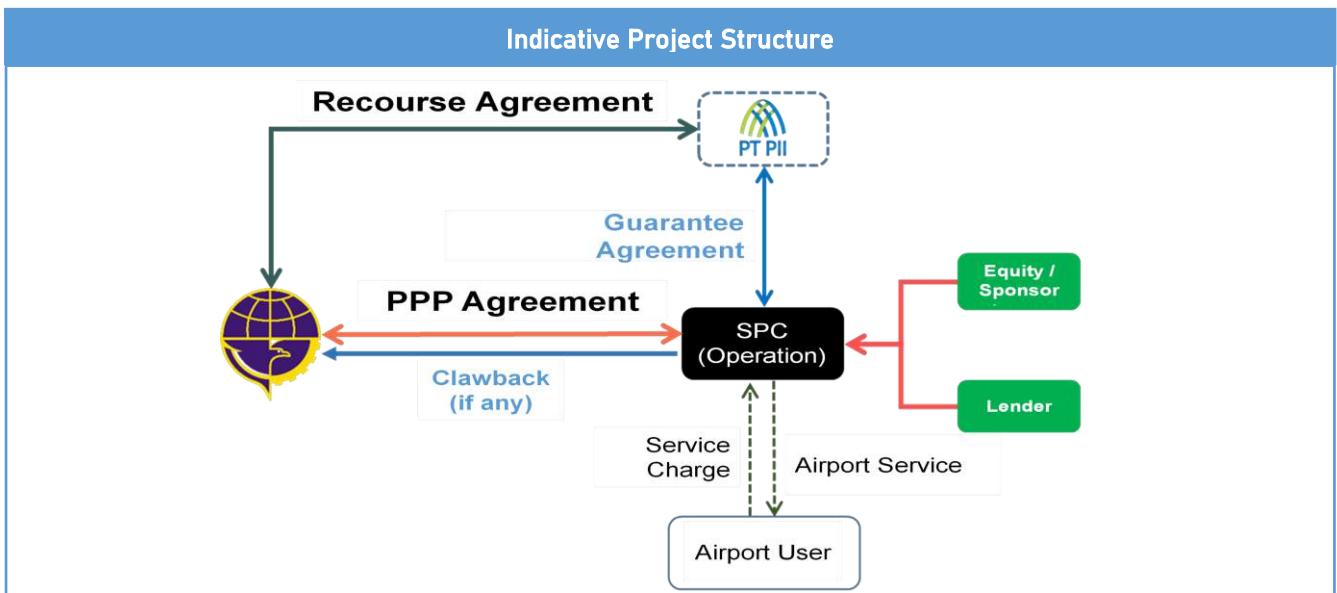
## Transportation:

1. Construction of Singkawang Airport
2. Development of Baubau Port
3. Development of Anggrek Port
4. Semarang City Light Rail Transit (LRT)
5. Development of Motor Vehicle Weighing Implementation Unit (UPPKB) in Java and Sumatera

## CONSTRUCTION OF SINGKAWANG AIRPORT

Location : Singkawang, West Kalimantan Province

Sector : Transportation	Sub-Sector : Airport
 <p>Singkawang Airport Masterplan</p>	<p><b>Description:</b> The Singkawang Airport Development Project was included as one of the airport projects planned to be developed under the PPP Scheme several years ago. With new development, the Singkawang Airport is planned to have 2.500 x 45 m runway with 12.500 m<sup>2</sup> area of domestic passenger terminal.</p>
<p><b>Government Contracting Agency:</b> Minister of Transportation delegated to Director General of Air Transportation</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	<p><b>Estimated Project Cost:</b> USD 313.04 Million</p> <p><b>Financial Feasibility:</b> IRR : 12.3% NPV : USD 15.38 Million</p> <p><b>Estimated Concession Period:</b> 32 years (2 years construction)</p>
<p><b>Indicative Project Schedule</b></p> 	
<p>Project Status: Outline Business Case</p>	



## Project Digest

Project Title	Construction of Singkawang Airport
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Air Transportation
<b>Implementing Agency</b>	Directorate of Airport, Ministry of Transportation
<b>Preparation Agency</b>	Directorate of Airport, Ministry of Transportation
<b>Project Cost</b>	313.04 Million USD
<b>Estimated Concession Period</b>	32 years operation including 2 years construction
<b>Location</b>	Singkawang, West Kalimantan

### 1. Project Picture (Map and/or Illustration of Project)

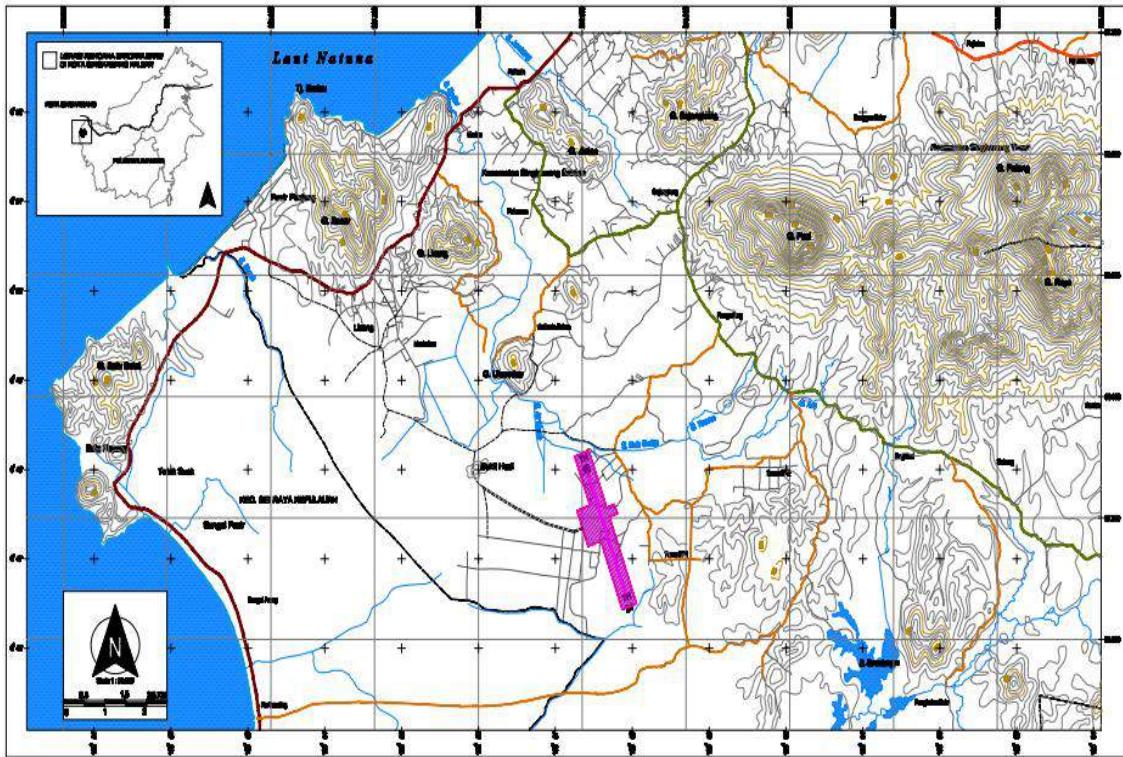


Figure 1 – Map of Singkawang Airport Location

### 2. The Opportunity

#### 2.1. Project Background

Singkawang City is a city in West Kalimantan Province. It is approximately 153 km from the Provincial Capital, Pontianak City. Singkawang City which is well-known with Chinese culture has several events that are very famous and attract many tourists. Singkawang City also has Simping Island in Sedau Beach with the title of the smallest island in the world that has been recognized by the United Nations (UN).

With the variety of attractions that are now starting to interest domestic and foreign tourists in the city, will automatically also have an impact on aspects of the availability of transportation

facilities and infrastructure in the City of Singkawang. However, for now access from the City of Singkawang to the nearest capital or airport namely Supadio International Airport ("PNK") can only be reached by land. Road access that is traversed has many connecting bridges, which if there is damage there will be economic paralysis in Singkawang City and surrounding areas. Therefore alternative modes of transportation are needed, such as air transportation to support economic and tourism activities in Singkawang City.

## 2.2. Project Description

The development of the Singkawang Airport will consist of two sides of Airport development: Air Side and Land Side. Air Side developments includes: Runway, Runway Strip, Runway End Safety Area (RESA), Taxiway, Apron, Airside Service Road, Airside Perimeter Road, and Airside Operation Road. Land side developments include: Passenger Terminal, Passenger Parking Area, Conning Tower, Operation Office, Powerhouse, Security Office, Cargo Terminal and other facilities.

By using the forecast results, the construction of the Project facilities will be based on the most actual movement projection annually. From the assessing the number of passengers, the number of passengers during peak hours, and the largest type of aircraft serving passengers, the level of aircraft occupancy (load factor) can be estimated. Upon review of the previous Project development plan needs, the Project development scenario recommended that Phase I development is planned for 2021 - 2022 (overall facilities), and Phase II for 2029 (Land Side development) by following the results of the most actual forecasts of airport movements and demand in Singkawang City.

## 2.3. Project Objectives

The purpose of Singkawang Airport is to improve accessibility and mobilization of goods and people to and from Singkawang. Therefore, economic activity and especially tourism sector will benefit and flourish.

## 3. Business Entity's Scope of Work

D-B-F-O-M-T (Design – Build – Finance – Operation – Maintenance – Transfer) with user charge payment method.

## 4. Technical Specification

The technical specifications for Singkawang Airport are as follow:

No	Facilities	Capacity
1	Aerodrome Reference Code	4C
2	Runway Dimension	2500 x 45 m <sup>2</sup>
	Runway Strip Dimension	2740 x 45 m <sup>2</sup>
	Runway Strength	60 F/C/X/T
	Runway End Safety Area (RESA)	90 x 90 (Threshold 16); 90x90 (Threshold 34)
	Taxiway	2
	Apron Dimension	220 x 85
	Total Parking Stand	5
	Facilities	Domestic Passenger Terminal

No	Facilities	Capacity
	Hanggar Cargo Terminal Parking Area Administration Office Workshop/Maintenance Area Security Office Clinic Waste Management Plant Sewerage Treatment Plant Powerhouse Cafetaria Quarantine Area Hotel and Garden Religious Facilities	

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The City Government of Singkawang is working to fulfill its responsibility in preparing the AMDAL Document for the Project's plan to accommodate the construction of Projects that have runway specifications above 1,200 m. This will, in addition the extent of the area affected by operational and safety area of the airport, certainly requires the handling of the potentially crucial impacts of environmental management during the construction and operation stages of the Project. The mandatory AMDAL activities are regulated in LH Regulation 5/2012 concerning Types of Business Plans and / or activities that are required to have an Environmental Impact Analysis (AMDAL).

## 6. Land Acquisition and Resettlement Action Plan

There is a land requirement of 151.45 ha with a fair value of replacement of IDR 13,754,408,056 sourced from the Singkawang City Government's Budget (APBD) for Fiscal Year 2019, therefore all assets that have been built through APBD investments must be donated / handed over to the Directorate General of Air Transport, the Ministry of Transportation to be managed in accordance with the laws and regulations that are applies to the KSPI scheme through the use of BMN/D (Government Owned Asset) in the form of land.

## 7. Project Cost Structure

Estimated Project Cost	USD 313.04 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
IRR	17%
NPV	USD 15.38 Million

## **8. Government Support and Guarantee**

The GCA would need facilitate the project by means of:

1. Viability Gap Fund (VGF)
2. Construction Support
3. Tax Incentive
4. Ease of Permit Issuance

In terms of project guarantee by IIGF, the indicative risk that needs to be guaranteed are:

1. Land Acquisition Risk
2. Tariff Adjustment Risk
3. Political Risk
4. Termination Risk

## **9. Contact Information**

Name : Arief Mustofa

Position : Vice Head of Airport Partnership and Business Division

Phone : +62 815 9419511

Email : ariefnote@gmail.com

Name : Prayoga Nugraha

Position : Airport Inspector / Airport Partnership Analyst

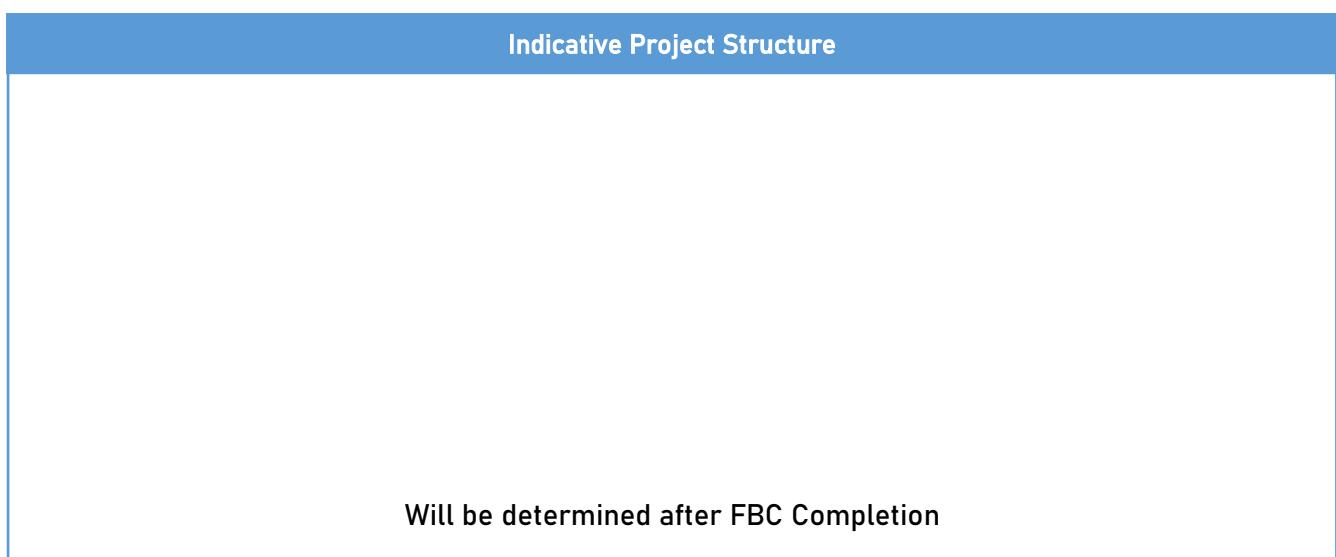
Phone : +62 813 19122477

Email : kotaksurat\_yoga@yahoo.com

## DEVELOPMENT OF BAUBAU PORT

Location: Baubau, Southeast Sulawesi Province

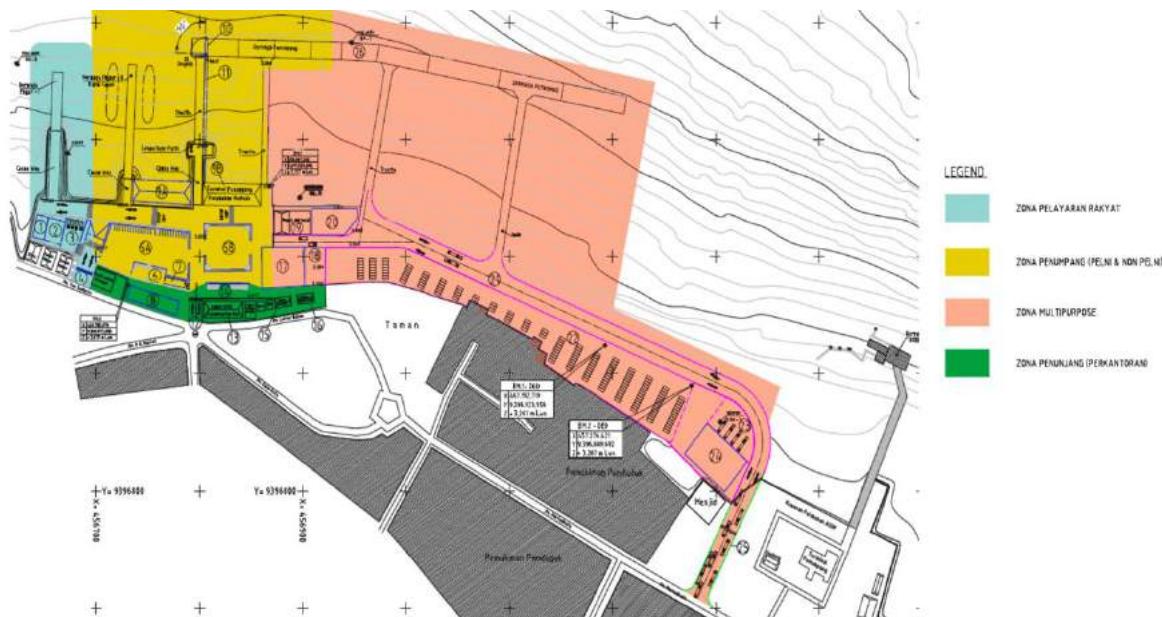
Sector : Transportation	Sub-Sector : Port
	<b>Description:</b> The Murhum Baubau Port needs to be developed to meet the increasing demand and to support long-term programs of Baubau Regional Government which aims to make the city as the gateway of economy and tourism in Southeast Sulawesi. This port has the most rapid economic activities compared to the other two ports in the city of Baubau.
<b>Government Contracting Agency:</b> Minister of Transportation delegated to Director General of Sea Transportation	<b>Estimated Project Cost:</b> USD 24 Million
<b>Type of PPP:</b> Solicited	<b>Financial Feasibility:</b> IRR : Under Calculation NPV : Under Calculation
<b>Return of Investment:</b> User Charge	<b>Estimated Concession Period:</b> 30 years



## Project Digest

Project Title	Development of Baubau Port
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Sea Transportation
<b>Implementing Agency</b>	Directorate General of Sea Transportation
<b>Preparation Agency</b>	PT. Penjaminan Infrastruktur Indonesia (Persero)
<b>Project Cost</b>	USD 24 Million
<b>Estimated Concession Period</b>	30 years
<b>Location</b>	Southeast Sulawesi

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Baubau Port

### 2. The Opportunity

#### 2.1. Project Background

Baubau Seaport is located in Wolio District, Baubau City, Southeast Sulawesi Province. This port is one of the strategic transportation nodes in the Eastern Indonesia region. Due to this geographical position, Baubau Seaport is in the line of sea transportation movement from western regions of Indonesia such as Jakarta, Surabaya and the central region like Makassar to eastern part of Indonesia such as Maluku, North Maluku, Central Sulawesi and North Sulawesi. Baubau Port is also a gateway for maritime transport for Southeast Sulawesi Province where most of the passenger and goods movement transit at this port.

Stated in Baubau development roadmap, the Port of Baubau will be further developed to fulfill the needs of better service to support long term plan of making Baubau the gateway for economic and tourism area in Southeast Sulawesi. In order to achieve that, facilities of Baubau Port will need to be upgraded periodically to sustain the demand. The upgrade will include land reclamation, commercial area development, and port terminal development.

## **2.2. Project Description**

The scope of work for Baubau Port Development consist of :

- a. Land zoning rearrangement;
- b. Rehabilitation, operation and maintenance of existing facilities (traditional shipping, passenger and multipurpose terminal);
- c. Construction of additional facilities for development of port considering demand growth;
- d. Provision of handling equipment to improve port performance level;
- e. Operation and maintenance of added facilities to further upgrade port service level;
- f. Ensure and transfer all asset until the end of concession period.
- g. Providing handling equipments;
- h. Providing water supply and other utilities.

## **2.3. Project Objectives**

- a. To rehabilitate and expanding passenger and multipurpose terminal;
- b. To improve port performance level in cargo and container handling;
- c. To improve safety and security for passenger.

## **3. Business Entity's Scope of Work**

Rehabilitate – Build – Operate – Transfer

## **4. Technical Specification**

Landside facilities consist of:

- a. Container Yard
- b. Container Freight Station
- c. Cargo Warehouse
- d. Open Storage
- e. Parking Area
- f. Passenger Terminal
- g. Parking Area

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Project activities that could induce significant environment impacts are :

- a. Construction workers mobilization
- b. Heavy equipment mobilization
- c. Earthworks and facilities construction
- d. Operational workers recruitment
- e. Seaside facilities operations

## **6. Land Acquisition and Resettlement Action Plan**

Land acquisition is needed for the addition of gateway and access road to multipurpose terminal in order to ease the circulation of cargo and container movements.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 24 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under Calculation
- <b>Equity Level</b>	Under Calculation
<b>IRR</b>	Under Calculation
<b>NPV</b>	Under Calculation

## **8. Government Support and Guarantee**

Government support and government guarantee will be determined after completing of FBC

## **9. Contact Information**

Name : Aries Wibowo

Position : Head of Port Development Planning Subdirectorate

Phone : -

Email : sd1pelpeng@gmail.com

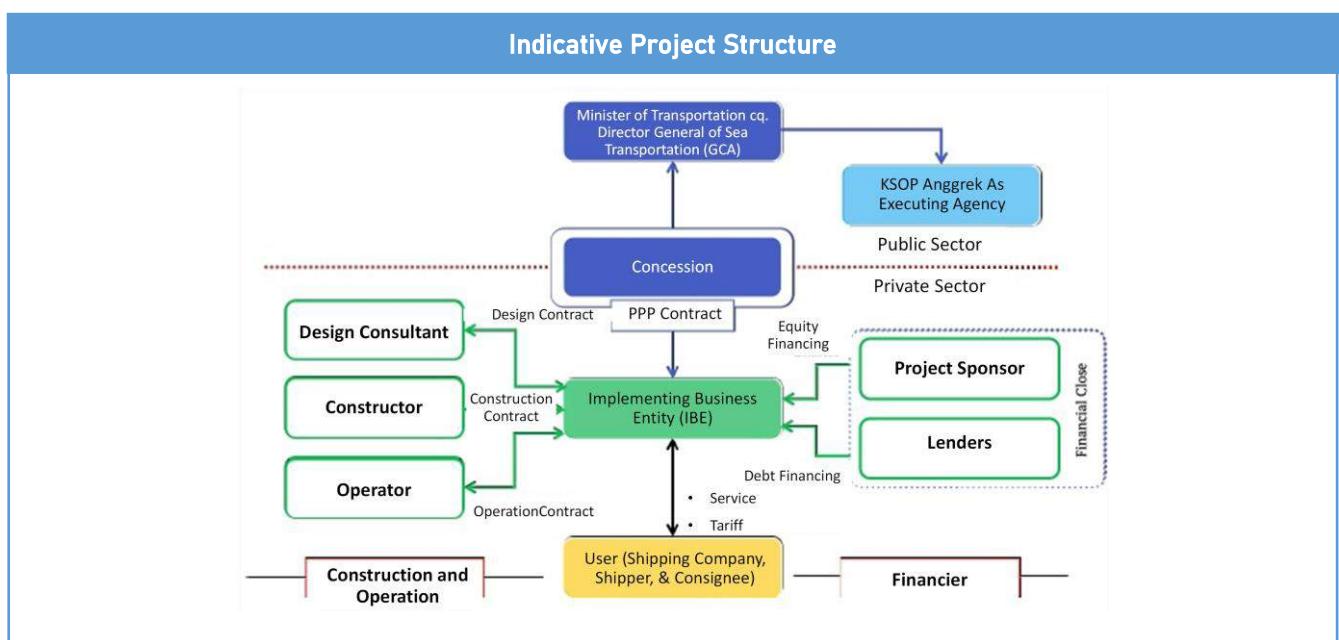
## DEVELOPMENT OF ANGGREK PORT

Location : North Gorontalo Province

Sector : Transportation	Sub-Sector : Port
	<b>Description:</b> Anggrek Port as a goods gateway and a region economic driver needs to be supported by the development of the hinterland area including its accessibility. Trading activities and distribution of goods especially in the North Gorontalo depend on this port. Furthermore, this port is non-commercial port and operated under the Directorate of Sea Transportation of the Ministry of Transportation.
<b>Government Contracting Agency:</b> Minister of Transportation delegated to Director General of Sea Transportation <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 69.58 Million <b>Financial Feasibility:</b> IRR : 13.47 % NPV : USD 31.73 Million <b>Estimated Concession Period:</b> 30 years

Indicative Project Schedule							
Final Business Case Q1 2020	Pre-Qualification Q3 2020	Request for Proposal Q3 2020	Bid Award Q4 2020	Agreement Signing Q4 2020	Financial Close Q1 2021	Construction Q2 2021	

Project Status : Final Business Case



## Project Digest

Project Title	Development of Anggrek Port
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Sea Transportation
<b>Implementing Agency</b>	Directorate General of Sea Transportation
<b>Preparation Agency</b>	Directorate of Ports
<b>Project Cost</b>	USD 69.58 Million
<b>Estimated Concession Period</b>	30 years
<b>Location</b>	North Gorontalo Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Anggrek Port

### 2. The Opportunity

#### 2.1. Project Background

Gorontalo is one of developing areas in Indonesia which still need infrastructure development support. Main infrastructure to support the development of the Gorontalo is the development of ports. Several ports built in Gorontalo play important role in enhancing the regional economic, thereby need to be optimized. One of them is Anggrek Port located in North Gorontalo Regency. Thus, trading activities and distribution of goods especially in the North Gorontalo and its surroundings, depend on this port.

The basic and supporting facilities at this port are sufficient, but seeing the trends in development, including the trend of market demand and the development of the hinterland area, the infrastructure of Anggrek Port needs to be developed. The development of Anggrek Port is based on port development planning established through the Port Master Plan. The intended planning is determined by taking into account related various aspects both from the technical and non-technical aspects which represent the long-term development needs of Anggrek Port.

Considering the potential of Anggrek Port as a trade and distribution of goods gateway and also as a region economic driver, it needs to be supported by the development of the hinterland

area including accessibility around it. The intended development is not only the responsibility of the Government, but also the role of the private sector or business entity is very necessary to accelerate the development. Especially for Anggrek Port, through involvement of the private sector or business entities, value for money of this port can be increased to provide great benefits to the economy of its surrounding community and especially Gorontalo Province.

## 2.2. Project Description

The scope of work for Anggrek Port Development consist of constructing, providing, operating and maintaining facilities:

- a. Construction of container jetty;
- b. Construction of container yard and bulk facilities;
- c. Providing Reefer Container and Cold Storage;
- d. Providing of container and bulk services;
- e. Providing of Container Consolidation/ Distribution Center (SDS) services;
- f. Providing truck parking yard;
- g. Providing handling equipments;
- h. Providing of water supply and other utilities.

## 2.3. Project Objectives

- a. To enhance port capacity;
- b. To improve port performance level in cargo and container handling;

## 3. Business Entity's Scope of Work

Build – Operate – Transfer

## 4. Technical Specification

Landside facilities consist of:

- a. Container Yard
- b. Reefer Container
- c. Container Freight Station
- d. Cargo Warehouse
- e. Open Storage
- f. Cold Storage
- g. Parking Area

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Project activities that could induce significant environment impacts are:

- a. Construction workers mobilization
- b. Heavy equipment mobilization
- c. Earthworks and facilities construction
- d. Operational workers recruitment
- e. Seaside facilities operations

## **6. Land Acquisition and Resettlement Action Plan**

Land acquisition and reclamation are needed for the addition of landside facilities.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 69.58 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	70%
- <b>Equity Level</b>	30%
<b>IRR</b>	13.47%
<b>NPV</b>	USD 31.73 Million

## **8. Government Support and Guarantee**

Government Support and guarantee will be determined after completion of FBC

## **9. Contact Information**

Name : Aries Wibowo

Position : Head of Port Development Planning Subdirectorate

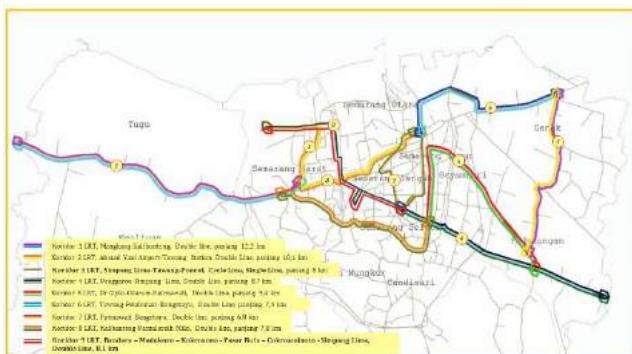
Phone : -

Email : kpbupelabuhan@gmail.com

## SEMARANG CITY LIGHT RAIL TRANSIT (LRT)

Location : Semarang, Central Java Province

### Sector : Transportation



### Sub-Sector : Urban Transportation

#### Description:

Semarang has already had an urban public transportation with BRT system. Since the BRT does not have its own dedicated lane, the congestion problem still occurred and delayed travelling time from point to point. LRT is proposed as one of the solutions to reduce congestion and planned to be built with elevated track.

**Estimated Project Cost:** USD 1,041.48 Million

#### Financial Feasibility:

IRR : 11.86%

NPV : USD 536.81 Million

**Estimated Concession Period:** 50 years

#### Government Contracting Agency:

Mayor of Semarang

#### Type of PPP:

Solicited

#### Return of Investment:

Availability Payment

### Indicative Project Schedule



**Project Status:** Outline Business Case

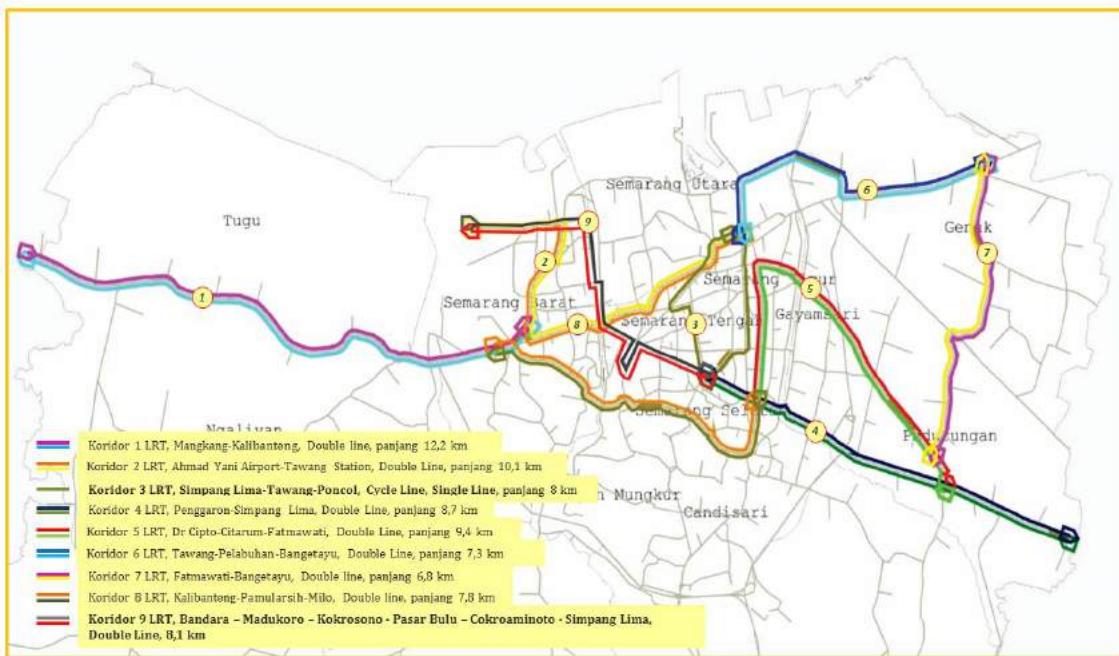
### Indicative Project Structure

Project Structure will be defined after OBC

## Project Digest

Project Title	Semarang City Light Rail Transit (LRT)
Government Contracting Agency	Mayor of Semarang
Implementing Unit	Semarang City Transportation Agency
Preparation Agency	Bappenas
Project Cost	USD 1,041.48 Million
Estimated Concession Period	50 years
Location	Semarang, Central Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Semarang LRT Track Route

### 2. The Opportunity

#### 2.1. Project Background

Semarang has already had an urban public transportation with BRT system. Since the BRT does not have its own dedicated lane, the congestion problem still occurred and delayed travelling time from point to point. LRT is proposed as one of the solutions to reduce congestion and planned to be built with elevated track.

#### 2.2. Project Description

The LRT route will be divided to nine (9) corridors with the total length 78.4 km.

1. Corridor 1: Mangkang-Kalibanteng
2. Corridor 2: Ahmad Yani Airport-Tawang Station
3. Corridor 3: Simpang Lima-Tawang Cycle Line
4. Corridor 4: Penggaron-Simpang Lima

5. Corridor 5: Dr.Cipto-Citarum-Fatmawati
6. Corridor 6: Tawang-Pelabuhan-Bangetayu
7. Corridor 7: Fatmawati-Bangetayu
8. Corridor 8: Kalibanteng-Pamularsih-Milo
9. Corridor 9: Bandara-Madukoro-Kokrosono-Pasar Bulu-Cokroaminoto-Simpang Lima

### 2.3. Project Objectives

To provide Semarang with alternative public transportation with TOD approach that can reduce the congestion and travelling time to every destination.

## 3. Business Entity's Scope of Work

The scope of work for the private partner will be elaborated more in further study.

## 4. Technical Specification

Track	Specification	Length (km)
Corridor 1: Mangkang Kalibanteng	Double Line	12.2
Corridor 2: Ahmad Yani Airport-Tawang Station	Double Line	10.1
Corridor 3: Simpang Lima-Tawang Cycle Line	Single Line	8
Corridor 4: Pengaron-Simpang Lima	Double Line	8.7
Corridor 5: Dr.Cipto-Citarum-Fatmawati	Double Line	9.4
Corridor 6: Tawang-Pelabuhan-Bangetayu	Double Line	7.3
Corridor 7: Fatmawati-Bangetayu	Double Line	6.8
Corridor 8: Kalibanteng-Pamularsih-Milo	Double Line	7.8
Corridor 9: Bandara-Madukoro-Kokrosono-Pasar Bulu-Cokroaminoto-Simpang lima	Double Line	8,1

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

AMDAL requirements will be assessed in the Outline Business Case study. In the mean time, if the project requires to have AMDAL, the document will be prepared by the GCA.

## 6. Land Acquisition and Resettlement Action Plan

Further Land Acquisition plan will be provided in the further study.

## 7. Project Cost Structure

Estimated Project Cost	USD 1,041.48 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
FIRR	11.86 %
NPV	USD 536.81 Million

## **8. Government Support and Guarantee**

Government support and government guarantee will be determined in further study.

## **9. Contact Information**

Name : Budi Prakosa

Position : Head of Infrastructure Planning and Regional Development

Phone : +62813-2557-1434

Email : prakbudi@gmail.com

# DEVELOPMENT OF MOTOR VEHICLE WEIGHING IMPLEMENTATION UNIT (UPPKB) IN JAVA AND SUMATERA

Location : Java and Sumatera Region

Sector : Transportation	Sub-Sector : Vehicle Weighing Facility
<p>1. Conventional Weighbridge</p>   <p>2. Rail Weighbridge</p>   <p>3. Portable Weighbridge</p>  	<p><b>Description:</b> In order to control overweight vehicles on road, MoT is planning to procure weighbridge/truck scale by PPP scheme for 6 location in Java and Sumatera located in: 1) UPPKB Tanjung, Brebes Regency, 2) UPPKB Subah, Batang Regency, 3) UPPKB Guyangan, Nganjuk Regency, 4) UPPKB Blambangan Umpu, North Lampung Regency, 5) UPPKB Merapi, Lahat Regency, and 6) UPPKB Muara Tembesi, Batanghari Regency.</p> <p><b>Estimated Project Cost:</b> USD 23.57 Million</p> <p><b>Financial Feasibility:</b> IRR : 9% NPV : USD 0.73 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>

## Government Contracting Agency:

Minister of Transportation delegated to  
Director General of Land Transportation

## Type of PPP:

Solicited

## Return of Investment:

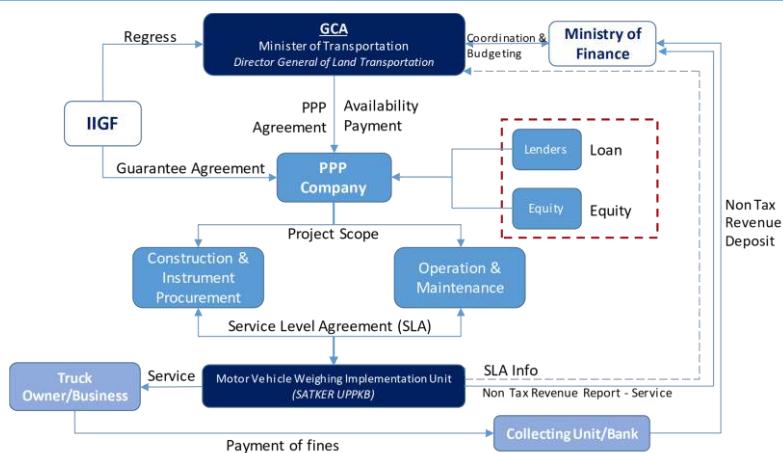
Availability Payment

## Indicative Project Schedule



## Project Status: Outline Business Case

## Indicative Project Structure



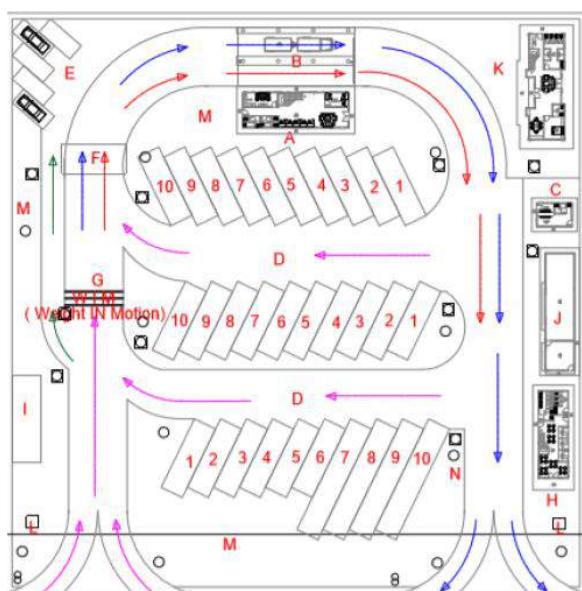
## Project Digest

<b>Project Title</b>		<b>Development Of Motor Vehicle Weighing Implementation Unit (UPPKB) In Java And Sumatera</b>
<b>Government Contracting Agency</b>	Minister of Transportation delegated to Director General of Land Transportation	
<b>Implementing Agency</b>	Directorate General of Land Transportation	
<b>Preparation Agency</b>	Directorate General of Land Transportation	
<b>Project Cost</b>	USD 23.57 Million	
<b>Estimated Concession Period</b>	15 years	
<b>Location</b>	Java and Sumatera	

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Illustration of UPPKB



Picture 2 – Layout of UPPKB

## **2. The Opportunity**

### **2.1. Project Background**

Vehicle weighing violation have caused road damage or lowering road design life. The decreasing of road capacity also impact many aspect such as:

- Decreasing economic center and industries connectivity
- Interrupting trade flow and public transportation
- Decreasing road and bridge infrastructure quality rapidly
- Increasing road safety and traffic risk.

### **2.2. Project Description**

The Motor Vehicle Weighing Implementation Unit project will take place in six locations in Sumatera and Java that are:

1. UPPKB Tanjung, Brebes Regency, Central Java
2. UPPKB Subah, Batang Regency, Central Java
3. UPPKB Guyangan, Nganjuk, East Java
4. UPPKB Way Kanan, Way Kanan Regency, Lampung
5. UPPKB Merapi, Lahat Regency, South Sumatera
6. UPPKB Muara Tembesi, Batanghari Regency, Jambi.

### **2.3. Project Objectives**

The regulation on vehicle weighing should be implemented to control the load carried by the vehicle. The task will be held by Motor Vehicle Weighing Implementation Unit.

## **3. Business Entity's Scope of Work**

The private partner responsibilities are Design, Build, Financing, and Maintain the facility during concession period. Private partner also provides and maintain the instrument for Motor Vehicle Weighing Unit.

## **4. Technical Specification**

The technical specification for Motor Vehicle Weighing Implementation Unit should comply with The Director General of Land Transportation Decree No. SK/5765/KP.803/DRJD/2017. There are two types based on the regulation:

1. Type I, for road section with less than 2,000 vehicles/day per direction and one weighing platform
2. Type II, for road section with equal or more than 2,000 vehicles/day per direction and two or more weighing platform

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The Motor Vehicle Weighing Implementation Unit Project requires to provide AMDAL documents. The documents will be prepared by the Government Contracting Agency.

## **6. Land Acquisition and Resettlement Action Plan**

There is no need for land acquisition as the project will be built on government land.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 23.57 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	70%
- <b>Equity Level</b>	30%
<b>IRR</b>	9 %
<b>NPV</b>	USD 0.73 Million

## **8. Government Support and Guarantee**

Government support and government guarantee will be determined on the Final Business Case document.

## **9. Contact Information**

Name : Susanty Pertiwi

Position : Head of Road Infrastructure Entrepreneurship Subdirectorate

Phone : +62 852 8006 5003

Email : s.pertiwi74@gmail.com

# **UNDER PREPARATION PROJECTS**

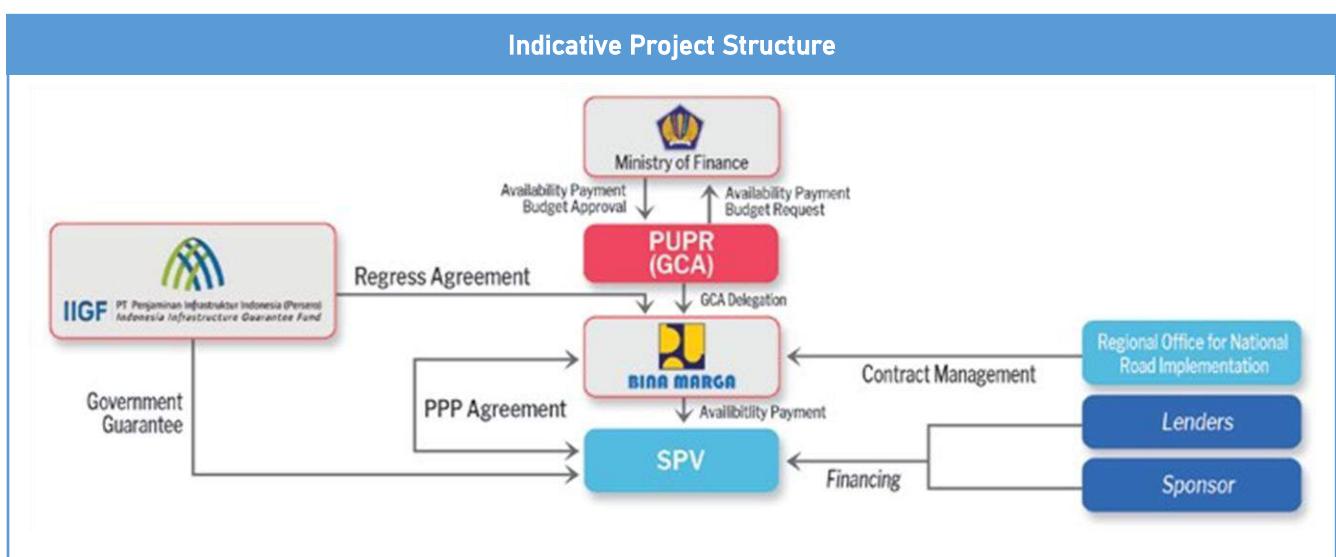
## **Road:**

- 1. Preservation of Eastern Sumatera National Road in Riau Province**
- 2. Makassar-Maros Sungguminasa-Takalar Toll Road**
- 3. Construction of Badung Southern Ring Road**
- 4. Duplication and/or Replacement of Callender Hamilton Bridge in Java Main Road**
- 5. Batam-Bintan Bridge**

## PRESERVATION OF EASTERN SUMATERA NATIONAL ROAD IN RIAU PROVINCE

Location : Riau Province

Sector : Road	Sub-Sector : Non-Toll Road
	<b>Description:</b> One of the Eastern Sumatra Road in the Province starting from the Kayu Ara Intersection (Pekanbaru City) to Lago Intersection (Pelalawan Regency) consists of three streets that could be categorized as a National Road which is correlated towards the national economic growth. The approximate total length of this project will be 43 km. Investment return will be paid using the Availability Payment Method.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing	<b>Estimated Project Cost:</b> USD 67.85 Million
<b>Type of PPP:</b> Solicited	<b>Financial Feasibility:</b> IRR : 9.81% NPV : USD 0.96 Million
<b>Return of Investment:</b> Availability Payment	<b>Estimated Concession Period:</b> 15 years



## Project Digest

<b>Project Title</b>	<b>Preservation of Eastern Sumatera National Road in Riau Province</b>
<b>Government Contracting Agency</b>	Minister of Public Works and Housing
<b>Implementing Agency</b>	Directorate General of Highways
<b>Preparation Agency</b>	Directorate General of Highways
<b>Project Cost</b>	USD 67.85 Million
<b>Estimated Concession Period</b>	15 Years
<b>Location</b>	Riau

### 1. Project Picture (Map and/or Illustration of Project)



**Picture 1 – Maps of Eastern Sumatera National Road in Riau Province**

### 2. The Opportunity

#### 2.1. Project Background

National connectivity needs to be improved and maintained to sustain economic growth and ensure the welfare of the people. The better road will improve people's accessibility to the goods and services needed. In its development, the allocated budget is not enough to achieve the target of developing a non-toll national road. The budget limitation becomes constraints to

the provision of adequate non-toll national road infrastructure services, both for the preservation of existing sections and for the development of new sections.

To overcome the limitations of the budget, the government needs to think about schemes of financing to accelerate development on national non-toll road. One such scheme is PPP through availability payment.

## 2.2. Project Description

Eastern Sumatera National Road network stretches from Aceh to Lampung going across Riau Province. Riau part of this national road is divided into three sections:

1. Kayu Ara Intersection -Palalawan Regency (3,6 km)
2. Palalawan Regency - Sikijang Mati (9,1 km)
3. Sikijang Mati -Lago Intersection (30,3 km)

The total length of the road is 43 km with four bridges along the way.

## 2.3. Project Objectives

The objectives of this project are to construct, maintain and preserve the road condition of Preservation of Eastern Sumatera National Road in Riau Province so that it can serve the growing number of traffic in Sumatera throughout the concession period.

## 3. Business Entity's Scope of Work

The business entity is responsible for performing the road preservation project, including designing, financing, construction, operation, and maintenance during the concession period.

## 4. Technical Specification

The technical specifications for Preservation of Eastern Sumatera National Road in Riau Province as stated by government regulation must comply with several criteria:

1. Design speed
2. Road width
3. Road capacity
4. Entryway
5. Intersection and U-Turn
6. Superstructures
7. Road equipment
8. Road use according to function; and
9. Road continuity

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The documents will be prepared by the Government Contracting Agency.

## **6. Land Acquisition and Resettlement Action Plan**

The information related to the land acquisition and resettlement plan will be provided in subsequent studies.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 67.85 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
-	<b>Debt Level</b>	80%
-	<b>Equity Level</b>	20%
<b>IRR</b>		9.81 %
<b>NPV</b>		USD 0.96 Million

## **8. Government Support and Guarantee**

The project indicates no need for government support. Government guarantee by Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Reni Ahiantini

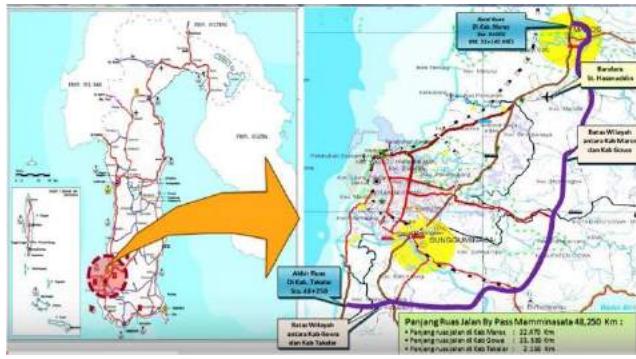
Position : Director of Implementation Infrastructure Financing for Road and Bridge, DGIF

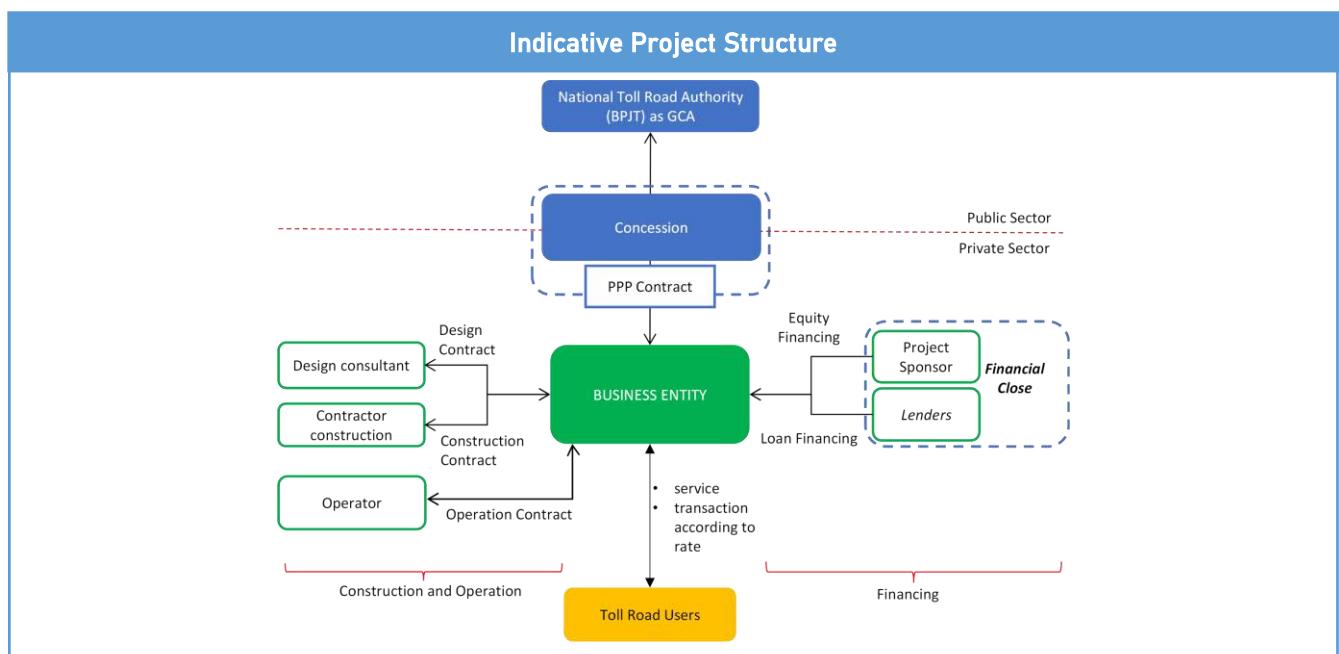
Phone : +62-816-1161-321 / Fax. +62-21-7245751

Email : ahiantini@yahoo.com; direktoratppijj@gmail.com

## MAKASSAR-MAROS-SUNGGUMINASA-TAKALAR TOLL ROAD

Location : South Sulawesi Province

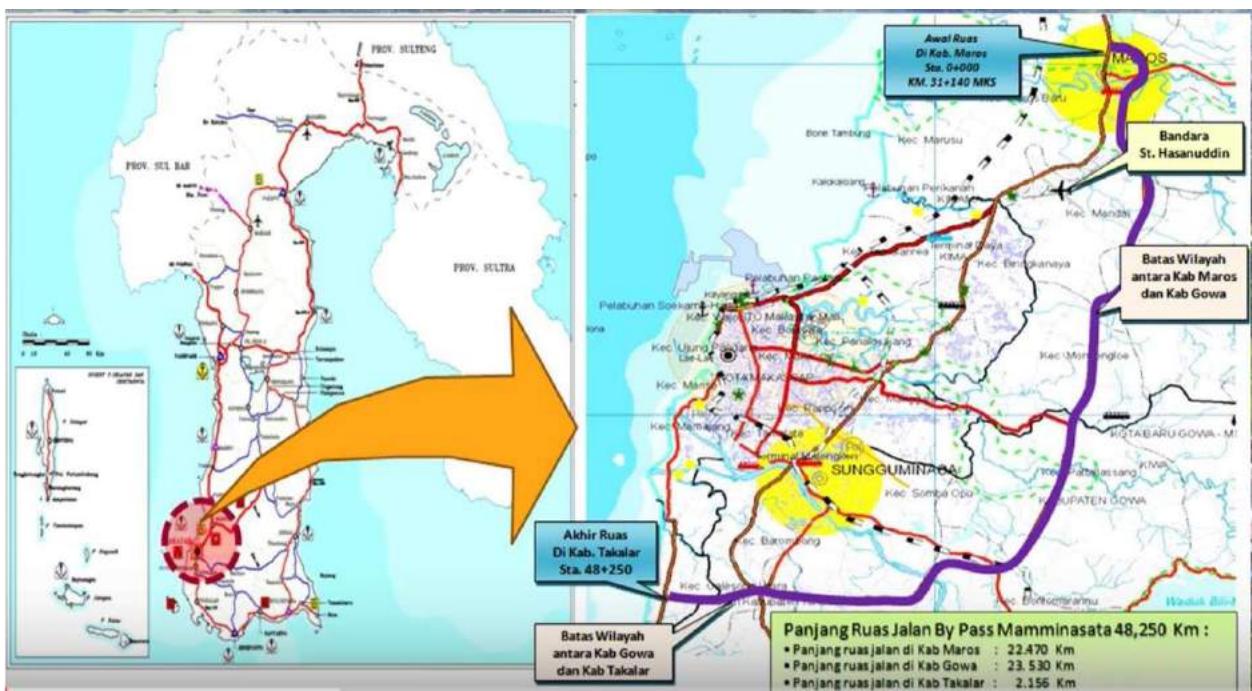
Sector : Road	Sub-Sector : Toll Road
 <p>The map shows the regional road network of South Sulawesi, with a highlighted purple line representing the Mamminasata Toll Road. An orange arrow points from the regional map to a detailed inset map of the toll road route, which spans approximately 48 km between Maros Sub-district and Takalar Sub-district.</p>	<p><b>Description:</b> The project is to construct approximately 48 Km of Mamminasata toll road. This Toll Road will connect Maros Sub-district and Takalar Sub-district without passing through Makassar City and expected to shorten the logistics path between the two regions. Mamminasata Toll Road is planned to have 4 interchanges with trumpet interchange type.</p>
<p><b>Government Contracting Agency:</b> Minister of Public Works and Housing</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Under Review</p>	<p><b>Estimated Project Cost:</b> USD 638.24 Million</p> <p><b>Financial Feasibility:</b> IRR : 12,21% NPV : USD 55.44 Million</p> <p><b>Estimated Concession Period:</b> 40 years</p>



## Project Digest

<b>Project Title</b>	Makassar-Maros-Sungguminasa-Takalar Toll Road
<b>Government Contracting Agency</b>	Minister of Public Works and Housing
<b>Implementing Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Preparation Agency</b>	Indonesia Toll Road Authority (BPJT)
<b>Project Cost</b>	USD 638.24 Million
<b>Estimated Concession Period</b>	40 Years
<b>Location</b>	South Sulawesi

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Maps of Mamminasata Toll Road

### 2. The Opportunity

#### 2.1. Project Background

The Mamminasata Bypass road (approximately 48 Km) has begun construction since 2015 and is still constrained by several things, one of which is land availability. Therefore, there is a plan to raise the status of this road to be a toll road in order to accelerate its development and the PPP scheme is expected to be a solution.

This Toll Road which connect Maros Sub-district and Takalar Sub-district without passing through Makassar City, will shorten the logistics path between the two regions, so that it will have a positive impact on the economies of both regions.

## **2.2. Project Description**

Mamminasata is a urban area consisting of Makassar, Maros, Sungguminasa, and Takalar. This Toll Road will connect Maros Sub-district and Takalar Sub-district without passing through Makassar City. It is planned to have four interchanges with trumpet interchange type.

## **2.3. Project Objectives**

The objectives of Mamminasata is to are as follows:

1. To shorten the logistics path between Maros Sub-district and Takalar Sub-district;
2. To increase economic in both Maros Sub-district and Takalar Sub-district; and
3. To support traffic flow in Makassar City.

## **3. Business Entity's Scope of Work**

Design – Finance – Build – Operate – Transfer

Business entity shall responsible to perform the toll road project, including design, construct, finance, operate, maintain during the concession period, and transfer the asset to the government in the end of the concession period.

## **4. Technical Specification**

The length of this toll road is 48.123 km. The technical specifications for toll roads will refer to Minister of Public Works and Housing Regulation Number 19 Year 2011. Some technical specifications including:

1. Design speed
2. Number of Lane
3. Lane Width
4. Outer Shoulder Width
5. Inner Shoulder Width
6. Median Width

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents will be prepared by the Government Contracting Agency.

## **6. Land Acquisition and Resettlement Action Plan**

The information related to the land acquisition and resettlement planned to be provided in subsequent studies.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 638.24 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		<b>70%</b>
- <b>Equity Level</b>		<b>30%</b>
<b>IRR</b>		<b>12.21%</b>
<b>NPV</b>		<b>USD 55.44 Million</b>

## **8. Government Support and Guarantee**

Outline business case study indicates possible business model options, user charge with government support or availability payment (AP). The government support identified in this OBC study are Viability gap fund (VGF) and construction support from Ministry of Public Works and Housing. The business model selected and the need for government support shall be provided in subsequent studies.

## **9. Contact Information**

Name : Denny Firmansyah

Position : Head of Investment Division

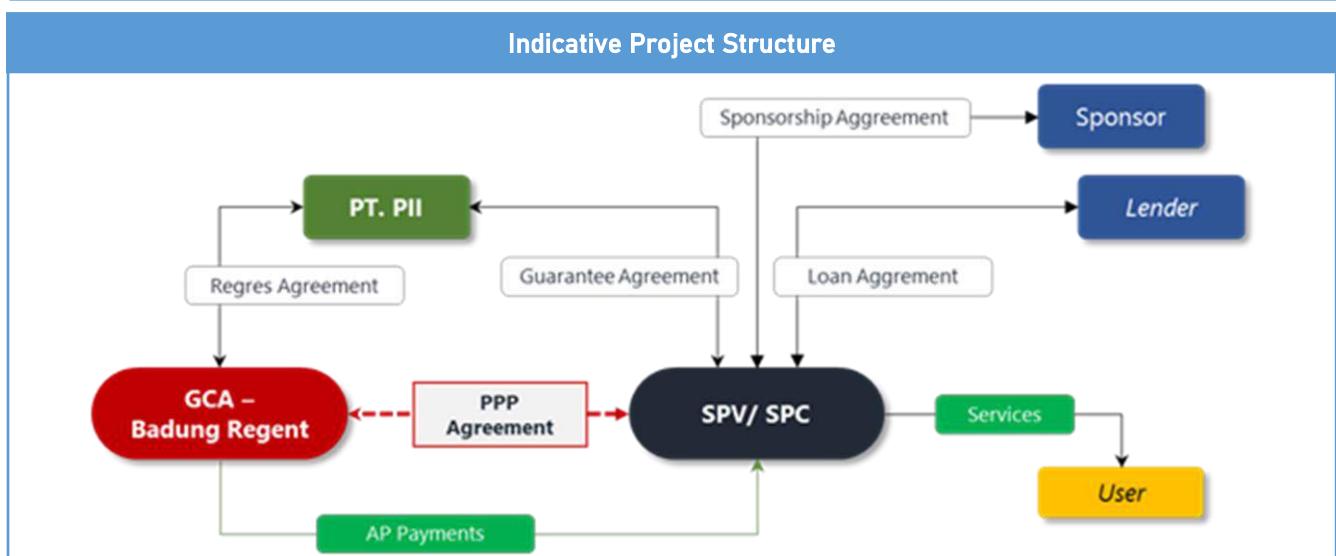
Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

## CONSTRUCTION OF BADUNG SOUTHERN RING ROAD

Location : Badung, Bali Province

Sector : Road	Sub-Sector : Non-Toll Road
	<p><b>Description:</b> The role of the ring road (11.5 km) is to improve connectivity between regions with different functions in South Badung, which can then lead to an increase in the quality of the area in accordance with its function. The various potentials of both developing new tourism areas and reviving local community commodities, including arts and culture, are the reasons for this southern ring road development plan.</p> <p><b>Estimated Project Cost:</b> USD 315 Million (Option 1), USD 142.8 Million (Option 2)</p> <p><b>Financial Feasibility:</b> IRR : 11.68% (Option 1), 12.07% (Option 2) NPV : USD 36 Million (Option 1), USD 18.62 Million (Option 2)</p> <p><b>Estimated Concession Period:</b> 15 years</p>
<p><b>Government Contracting Agency:</b> Regent of Badung</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Availability Payment</p>	



## Project Digest

Project Title	Badung Southern Ring Road
Government Contracting Agency	Regent of Badung
Implementing Agency	Public Works and Spatial Planning Agency, Badung Regency
Preparation Agency	National Development Planning Agency
Project Cost	USD 315 Million (Option 1) USD 142.80 Million (Option 2)
Estimated Concession Period	15 years
Location	Badung, Bali

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Maps of Badung Southern Ring Road

### 2. The Opportunity

#### 2.1. Project Background

Based on Badung Regency Regulation No. 26 of 2013 concerning Regional Spatial Planning of Badung Regency, the purpose of the spatial planning is to establish Badung Regency as a Center for National Activities and high quality international tourism destinations, which are competitive through the synergy of North Badung, Central Badung and South Badung regions development in a sustainable manner, based on agricultural activities, services and tourism towards community welfare as the implementation of the Tri Hita Karana philosophy. One of the strategies to improve the quality of tourism supported by international standard regional infrastructure systems is to provide international standard infrastructure and develop integrated transportation network systems. This then becomes the basis of the planned south ring road development which is located in the District of South Kuta, Badung Regency.

The role of the ring road is to improve connectivity between regions with different functions in South Badung, which then can lead to an increase in the quality of the area in accordance with its function. As stated in the Badung Regency Regulation No.26 of 2013 concerning RTRW of Badung Regency in 2013 - 2033, the Regional Arrangement of Badung Regency aims to establish the regency area as a National Activity Center and as a high quality, competitive and cultural tourism destination for international tourism. The various potentials of both developing new tourism areas and reviving local community commodities, including arts and culture, are the reasons for this southern ring road development plan.

## 2.2. Project Description

The total length of this ring road approximately will be 31.3 km and divided into 4 segments. The options of Badung Southern Ring Road project scope then will be listed below:

1. Pavement in all Segment
2. Tunnel Construction at Segment 2
3. Elevated Construction at Segment 2
4. Road infrastructure facilities (public road lighting, walkways, traffic signs, road markings, traffic signal devices, road user control and safety devices, road monitoring and security equipment, and road parks).

PPP Scope Project	Option 1	Option 2
1. Segmen to be build	1,2,3 & 4	2 & 4
2. Pavement (AC-BC and AC-WC)		
ROW 10 m	7.8 km	1.0 km
ROW 24 m	18.9 km	9.2 km
Total Length	26.7 km	11.5 km
3. Tunnel Works	3 km	1.0 km
4. Elevated Works	1.6 km	1.6 km

## 2.3. Project Objectives

The project aims to:

1. Reducing the impact of congestion on several roads
2. Become an alternative connection to the tourism areas
3. Increasing number of tourist and regional income of Badung Regency
4. Cultivate tourist attraction and empower the potential of local's product and arts.

## 3. Business Entity's Scope of Work

Private partners shall be responsible for constructing and procuring some facilities to accomplish the required facilities and infrastructure. The following are private partner's list of responsibilities:

1. Construction of
  - Pavement at Segment 1,2, 3 & 4
  - Tunnel Construction at Segment 2
  - Elevated Construction at Segment 2

- Road infrastructure facilities (public road lighting, walkways, traffic signs, road markings, traffic signal devices, road user control and safety devices, road monitoring and security equipment, and road parks)
2. Operation and Maintenance of
    - Pavement at Segment 1, 2, 3 & 4
    - Tunnel Construction at Segment 2
    - Elevated Construction at Segment 2
    - Road infrastructure facilities (public road lighting, walkways, traffic signs, road markings, traffic signal devices, road user control and safety devices, road monitoring and security equipment, and road parks).

#### **4. Technical Specification**

Badung Southern Ring Road main scope for technical specification are:

1. Pavement with specification of AC-BC (Asphalt Concrete – Binder Coarse) and AC-WC (Asphalt Concrete – Wear Coarse) both for ROW 24 m and 10 m
2. Tunnel Construction with TBM (Tunnel Bored Machine) Method
3. Elevated Construction either Balanced Cantilever using Box Girder, or Launch Gantry using Box Girder, or using PCI Girder

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

According to the Minister of Environment and Forestry Regulation 38/2019, the Badung Southern Ring Road area required to have Environmental Impact Assessment (EIA / "AMDAL") type A. This type has high complexity of project scope, high sensitivity of project location, and high complexity of environmental baseline condition needed. This EIA development has maximum time of 60 days.

#### **6. Land Acquisition and Resettlement Action Plan**

Until now, the land that has been acquired by the Badung Regency Government as a PJPK for the PPP project has only reached Segment 1, and in the future land acquisition will be carried out for Segments 2, 3 and 4. Thus, the Land Acquisition and Resettlement Action Plan (LARAP) is not required in this project due to the availability of land.

#### **7. Project Cost Structure**

Estimated Project Cost	USD 315 Million (Option 1)	USD 142.80 Million (Option 2)
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>	70%*	70%*
- <b>Equity Level</b>	30%*	30%*
<b>IRR</b>	11.68%*	12.07%*
<b>NPV</b>	USD 36 Million*	USD 18.62 Million*

\*to be confirmed in FBC

## **8. Government Support and Guarantee**

The indicative Government support for Badung Southern Ring Road listed in the following points:

1. Tax incentive from the government, Corporate income tax reduction for private sector
2. Project Development Facility (PDF) to develop Final Business Case (FBC) from the Ministry of Finance
3. Guarantee of payment failure from Government Contracting Agency (GCA) to the private sector by the Indonesia Infrastructure Guarantee Fund (IIGF)

## **9. Contact Information**

Name : Ida Bagus Surya Suamba

Position : Head of Regional Public Works and Spatial Planning, Badung Regency

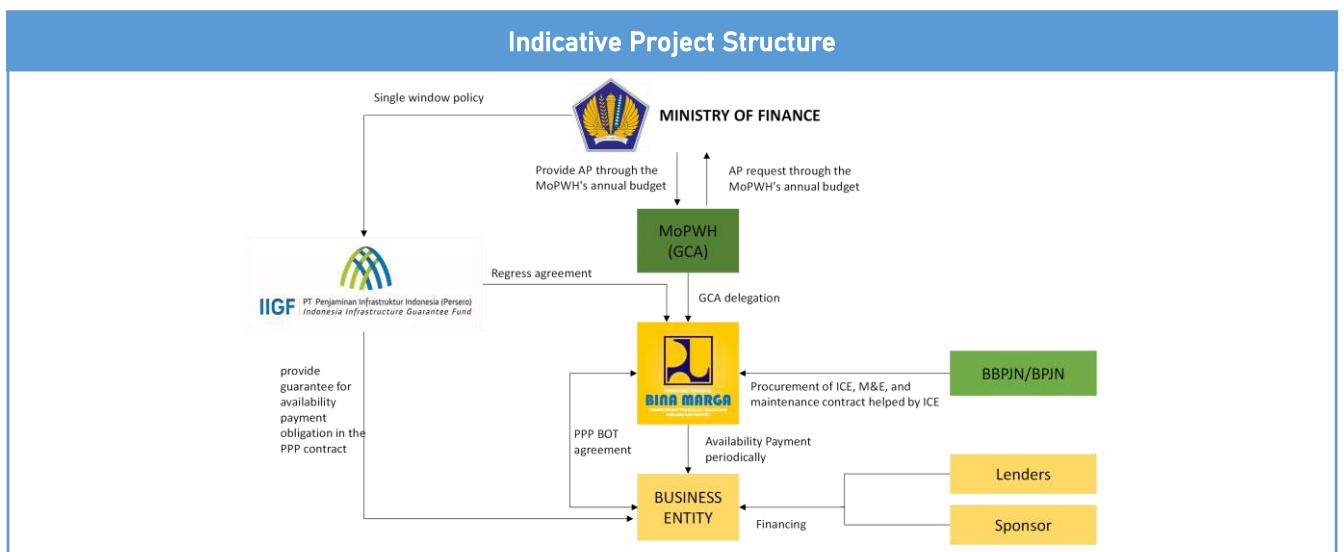
Phone : (0361) 9009401

Email : [diskominfo@badungkab.go.id](mailto:diskominfo@badungkab.go.id)

# DUPLICATION AND/OR REPLACEMENT OF CALLENDER HAMILTON BRIDGES IN JAVA ISLAND MAIN ROAD

Location : Java Region

Sector : Road	Sub-Sector : Non-Toll Bridge
 <p><b>Legend:</b>      — Regency Boundary      - Provincial Boundary      - National Road      ⚡ CI Bridge</p>	<p><b>Description:</b>          This project is to replace and/or duplicate 38 Callender Hamilton Bridges in the Java Island Main Road. The location of the bridges is on the national road connecting the provincial capital and are the main logistics route to Sumatera Island in order to increase national economic activity. There are bridges in Banten, in West Java, in Central Java, and East Java. The PPP scheme used is Build – Operate – Transfer with Availability Payment.</p>
<p><b>Government Contracting Agency:</b>          Minister of Public Works and Housing</p> <p><b>Type of PPP:</b>          Solicited</p> <p><b>Return of Investment:</b>          Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 188.38 Million</p> <p><b>Financial Feasibility:</b>          IRR : 11.49%          NPV : USD 2.85 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>



## Project Digest

<b>Project Title</b>	Duplication And/Or Replacement of Callender Hamilton Bridges In Java Island Main Road
<b>Government Contracting Agency</b>	Minister of Public Works and Housing
<b>Implementing Agency</b>	Director General of Highways
<b>Preparation Agency</b>	Director General of Highways
<b>Project Cost</b>	USD 188.38 Million
<b>Estimated Concession Period</b>	15 Years
<b>Location</b>	Java Region

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Location of Callender Hamilton Bridges in Java Island



Picture 2 – Existing Callender Hamilton Bridge in Java Island

## **2. The Opportunity**

### **2.1. Project Background**

The development of national connectivity needs to be done in order to improve the social welfare and Indonesia's competitiveness in the international market. The limited National Budget (APBN) becomes an obstacle to the provision of Callender Hamilton Bridge Replacement and Duplication, both for preservation of existing sections and for the new road construction. To overcome these budget limitations, a PPP scheme is needed. The location of Callender Hamilton Bridges Replacement and Duplication with PPP Scheme are on the national road connecting the provincial capital and are the main logistics route to Sumatera Island in order to increase national economic activity.

### **2.2. Project Description**

This project is to replace and duplicate Callender Hamilton Bridges in the Java Island Main Cross Road. The location of Callender Hamilton Bridges Replacement and Duplication with PPP Scheme are on the national road connecting the provincial capital and are the main logistics route to Sumatera Island. There are as follows:

1. Bridge in Banten Province;
2. Bridge in West Java Province;
3. Bridge in Central Java Province; and
4. Bridge in East Java Province.

The Replacement and Duplication of 38 Hamilton Callender Bridges will be carried out in one work package. The estimated project cost is 188.38 million USD which is expected to be fully funded by the Business Entity. Project financing scheme is the Availability Payment where the payment is payed after the fulfillment of output specification until the end of concession period.

### **2.3. Project Objectives**

The objectives of Callender Hamilton Bridges Replacement and Duplication are as follows:

1. To increase national economic activity;
2. To support the function of roads as the backbone of regional economic development; and
3. To facilitate a reliable regional transportation system.

## **3. Business Entity's Scope of Work**

Build – Operate - Transfer

Business entity's scope of work are as follows:

1. To renovate the entire road (it can be in several milestone stages or in one stage) until meet the output specification;
2. To maintain roads regularly and periodically to meet output specifications; and
3. To ensure the roads are in a good condition (Baik dan Mantap) at the end of concession period.

#### **4. Technical Specification**

The number of Hamilton Callender Bridges to be replaced and/or duplicated are 38 bridges. Replacement and/or duplication bridge will use steel box girder for span length > 40 meters and PCI girder for span length < 40 meters.

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

EIA/Amdal document requirement will be analyzed in subsequent studies.

#### **6. Land Acquisition and Resettlement Action Plan**

The total land requirement for this project is 4,73 Ha. The study indicates the implementation of land acquisition will be carried out by government.

#### **7. Project Cost Structure**

Estimated Project Cost		USD 188.38 Million
Indicative Debt to Equity Ratio		
-	Debt Level	70%
-	Equity Level	30%
IRR		11.49%
NPV		USD 2.85 Million

#### **8. Government Support and Guarantee**

The project is expected to get guarantees from IIGF for political and regulatory risks and the risk of payment and adjustments to the AP value. It is expected that the preparation of the feasibility study can be assisted by Ministry of National Development Planning and the Ministry of Finance.

#### **9. Contact Information**

Name : Erna Verawati Hutagalung

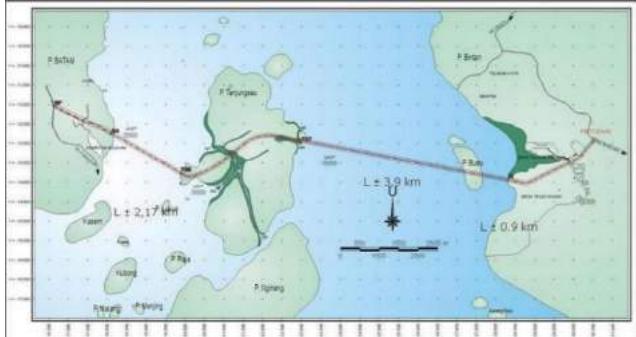
Position : Head of Investment Cooperation Section

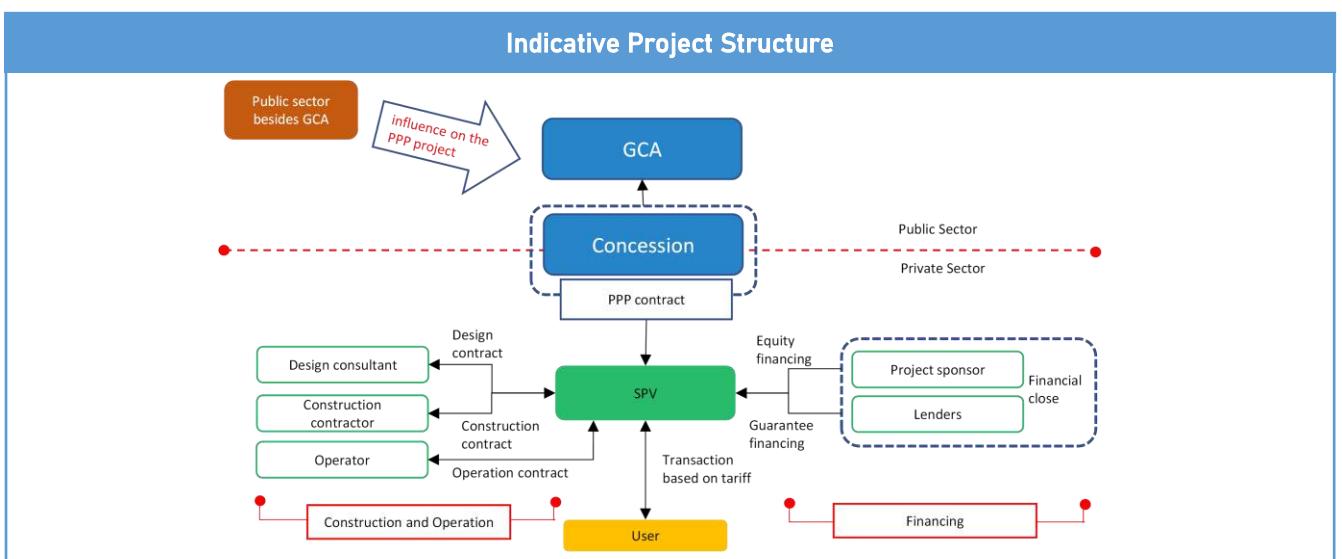
Phone : +62 878-7810-1175

Email : verawatihutagalung1@gmail.com

## BATAM-BINTAN BRIDGE

Location : Riau Islands Province

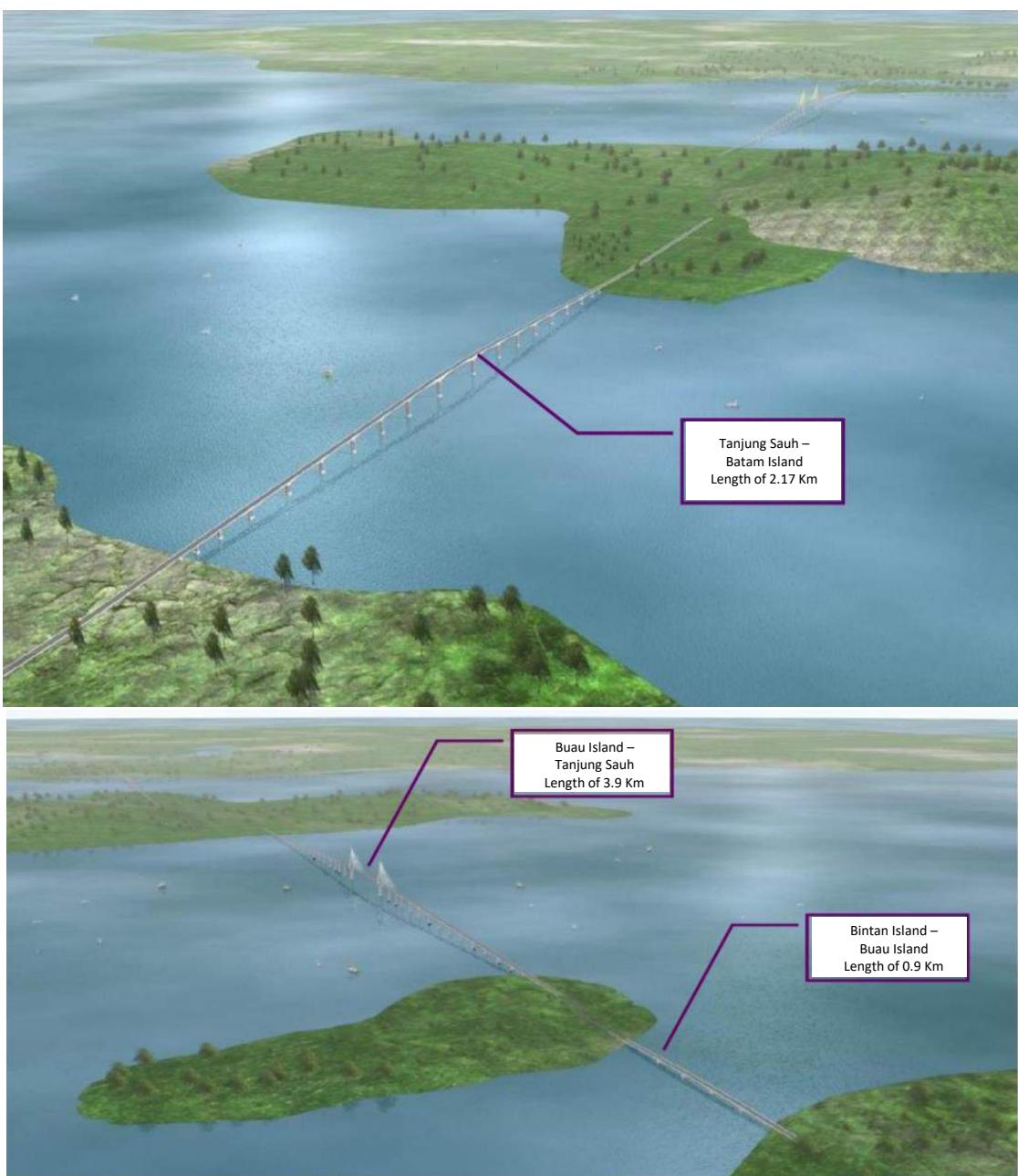
Sector : Road	Sub-Sector : Toll Bridge
	<p><b>Description:</b> This project is to construct a bridge connecting Batam and Bintan which located in Riau Islands province. the project is expected to use a PPP scheme with user charge as return of investment scheme.</p>
<p><b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	<p><b>Estimated Project Cost:</b> USD 609.69 Million</p> <p><b>Financial Feasibility:</b> IRR : 10.80% NPV : -</p> <p><b>Estimated Concession Period:</b> 40 years</p>



## Project Digest

Project Title	Batam-Bintan Bridge
Government Contracting Agency	Indonesia Toll Road Authority (BPJT)
Implementing Agency	Indonesia Toll Road Authority (BPJT)
Preparation Agency	Directorate General of Public Works Infrastructure and Housing Financing (DJPI)
Project Cost	USD 609.69 Million
Estimated Concession Period	40 years
Location	Riau Islands Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Batam-Bintan Bridge Plan

## **2. The Opportunity**

### **2.1. Project Background**

Connectivity is one of the most important things in growing economic activities. Batam is planned to be developed into a national industrial zone and Batam as a Free Trade Zone (FTZ) area with major advantages in the field of trade and industry. Batam is also a strategic area which is near Singapore and Malaysia. Bintan Island is also a strategic area and also as a Free Trade Zone (FTZ) area. This project will be built with PPP scheme.

### **2.2. Project Description**

This project is to construct a bridge connecting Batam and Bintan which located in Riau Islands Province. This bridge alignment is Kabil (Batam) – Tanjung Sauh – Buau Island – Kuala Lobam (Bintan). Road length is 6,974 m and bridge length is 7,783 m. The Batam-Bintan Bridge Construction Project is included in toll road infrastructure, and also one of the infrastructures that can be conducted with PPP financing schemes with user charge as a return of investment scheme. The scope of work for the business entity will be Build-Operate-Transfer (B-O-T). The study has indicated that this project needs Government support in terms of partial construction from the Ministry of Public Works and Housing and Government guarantee by Indonesia Infrastructure Guarantee Fund (IIGF).

### **2.3. Project Objectives**

The objectives of this project to support the development and accessibility of Batam and Bintan in order to increase to increase trade and industries in Batam and Bintan.

## **3. Business Entity's Scope of Work**

The scope of work for the business entity will be Build-Operate-Transfer (B-O-T). The following are private partner's list of responsibilities:

- 1) Designing a Detailed Engineering Design (DED) of the Batam-Bintan Bridge Construction Project based on the basic design provided by GCA;
- 2) Construction of the Batam-Bintan Bridge;
- 3) Maintenance of the Batam-Bintan Bridge during the concession period, after the construction phase has been completed; and
- 4) Sign and commit in the Guarantee Agreement with PT. Indonesia Infrastructure Guarantee (Persero).

## **4. Technical Specification**

The Batam-Bintan Bridge operation will be used as a toll road with dedicated motorcycle lanes thus the technical specifications will refer to all regulations and specifications in the geometric planning of roads (main road, ramp and access road). Some technical specifications for the main road including:

No	Facilities	Capacity
1	Bridge Length	7,783 m
2	Road Length	6,974 m

No	Facilities	Capacity
3	Design Speed	80 Km/hr
4	Number of Lane	2 x 2
5	Lane Width	3.6 m
6	Outside Shoulder Width	3.0 m
7	Inner side Shoulder Width	1.5 m
8	Median Width (include inner side shoulder)	4.0 m
9	Cross slope	2%
10	Outside Shoulder slope	4%

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The study has indicated that this project needs Environmental Impact Assessment (EIA/AMDAL) which is the responsibility of Ministry of Public Works and Housing. It also indicated the needs of the Environmental Support and Capacity Study (*Kajian Daya Dukung dan Daya Tampung Lingkungan Hidup/DDDTLH*) which is the responsibility of Riau Islands Government. AMDAL and DDDTLH will be prepared in 2020.

## 6. Land Acquisition and Resettlement Action Plan

The study has indicated that this project needs land acquisition of 701,665.31 m<sup>2</sup>. Land acquisition is purposed to be done in 2021.

## 7. Project Cost Structure

Estimated Project Cost	USD 609.69 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
IRR	10.80%
NPV	-

## 8. Government Support and Guarantee

The study has indicated that this project needs Government support in terms of partial construction from the Ministry of Public Works and Housing and Government guarantee by Indonesia Infrastructure Guarantee Fund (IIGF).

## 9. Contact Information

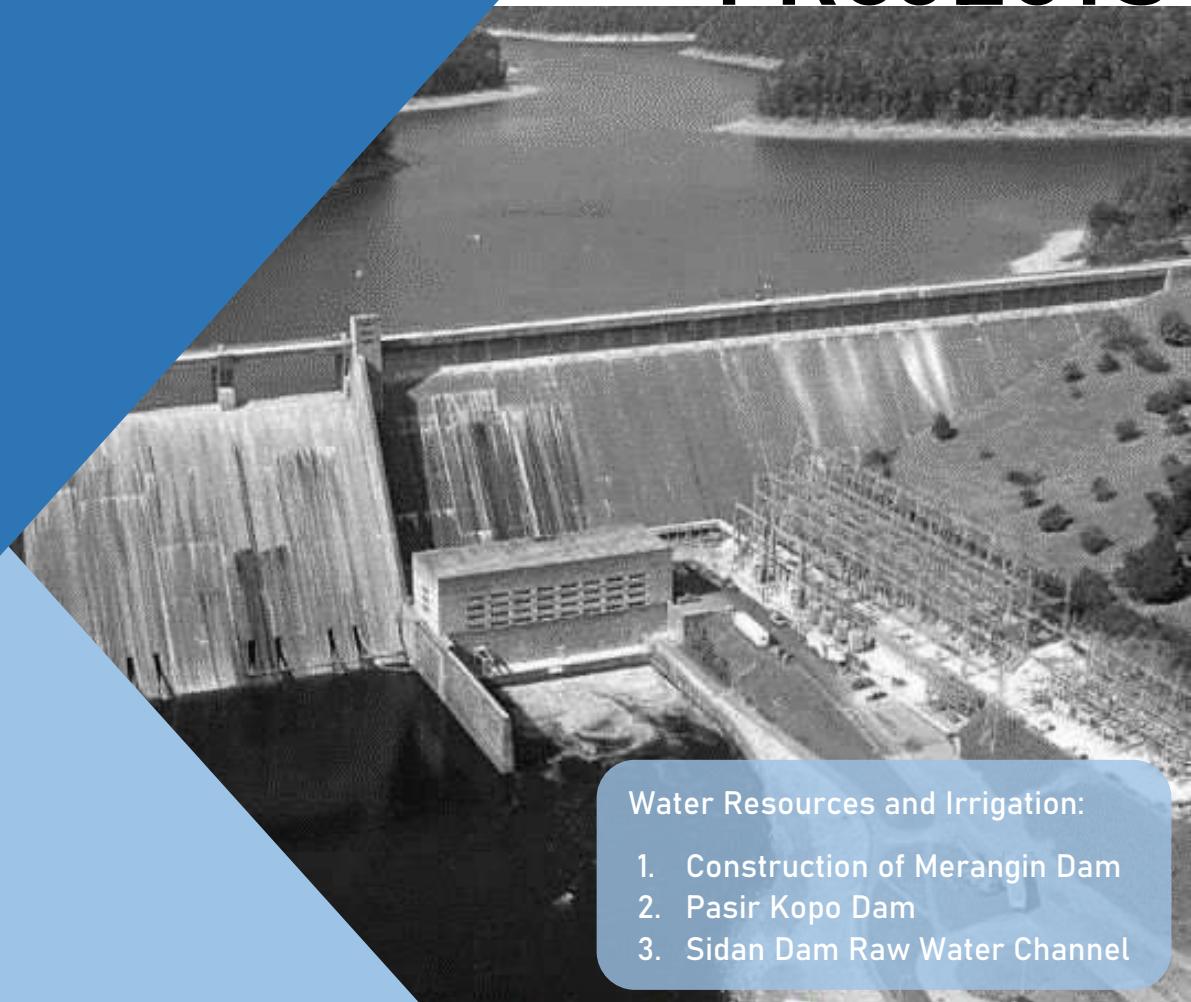
Name : Denny Firmansyah

Position : Head of Investment Division

Phone : +6221 - 7258063

Email : bpjt@pu.go.id or investasi.bpjt@gmail.com

# **UNDER PREPARATION PROJECTS**



## **Water Resources and Irrigation:**

1. Construction of Merangin Dam
2. Pasir Kopo Dam
3. Sidan Dam Raw Water Channel

## CONSTRUCTION OF MERANGIN DAM

Location : Merangin, Jambi Province

### Sector : Water Resources and Irrigation



### Sub-Sector : Water Storage Infrastructure, Dam

#### Description:

The program has been prepared with the support of Bappenas and the Ministry of Public Works and Housings ("PUPR"). The program is expected to generate economic, social, environmental, water management and livelihood benefits for the people of the Merangin Regency and Jambi Province, as well as to enhance food and energy security and boost economic growth on the Jambi Province.

Description	Option 1	Option 2a	Option 2b	Option 2c	Option 3
<b>Estimated Project Cost</b>	USD 242.85 million	USD 331.32 million	USD 331.32 million	USD 339.87 million	USD 339.87 million
<b>Indicative Project Financial Feasibility:</b>					
<b>FIRR</b>	11.11%	12.15%	13.43%	13.38%	13.38%
<b>NPV</b>	USD 20.37 million	USD 58.37 million	USD 51.38 million	USD 55.17 million	USD 55.17 million

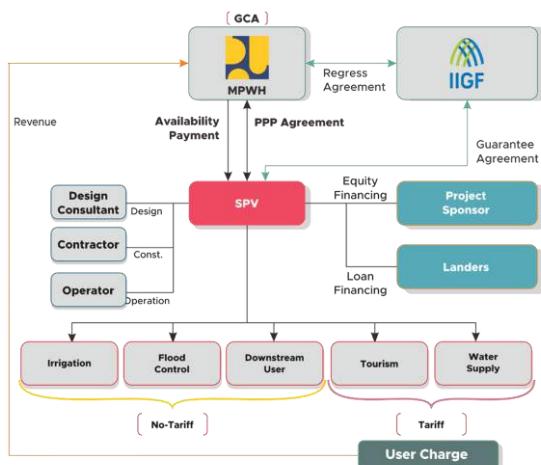
Estimated Concession Period: 30 years

### Indicative Project Schedule



Project Status : Outline Business Case

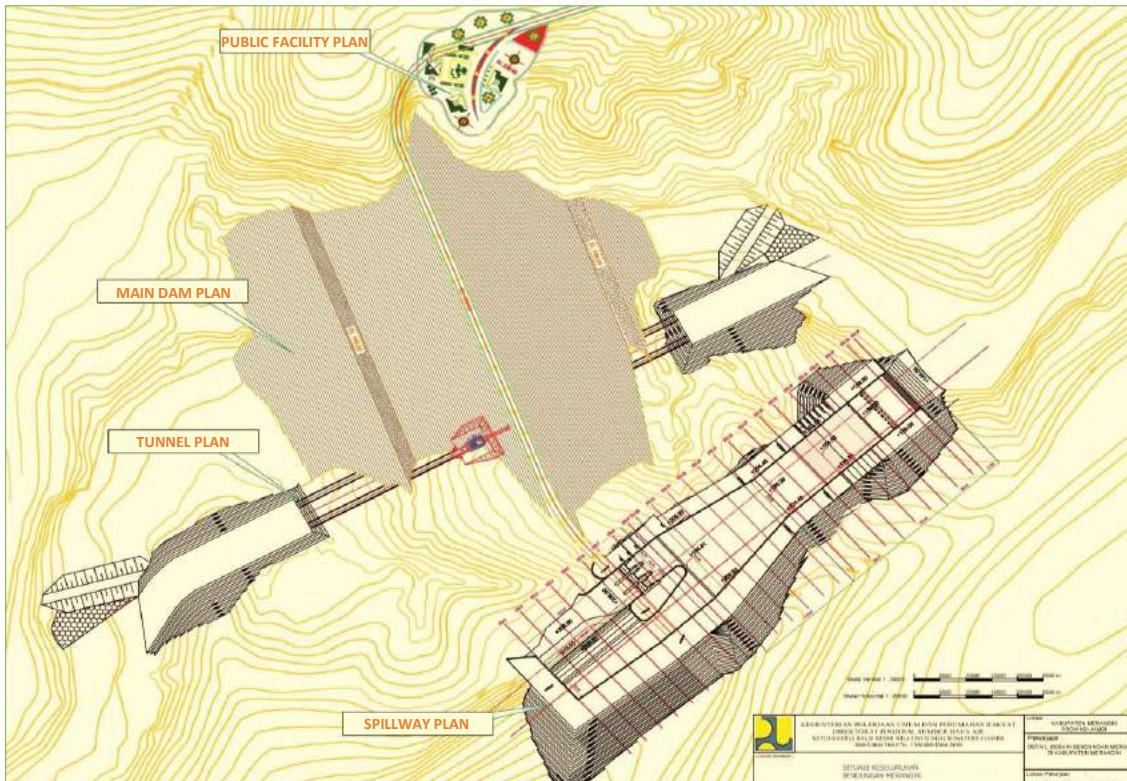
### Indicative Project Structure



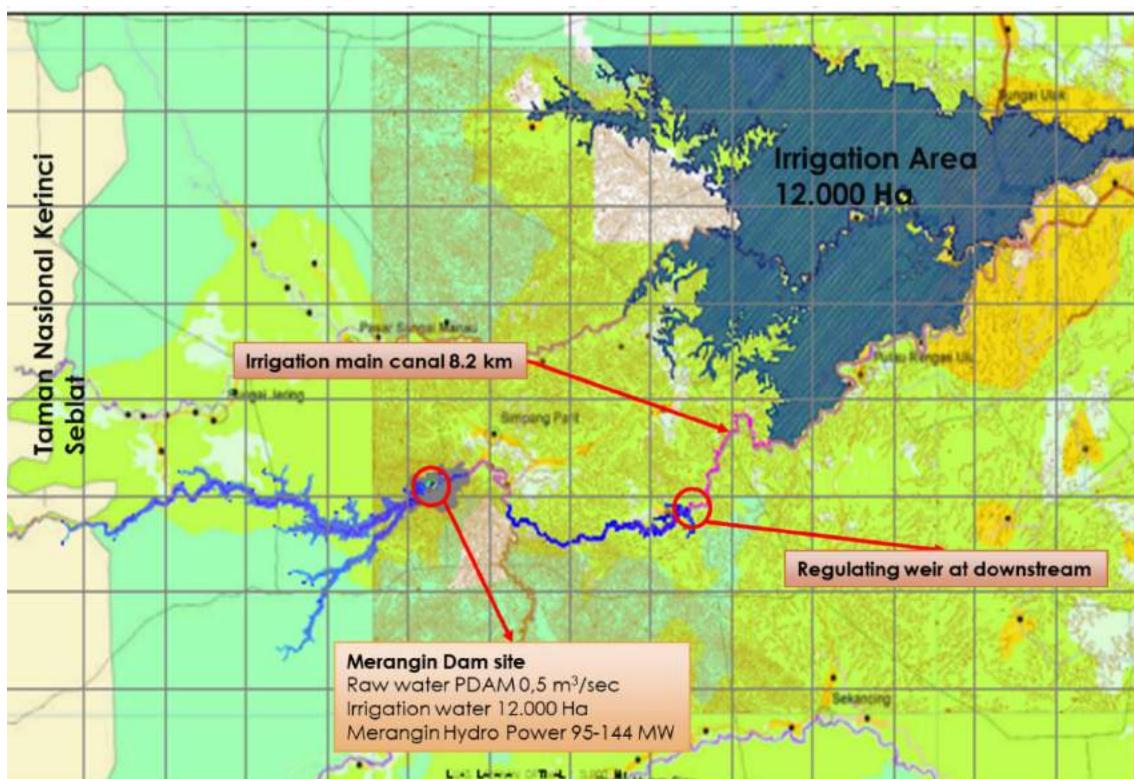
## Project Digest

Project Title		Construction of Merangin Dam
<b>Government Contracting Agency</b>	Minister of Public Works and Housings	
<b>Implementing Agency</b>	Directorate General of Infrastructure Financing for Public Works and Housing	
<b>Preparation Agency</b>	National Development Planning Agency (Bappenas)	
<b>Project Cost</b>	<ul style="list-style-type: none"> <li>• Option 1, Dam Only: USD 242.85 million</li> <li>• Option 2:           <ul style="list-style-type: none"> <li>a. Dam + Hydropower Plant 95 MW (AP): USD 331.32 million</li> <li>b. Dam + Hydropower Plant 95 MW (VGF): USD 331.32 million</li> <li>c. Dam + Hydropower Plant 107.45 MW (VGF): USD 339.87 million</li> </ul> </li> <li>• Option 3, Dam + Hydropower Plant 107.45 MW: USD 339.87 million</li> </ul>	
<b>Estimated Concession Period</b>	Design – Build – Finance – Operate – Maintenance – Transfer (DBFOMT)	
<b>Location</b>	<ul style="list-style-type: none"> <li>• Design, Construction including water impounding: 5 years</li> <li>• Operation &amp; Maintenance: 30 years</li> </ul>	
	Merangin Regency, Jambi Province 2° 9'36.94"LS and 102° 1'8.20 BT	

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Merangin Dam



**Picture 2 – Map of Merangin Dam**

## 2. The Opportunity

### 2.1. Project Background

Irrigation sector is the largest water user in Indonesia but it only uses 12% of the average annual flow. In line with the new Law on Water Resources No 17/2019, that Central Government has policies and plans to expand irrigation areas to increase rice production, to respond to food security needs and to address rural poverty. Irrigation system can be expected to reduce the risk of crop damage from water shortages in the wet season and expand cropping area in the dry season. Climate change is predicted to affect the future supply and demand for water resources. Climate change will increase the intensity and duration of droughts as well as the frequency of extreme floods especially in Merangin Regency since year 2000's due to the Merangin upper catchment area's (a tributary of Batanghari River) unsustainable land use which is driving land degradation, which in the form of soil erosion, nutrient depletion, water scarcity and disruption of biological cycles is a fundamental and persistent problem, diminishing productivity, biodiversity, other ecosystem services, and contributing to climate change effect.

The proposed of Merangin multipurpose dam is considered to meet high demand of new agriculture irrigation area of 12,000 ha in order to address the impacts of climate change on the reliability of water supply as well as to mitigate flood risks, health, agriculture, energy generation and aquatic ecosystems as well as renewable energy needs in a green and sustainable manner.

### 2.2. Project Description

The PPP Merangin Multipurpose program has been prepared with the support of Bappenas and the Ministry of Public Works and Housings ("PUPR"). The program is expected to generate

economic, social, environmental, water management and livelihood benefits for the people of the Merangin Regency and Jambi Province, as well as to enhance food and energy security and boost economic growth on the Jambi Province. The program is envisaged to be developed through the use of a public-private partnership (PPP) approach as stipulated by the Presidential Decree No. 13/2015.

The US\$ 253.07 million program involves a PPP scheme with a DBFOMT modality includes financing, designing and building, operating and maintaining a multipurpose dam to provide water for an irrigation scheme covering about 12,000 hectares in Merangin Regency, control floods about 200 m<sup>3</sup>/sec in the Bangko town as the capital of Merangin Regency and other populated areas in the lower part of the Merangin basin, impound water for a 95 - 144 MW hydro power plant. Other components of the program include local water supply, recreation, and social infrastructure. Land acquisition of ± 900 ha will be provided by the Government.

There are 3 option in this project development, as follows:

1. Option 1, Single GCA (Dam Only). Using Availability Payment scheme to cover the private's investment, risks and returns
2. Option 2, Single GCA (Dam + Hydropower Plant 95/107,45 MW). Using Availability Payment scheme in option 2a to cover the private's investment, risks and returns. There is also another possibility to request VGF (Option 2b & 2c) in order to reduce Capex and to enhance the Project Bankability, investment return scheme through electricity sales tariffs for 30 years.
3. Option 3, Bundling GCA (Dam + Hydropower Plant 107,45 MW). Using Viability Gap Funding, Investment return scheme through electricity sales tariffs for 30 years

### 2.3. Project Objectives

The main objective of the Merangin Multipurpose Dam project is to foster the socio-economic development in the Merangin Regency and Jambi Province as well as to contribute to the economic growth of the country. This objective can be achieved through the development of 12,000 ha of irrigated agriculture and to reduce floods of 200 m<sup>3</sup>/sec for the benefit of local farmers and stakeholders and by increasing food security and trade at the larger scale of the country. The Merangin dam also improves the resilience to climate change by regulating the flow of the Merangin River allowing a stable supply of fresh water, food and energy throughout the year.

In addition, the proposed Merangin Multipurpose Dam could produce a hydropower scheme, with an estimated annual production of the range 95 - 144 MW. It will provide a response to the challenge facing the state utility company Perusahaan Listrik Negara (PLN) electricity demand in Sumatra Island as well as consumers concerned about climate change are increasingly demanding that their electricity come from renewable sources; as both the national government and PLN are keen to increase the use of renewable energy, with a target of 23% renewable energy by year 2025 of the its primary energy needs from renewable sources, within the next six years, from 12% currently.

### 3. Business Entity's Scope of Work

The modality of PPP Merangin Multipurpose Dam scheme is "Design-Build-Finance-Operate – Maintain and Transfer" (D-B-F-O-M-T) as stipulated under the Indonesian Presidential Decree No. 13/2015.

The proposed PPP Merangin Multipurpose Dam's scope project of the following:

Option 1	Option 2a & 2b	Option 2c & 3
<ul style="list-style-type: none"> <li>• Maintenance and improvement for access road:           <ul style="list-style-type: none"> <li>- National road 7 km</li> <li>- Access Road (Simpang Parit – Dam Site) 4,5 km</li> <li>- National road to Quarry area 1,5 km</li> </ul> </li> <li>• Coffer Dam</li> <li>• Main Dam</li> <li>• Spillway</li> <li>• Intake</li> <li>• Hydro mechanical &amp; electrical</li> <li>• Supporting Facilities</li> <li>• Maintenance for inundation area</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance and improvement for access road:           <ul style="list-style-type: none"> <li>- National road 7 km</li> <li>- Access Road (Simpang Parit – Dam Site) 4,5 km</li> <li>- National road to Quarry area 1,5 km</li> </ul> </li> <li>• Coffer Dam</li> <li>• Main Dam</li> <li>• Spillway</li> <li>• Intake</li> <li>• Hydro mechanical &amp; electrical works</li> <li>• Supporting Facilities</li> <li>• Maintenance for inundation area</li> <li>• Generating Equipment (95 MW)</li> <li>• Transmission Line 150 kVA (20,8 km)</li> <li>• Telemetry, Sensor and SCADA system</li> <li>• Steel Supporting Facility           <ul style="list-style-type: none"> <li>- 4 Unit Steel Penstock Pipe Ø: 3.7 m</li> <li>- thickness: 16 mm, L: 78.56 m</li> <li>- thickness: 23 mm, L: 205.54 m</li> </ul> </li> <li>• Power House + Tailrace</li> <li>• 4 Unit Turbine: 4 x 23.75 MW</li> <li>• Overhead Crane 30 Ton</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance and improvement for access road:           <ul style="list-style-type: none"> <li>- National road 7 km</li> <li>- Access Road (Simpang Parit – Dam Site) 4,5 km</li> <li>- National road to Quarry area 1,5 km</li> </ul> </li> <li>• Coffer Dam</li> <li>• Main Dam</li> <li>• Spillway</li> <li>• Intake</li> <li>• Hydro mechanical &amp; electrical works</li> <li>• Supporting Facilities</li> <li>• Maintenance for inundation area</li> <li>• Generating Equipment (107,45 MW)</li> <li>• Transmission Line 150 kVA (20,8 km)</li> <li>• Telemetry, Sensor and SCADA system</li> <li>• Steel Supporting Facility           <ul style="list-style-type: none"> <li>- 4 Unit Steel Penstock Pipe Ø: 3.9 m</li> <li>- thickness: 16 mm, L: 78.56 m</li> <li>- thickness: 24 mm, L: 205.54 m</li> </ul> </li> <li>• Power House + Tailrace</li> <li>• 4 Unit Turbine: 4 x 26.875 MW</li> <li>• Overhead Crane 30 Ton</li> </ul>

### 4. Technical Specification

Basic Design features of the Merangin Multipurpose Dam is the following:

Length of crest dam	335 m	Effective inundation area	686,76 ha
Width of crest dam	15 m	Effective inundation volume	100,2 million m <sup>3</sup>
Height of main dam	84 m	Minimum inundation volume	75,0 million m <sup>3</sup>
Peak Elevation	+229m	Q <sub>PMF</sub> Elevation	EI+228 m

Spillway Elevation	+220 m	Flood Control Q 200 m <sup>3</sup> /sec and Q <sub>PMF</sub> 1,000-year return period
Irrigation flow allocation	16,8 m <sup>3</sup> /second	Average Flow allocation to turbine: 96.92m <sup>3</sup> /sec Option 2c, 3: 96,85 m <sup>3</sup> /sec

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

According to the Regulation of Minister of Environment and Forestry No. 38/2019, the proposed PPP Merangin Multipurpose Dam Project requires to have an Environmental Impact Assessment (EIA / "AMDAL") type A. Government has a plan to execute the EIA Study by year 2020 to identify anticipated environmental impacts of the proposed project. EIA scope includes but not limited to the following: (i) identification of potential mitigation measures and discussion of these with BWS Sumatra VI and others, so as to analyze practicality and likely cost; (ii) Finalization of recommended mitigation measures required during design, construction and operation of the project; (iii) Development of cost estimates of the mitigation measures; (iv) Preparation of a project-specific Environment Management Plan/ Mitigation Management Action Plan.

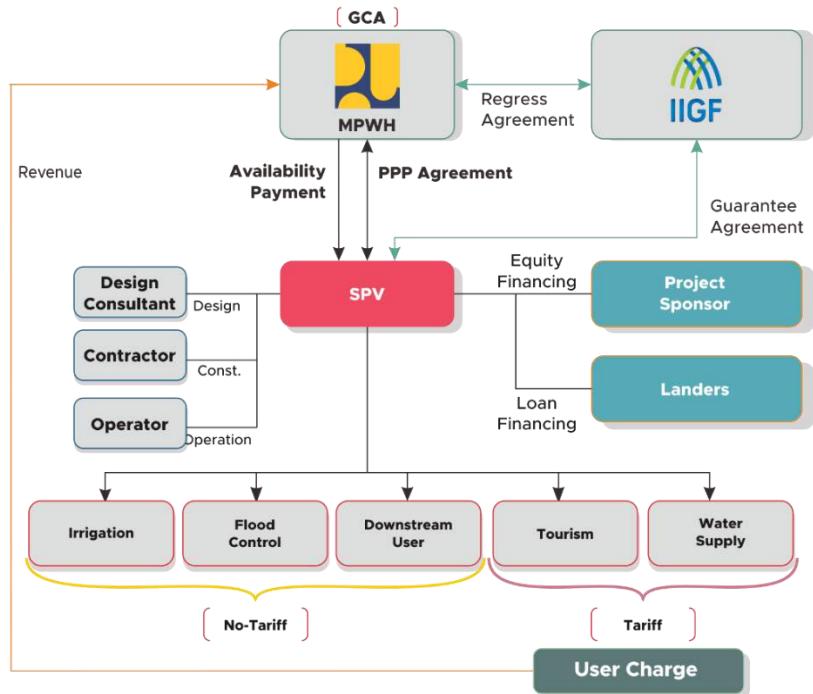
## 6. Land Acquisition and Resettlement Action Plan

The Government will conduct a LARAP Study on an area of ± 900 ha in year 2020 consisting of: (i) a Social Economic Surveys; (ii) a census of population to be affected by the project and preparation of desegregated data; (iii) identification of socio-economic impacts of the project to the stakeholders; (iv) carrying out of an aerial survey of the project area and cadastral survey of the land parcels to be affected and accompanying list of the registered land owners; and (v) determination of the land to be acquired and the tentative compensation values for both land, permanent, semi-permanent and temporary structures and both cash/subsistent crops.

## 7. Project Cost Structure

- Option 1 (Dam Only using Availability Payment)

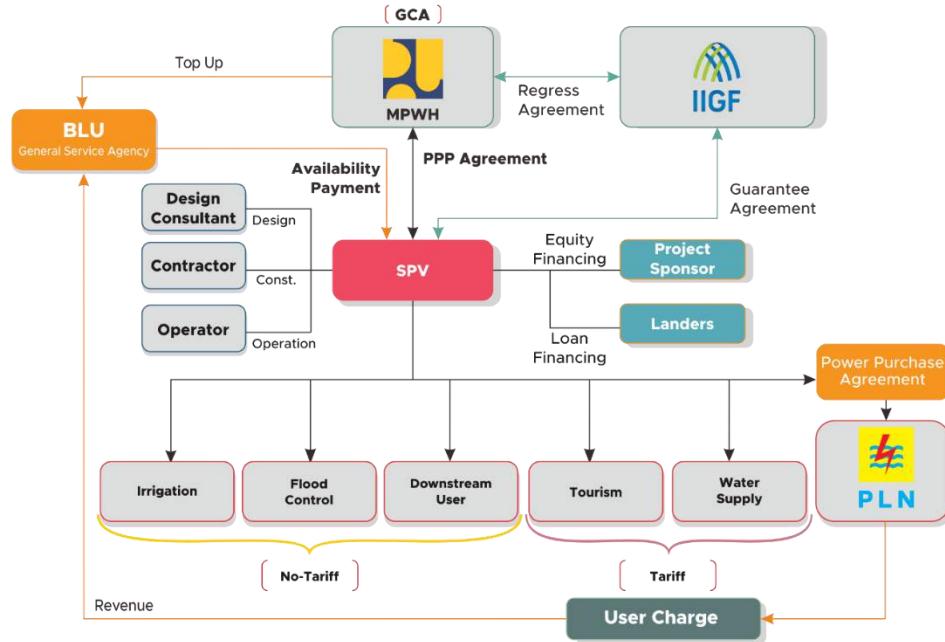
Description	Dam Only (using AP)
<b>Estimated Project Cost Capex</b>	USD 242.85 million
<b>Opex</b>	USD 1.76 million
<b>AP / year</b>	USD 61.4 million
Indicative debt to equity	(to be confirmed in FBC)
i. Debt Level	70%
ii. Equity Level	30%
<b>FIRR</b>	11.11%
<b>NPV</b>	USD 20.37 million
<b>Cost of Equity</b>	16.54%
<b>Cost of Debt (after tax)</b>	7.35%
<b>WACC</b>	10.11%
Using Availability Payment scheme to cover the private's investment, risks and returns as stipulated by the Minister of Finance Regulation Number 260/2016 as an amendment of the Ministry of Finance's Regulation Number 190/2015 regarding Availability Payment on PPP scheme Infrastructure Provision.	



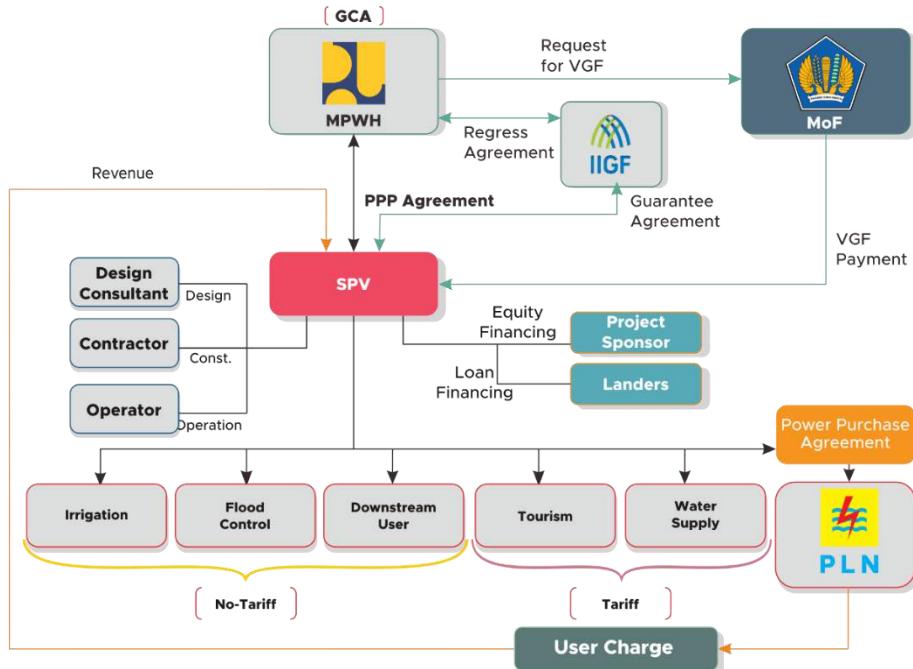
Picture 3 – PPP Project Structure (Option 1)

- Option 2 (Dam + Hydropower Plant 95/107.45 MW)

Description	Option 2a Dam + Hydropower Plant 95 MW (using AP)	Option 2b Dam + Hydropower Plant 95 MW (using VGF)	Option 2c Dam + Hydropower Plant 107,45MW (using VGF)
<b>Estimated Project Cost Capex</b>	USD 331.32 million	USD 340.77 million	USD 339.87 million
<b>VGF Estimated</b>	-	USD 134.03 million	USD 126.67 million
<b>Opex</b>	USD 4.07 million	USD 4.07 million	USD 4.17 million
<b>AP / year</b>	USD 34.96 million	-	-
<b>Revenue / year</b>		USD 48.68 million	USD 52.47 million
Indicative debt to equity i. Debt Level ii. Equity Level	(to be confirmed in FBC) 70% 30%	(to be confirmed in FBC) 70% 30%	(to be confirmed in FBC) 70% 30%
FIRR	12.15%	13.43%	13.38%
NPV	USD 58.37 million	USD 51.38 million	USD 55.17 million
Cost of Equity	16.54%	16.76%	16.76%
Cost of Debt (after tax)	7.35%	7.35%	7.35%
WACC	10.11%	10.17%	10.17%
Using Availability Payment scheme to cover the private's investment, risks and returns as stipulated by the Minister of Finance Regulation Number 260/2016 as an amendment of the Ministry of Finance's Regulation Number 190/2015 regarding Availability Payment on PPP scheme Infrastructure Provision.			
There is also using Viability Gap Fund (VGF) facility to subsidy some parts of construction costs of the future Hydropower Plant.			



**Picture 4 – PPP Project Structure (Option 2a with AP)**

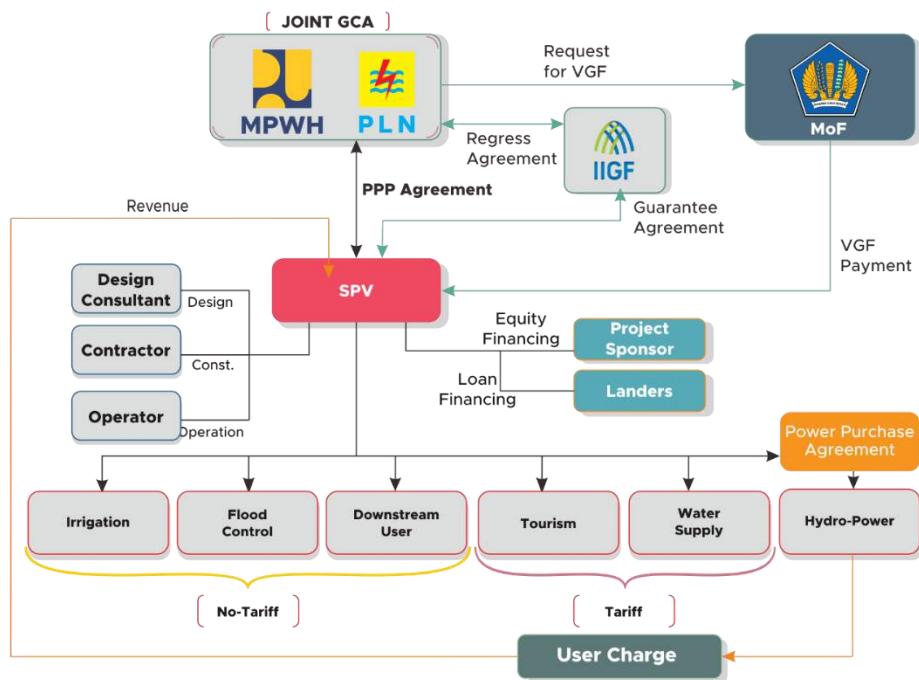


**Picture 5 – PPP Project Structure (Option 2b, 2c with VGF)**

- **Option 3 (Dam + Hydropower Plant 107.45 MW)**

Description	Dam + Hydropower Plant 107,45 MW (VGF)
<b>Estimated Project Cost Capex</b>	USD 339.87 million
<b>VGF Estimated</b>	USD 126.67 million
<b>Opex</b>	USD 4.17 million
<b>AP / year</b>	-
<b>Revenue / year</b>	USD 52.47 million
<b>Indicative debt to equity</b>	(to be confirmed in FBC)

iii. Debt Level	70%
iv. Equity Level	30%
FIRR	13.38%
NPV	USD 55.17 million
Cost of Equity	16.76%
Cost of Debt (after tax)	7.35%
WACC	10.17%
Using Viability Gap Fund (VGF) facility to subsidy some parts of construction costs of the future Hydropower Plant.	



Picture 6 – PPP Project Structure (Option 3)

## 8. Government Support and Guarantee

The indicative Government supports for the Merangin Multipurpose Dam are listed in the following points:

- 1) Land acquisition for the access roads, dam axis and reservoir areas and supporting facilities.
- 2) Tax incentive from the government:
  - o Corporate income tax reduction for private sector
  - o Import tax relief of testing devices which have yet to be produced domestically
  - o Value added tax relief of testing devices import which have yet to be produced domestically.
- 3) Project Development Facility (PDF) will be provided by the Ministry of Finance to further develop of Final Business Case (FBC) phase, as well as to further exercise either using the Availability Payment (AP) scheme or using the Viability Gap Fund (VGF) facility.
- 4) Guarantee of payment failures from Government Contracting Agency (GCA) to the private sector will be provided by the Indonesia Infrastructure Guarantee Fund (IIGF).

## **9. Contact Information**

Name : Arvi Argyantoro

Position : Director for Financing of Water Resources Infrastructure

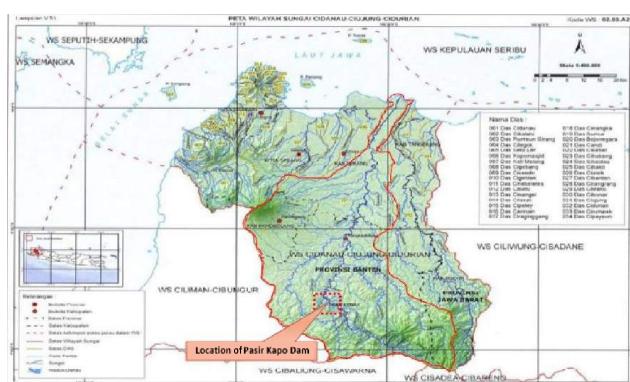
Phone : +62 21-7264-267

Email : direktorat.ppisda@gmail.com

## PASIR KOPO DAM

Location: Lebak, Banten Province

### Sector: Water Resources and Irrigation



### Government Contracting Agency:

Minister of Public Works and Housing

### Type of PPP:

Solicited

### Return of Investment:

Availability Payment

### Sub-Sector: Water Storage Infrastructure, Dam

#### Description:

This project is to construct a Pasir Kopo Dam which located on Lebak Regency of Banten Province. Pasir Kopo Dam is will cover area in the Cidanau - Ciujung - Cidurian River Region (C3).

#### Estimated Project Cost:

USD 141.73 Million (Dam only)

USD 158.33 Million (Dam + Hydropower Plant)

#### Financial Feasibility:

IRR : 11.30%

NPV : USD 14.19 Million (Dam only)

USD 15.97 Million (Dam + Hydropower Plant)

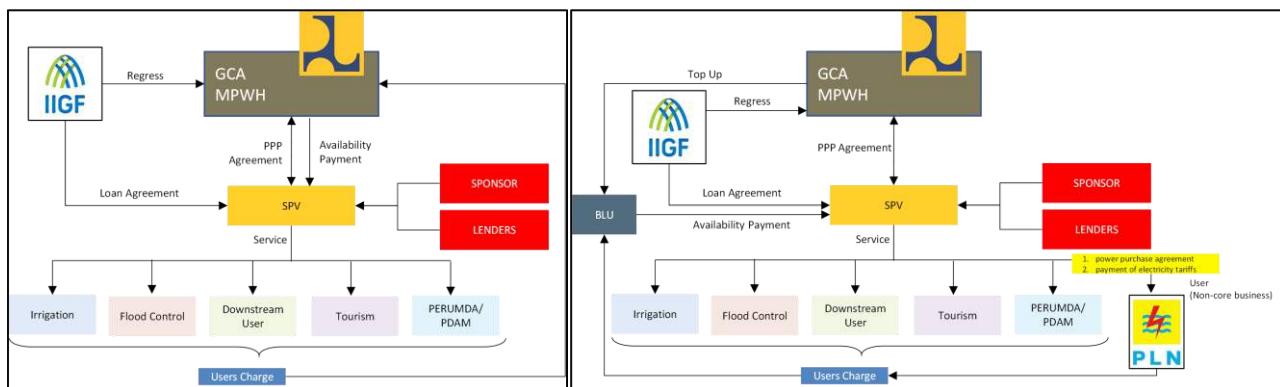
**Estimated Concession Period: 30 years**

### Indicative Project Schedule



Project Status : Preliminary Study

### Indicative Project Structure



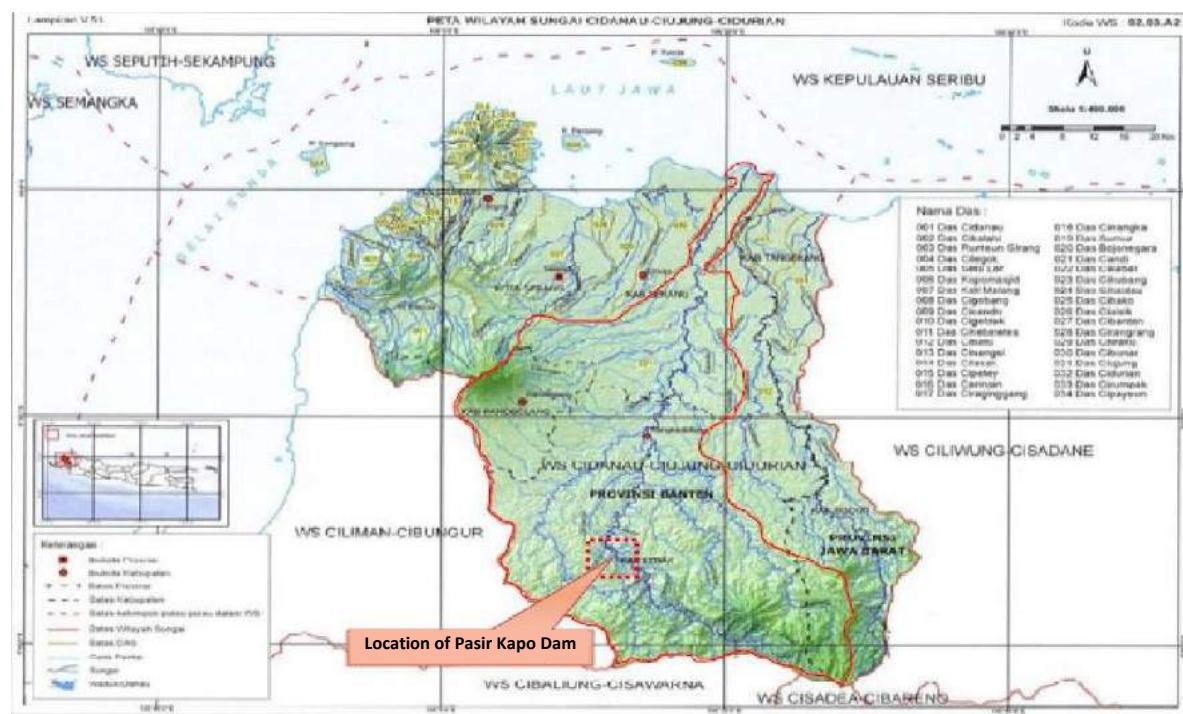
Option 1. Dam Only

Option 2. Dam + Hydropower

## Project Digest

Project Title	Pasir Kopo Dam
Government Contracting Agency	Minister of Public Works and Housing
Implementing Agency	Directorate General of Water Resources
Preparation Agency	Directorate General of Public Works and Housing Infrastructure Financing
Project Cost	USD 141.73 Million (Dam only) USD 158.33 Million (Dam + Hydropower Plant)
Estimated Concession Period	30 years
Location	Banten

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Location of Pasir Kopo Dam

### 2. The Opportunity

#### 2.1. Project Background

Along with the development of the Banten area and various kinds of infrastructure facilities such as irrigation, flood control facilities, raw water supply, and electricity sources, the construction of Pasir Kopo Dam is needed. Pasir Kopo Dam will cover Cidanau-Ciujung-Cidurian River Region (C3) so that the service area of the Pasir Kopo Dam is not limited to the Lebak Regency only. This project will be conducted with a PPP scheme through Availability Payment.

Pasir Kopo dam is included in the Draft Strategic Plan of the Ministry of Public Works and Housing 2020-2024 so that this dam becomes one of the major projects by contributing to the supply of raw water of  $3.8 \text{ m}^3/\text{s}$ .

## **2.2. Project Description**

This project is to build a Pasir Kopo Dam which located on Lebak Regency of Banten Province. Kopo Dam is included in the Cidanau – Ciujung – Cidurian River Region (C3) with PPP scheme. Return on Investment will use the Availability Payment system. The scope of work for the business entity will be Design-Build-Finance-Operate – Maintain and Transfer (D-B-F-O-M-T).

## **2.3. Project Objectives**

The objectives of this project are to fulfill the needs of various aspects such as irrigation of 3.2 m<sup>3</sup>/s, providing flood control of 288.77 m<sup>3</sup>/s, providing raw water of 3.8 m<sup>3</sup>/s, and fulfillment the electricity needs in the Cidanau-Ciujung-Cidurian River Region (C3) with an estimated annual production of 20.64 MW.

## **3. Business Entity's Scope of Work**

The scope of work for the business entity will be build, operate, and transfer.

## **4. Technical Specification**

Design review will be prepared by Directorate General of Water Resources in 2020. Further specification will be detailed in the OBC/FBC.

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents already finished in 2016 and will be reviewed by Directorate General of Water Resources in 2020. Further requirement will be detailed in the OBC/FBC.

## **6. Land Acquisition and Resettlement Action Plan**

The documents already finished in 2015 and will be prepared by Directorate General of Water Resources in 2020. Further plan will be detailed in the OBC/FBC.

## **7. Project Cost Structure**

- Option 1 (Dam Only)

Estimated Project Cost	USD 141.73 Million
Indicative Debt to Equity Ratio	
- Debt Level	70%
- Equity Level	30%
IRR	11.30 %
NPV	USD 14.19 Million

- Option 2 (Dam + Hydropower Plant)

<b>Estimated Project Cost</b>		<b>USD 158.33 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		70%
- <b>Equity Level</b>		30%
<b>IRR</b>		11.30 %
<b>NPV</b>		USD 15.97 Million

## 8. Government Support and Guarantee

The study has indicated that this project needs Government guarantee by Indonesia Infrastructure Guarantee Fund (IIGF).

## 9. Contact Information

Name : Arvi Argyantoro

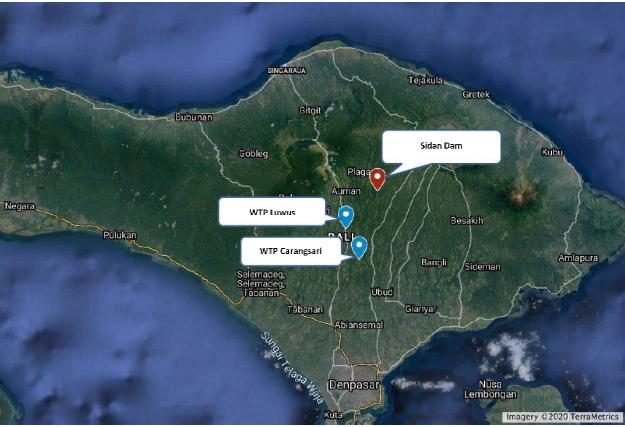
Position : Director for Financing of Water Resources Infrastructure

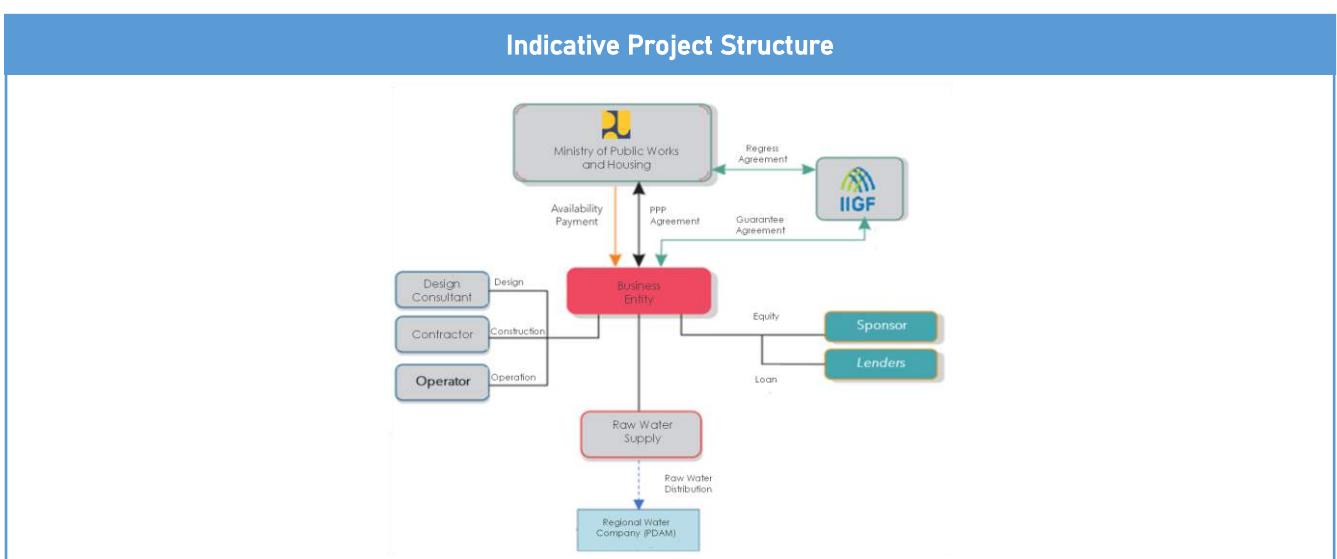
Phone : +62 21-7264-267

Email : direktorat.ppisda@gmail.com

## SIDAN DAM RAW WATER CHANNEL

Location: Bali Province

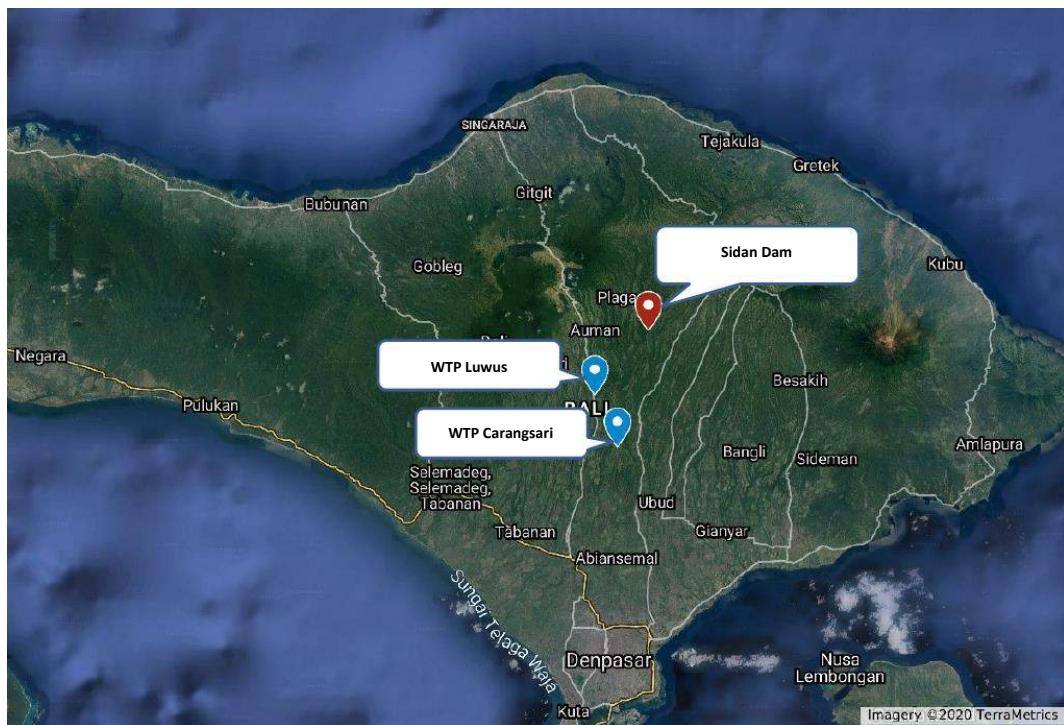
Sector: Water Resources and Irrigation	Sub-Sector: Water Pipe/Channel
	<b>Description:</b> Sidan Dam Raw Water Channel is part of bigger development project to support clean water supply for Sarbagita (Denpasar, Badung, Gianyar, and Tabanan) Region in Bali. This channel will distribute water from Sidan Dam.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Availability Payment	<b>Estimated Project Cost:</b> USD 32.40 Million <b>Financial Feasibility:</b> IRR : 11.21% NPV : USD 2.41 Million <b>Estimated Concession Period:</b> 20 years



## Project Digest

Project Title	Sidan Dam Raw Water Channel
Government Contracting Agency	Minister of Public Works and Housing
Implementing Agency	Directorate General of Water Resources
Preparation Agency	Directorate General of Infrastructure Financing
Project Cost	USD 32.40 Million
Estimated Concession Period	20 years
Location	Bali Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Maps of Project Location

### 2. The Opportunity

#### 2.1. Project Background

Sidan Dam Raw Water Channel is part of bigger development project to support clean water supply for Sarbagita (Denpasar, Badung, Gianyar, and Tabanan) Region in Bali. This channel will distribute water from Sidan Dam.

#### 2.2. Project Description

The initial activities for Sidan Dam Raw Water Channel Project is to develop transmission system to PDAM Denpasar, PDAM Badung, PDAM Gianyar, PDAM Tabanan; develop water stabilization pond, and pressure relief system. The intended capacity is 1,750 lps.

### **2.3. Project Objectives**

The objectives of this project is to develop raw water channel from Sidan Dam to respective Regional Water Company (PDAM) of 1750 lps. The planned service areas are Denpasar, Badung, Gianyar, and Tabanan.

### **3. Business Entity's Scope of Work**

The scope of work for the business entity will be build, operate, and transfer.

### **4. Technical Specification**

The technical specifications for Sidan Dam Raw Water Channel will be defined further in the Outline Business Case

### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents will be prepared by Directorate General of Water Resources in 2020. Further requirement will be detailed in the OBC/FBC.

### **6. Land Acquisition and Resettlement Action Plan**

The documents will be prepared by Directorate General of Water Resources in 2021. Further requirement will be detailed in the OBC/FBC.

### **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 32.40 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		70%
- <b>Equity Level</b>		30%
<b>IRR</b>		11.21%
<b>NPV</b>		USD 2.41 Million

### **8. Government Support and Guarantee**

The project needs for government support and guarantee will be defined in subsequent studies.

### **9. Contact Information**

Name : Arvi Argyantoro

Position : Director for Financing of Water Resources Infrastructure

Phone : +62 21-7264-267

Email : direktorat.ppisda@gmail.com

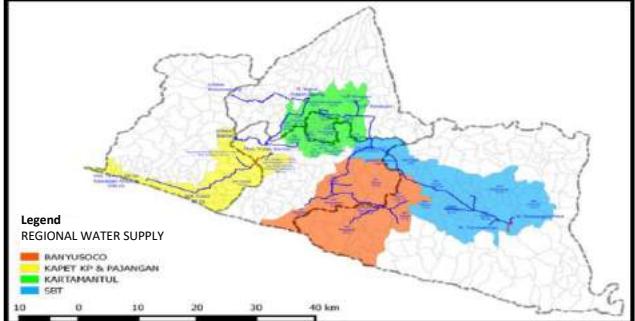
# **UNDER PREPARATION PROJECTS**

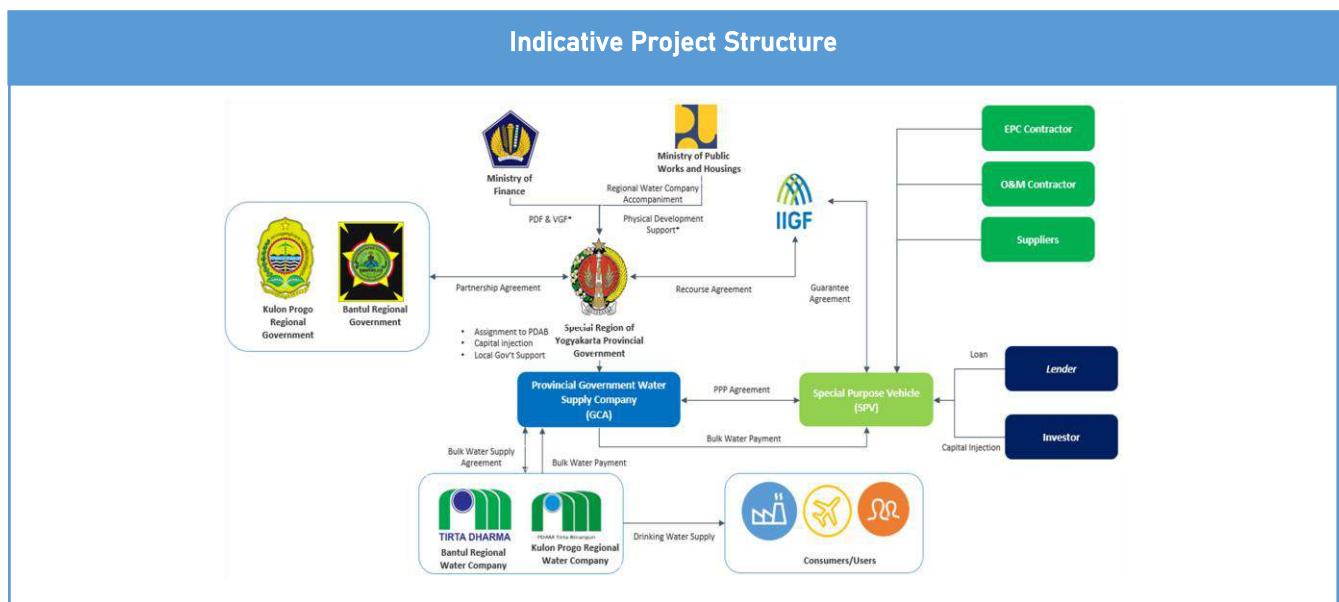
## **Drinking Water:**

1. Construction of Kamijoro Regional Water Supply System
2. Construction of Jatigede Regional Water Supply System
3. Pantura Regional Water Supply System
4. Dadimuria Regional Water Supply System
5. Bregas Regional Water Supply System
6. Wosusokas Regional Water Supply System Phase II

# CONSTRUCTION OF KAMIJORO REGIONAL WATER SUPPLY SYSTEM

Location : Kulon Progo and Bantul, Yogyakarta Province

Sector : Drinking Water	Sub-Sector : Water Supply System
 <p><b>Legend:</b>          REGIONAL WATER SUPPLY          ■ BANTULSOCO          ■ KAPET KP &amp; PAJANGAN          ■ KARTAMUNTUL          ■ SETI          10 0 10 20 30 40 km       </p>	<p><b>Description:</b>          Kamijoro Regional Water Supply system is aimed to supply the drinking water to the regencies of Bantul and Kulon Progo. The project utilizes bulk water from Progo River through Kamijoro Dam, which has been planned to supply 475 lps ("lps") drinking water, consisting of 286 lps to Bantul Regency and 189 lps to Kulon Progo Regency.</p>
<p><b>Government Contracting Agency:</b>          Governor of Yogyakarta</p> <p><b>Type of PPP:</b>          Solicited</p> <p><b>Return of Investment:</b>          User Charge</p>	<p><b>Estimated Project Cost:</b> USD 18.89 – 20.29 Million</p> <p><b>Financial Feasibility:</b>          IRR : 13-16 %          NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> 25 years</p>
<p><b>Indicative Project Schedule</b></p> 	
<p><b>Project Status:</b> Final Business Case</p>	



## Project Digest

Project Title	Construction of Kamijoro Regional Water Supply System
Government Contracting Agency	Government of Special Region of Yogyakarta (Further assignment to Provincial Government Water Supply Company ( <i>Perusahaan Daerah Air Bersih</i> /"PDAB)).
Implementing Unit	Department of Public Works, Housing, and Energy and Mineral Resources, Special Region of Yogyakarta
Preparation Agency	National Development Planning Agency
Project Cost	18.89 – 20.29 Million USD (Exclude Non – Construction fee and VAT)
Estimated Concession Period	25 years
Location	Kulon Progo Regency and Bantul Regency, Special Region of Yogyakarta

### 1. Project Picture (Map and/or Illustration of Project)

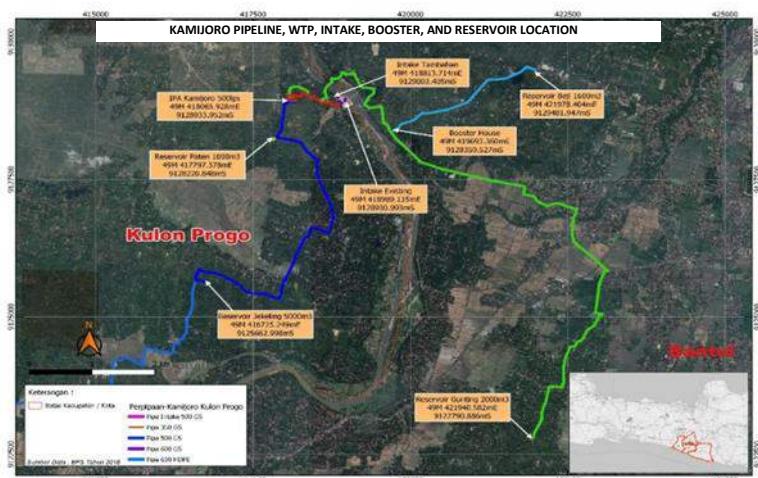


Figure 1 –Map of Kamijoro Water Supply System

### 2. The Opportunity

#### 2.1. Project Background

- The needs of the project are driven by water shortage in the Regencies of Bantul and Kulon Progo, while at the same time, the quality and continuity of current available water have been deteriorated.
- Overexploitation of ground water by local people, which result in unsuitable drinking water quality. The current water pipeline service is considered low, approximately 35% of Special Region of Yogyakarta population.
- Based on FBC Preliminary Report, the current coverage area of Regional-Owned Drinking Water Company (*Perusahaan Daerah Air Minum*/"PDAM") in Kulon Progo Regency and Bantul Regency are 21,34% and 10,47%, respectively. These percentage are considered significantly below the government target to fulfill 100% of drinking water supply in Indonesia, as mandated on RPJMN 2014 – 2019.

- The development of New Yogyakarta International Airport ("NYIA") and Sentolo Industrial Area establishes significant water demand for Kulon Progo Regency. Similarly, the development of Pajangan – Sedayu Industrial Area also create water demand for Bantul Regency.

## 2.2. Project Description

- The project utilizes raw water from Progo River. The water intake facility is located near Kamijoro Dam (on the west side). Currently, the intake facility is under construction by Directorate General of Water Resources (Balai Besar Wilayah Sungai Serayu Opak) through multi-years contract scheme from 2017-2019. The intake facility has been designed and built with a capacity of 500 liter per second.
- Assuming 95% production efficiency from intake, the WTP is designed to supply 475 lps, which will serve Kulon Progo Regency (286 lps) and Bantul Regency (189 lps).
- The estimated sub-districts within Bantul Regency covered by this project are Pajangan, Pandak, Sedayu, Bantul, Sanden, Srandonan, Pundong, Kretek, Bambangliouro and Jetis.
- The estimated sub-districts within Kulon Progo Regency covered by this project are Sentolo, Lendah, Galur, Panjatan, Wates, and Temon.
- The scope of distribution unit (from reservoirs onwards) will be further studied, it is either included in PPP scope or procured through government's or local government's budget.
- Furthermore, the scope of House Connection unit will be undertaken by Region-Owned Drinking Water Company (Perusahaan Daerah Air Minum/"PDAM").
- In line with PPP preparation stage, Provincial Government will establish the Provincial Government Water Supply Company (Perusahaan Air Minum Daerah /"PDAB") as operator, which will be assigned to manage the supply of bulk water to PDAMs. PDAB will also further be assigned as Government Contracting Agency ("GCA"). PDAB is targeted to be established by Quarter 1 2020.

## 2.3. Project Objectives

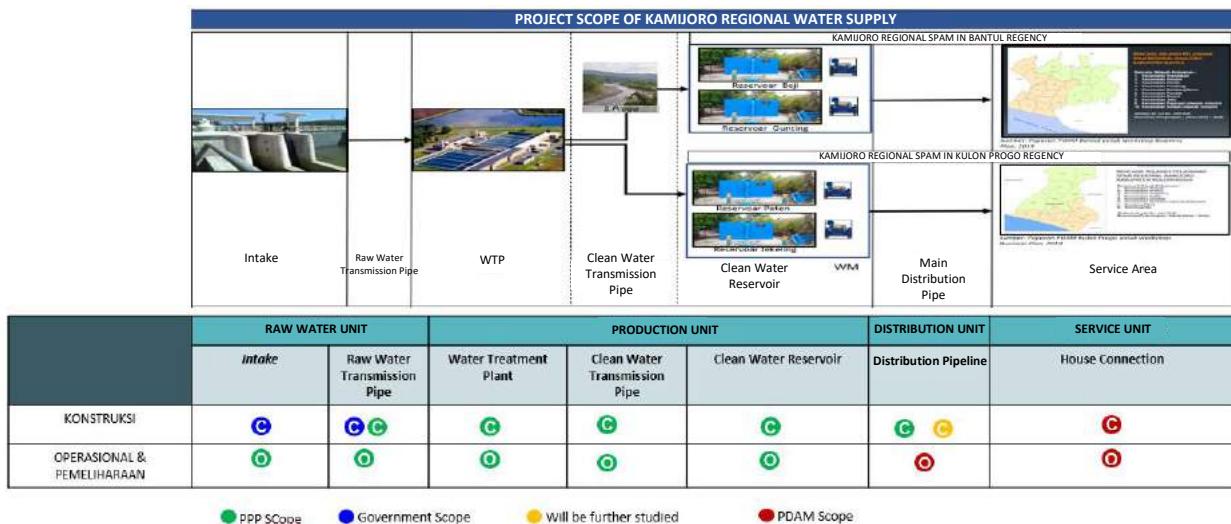
Private sector which will participate in this project will have to:

- Operate and Maintain intake facilities built by Ministry of Public Works and Housing.
- Construct, Operate and Maintain Water Treatment Plant with the capacity to produce 475 lps.
- Construct, Operate and Maintain two reservoirs (Beji and Gunting) to serve 189 lps to Bantul Districts.
- Construct, Operate and Maintain two reservoirs (Tuksono and Jekeling) to serve the Kulon Progo districts.
- Construct, Operate and Maintain transmission pipeline.

## 3. Business Entity's Scope of Work

The SPC will be responsible for constructing, operating and maintaining the Water Treatment Plant, Clean Water Transmission pipe, reservoirs until the handover points to PDAM. The SPC

scope also include operating and maintaining the intake facilities constructed by Ministry of Public Works and Housing.



**Figure 2 – Scope of Work**

#### 4. Technical Specification

Project technical specification will be further studied during finalization of FBC Report.

#### 5. Environmental Impact Assessment (EIA/AMDAL) Findings

The previous Environmental Impact Assessment (AMDAL) of Kamijoro Stage I (Kulon Progo) was undertaken by Government of Special Region of Yogyakarta. While there are changes on the scope into integrated system of Water Supply project for Bantul and Kulon Progo, the permit requires new AMDAL assessment, altogether with the location allocation permit (Penetapan Lokasi).

#### 6. Land Acquisition and Resettlement Action Plan

- Land acquisition required, altogether with construction of intake facility, has been undertaken by the Ministry of Public Works and Housing.
- Land acquisition needed for Water Treatment Plant, and reservoirs Tuksono and Jekeling in Kulon Progo Regency has been acquired by Government of Special Region of Yogyakarta.
- Land acquisition for reservoirs Gunting and Beji in Bantul Regency will be undertaken by Government of Special Region of Yogyakarta, targeted in 2020.
- Land Acquisition Resettlement Action Program ("LARAP") document is under progress.
- Any other permit requirement during construction and operation will be undertaken by SPC.

## 7. Project Cost Structure

Estimated Project Cost		18.89 – 20.29 Million USD
Indicative Debt to Equity Ratio		
- Debt Level		70%
- Equity Level		30%
IRR		13-16%
NPV		Under Calculation

## 8. Government Support and Guarantee

There are possible government supports and guarantee for the project:

- **Viability Gap Fund ("VGF")**, Based on Ministry of finance Regulation No. PMN 223/2012 and PMK 143/2013, which subsidy of construction cost given to increase project's feasibility. The amount and portion needed will be further studied on FBC Final Report.
- **Central and Local Government Support**, based on Ministry of Public Works and Housing Regulation No. 19/2016, which is fiscal and non-fiscal support to increase project feasibility. The needs and amount of the supports will be further studied on FBC Final Report.
- **Government Guarantee**, Based on Presidential Regulation No. 38/2015, No. 78/2010, also Ministry of Finance Regulation No. 260/2010, is the guarantee given by Central Government for PPP Project. Further needs for government guarantee will be studied on FBC Final Report.

## 9. Contact Information

Name	: Ir. Hananto Hadi Purnomo, M.Sc
Position	: Head of Department of Public Works, Housing, and Energy and Mineral Resources
Phone	: +62 274 589074
Mobile Ph	: +62 816-4227-005
Fax	: +62 274 550320
Email	: dpupesdmdi@jogjaprov.go.id

# CONSTRUCTION OF JATIGEDE REGIONAL WATER SUPPLY SYSTEM

Location : West Java Province

## Sector : Drinking Water



## Sub-Sector : Water Supply System

### Description:

1,500 L/sec of Jatigede regional water supply will service Sumedang Regency, Majalengka Regency, Cirebon Regency, Indramayu Regency and Cirebon city. Jatigede water supply consist of intake, 3x500 L/s WTP, 56.3 km main distribution network: 56.3 km, and distribution reservoir: seven distribution reservoirs located at each off-taker (Tomo, Jatitujuh, Jatiwangi, Jatibarang, Krangkeng, Babadan and Kepompong).

**Estimated Project Cost:** USD 141.64 Million

**Financial Feasibility:**

IRR : 14.19%

NPV : USD 97.03 Million

**Estimated Concession Period:** 3 years construction and 30 years operation.

### Government Contracting Agency:

Governor of West Java

### Type of PPP:

Solicited

### Return of Investment:

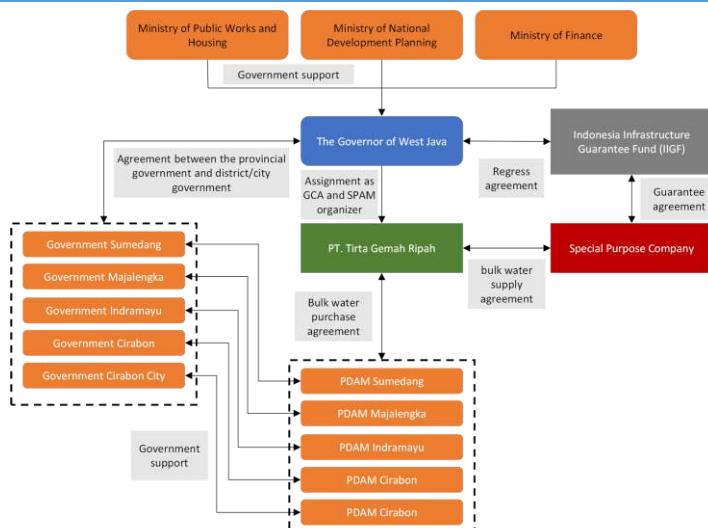
User Charge

## Indicative Project Schedule



### Project Status: Outline Business Case

## Indicative Project Structure



## Project Digest

Project Title		Construction of Jatigede Regional Water Supply System
<b>Government Contracting Agency</b>	Governor of West Java	
<b>Implementing Agency</b>	PT Tirta Gemah Ripah	
<b>Preparation Agency</b>	<i>Badan Peningkatan Penyelenggaraan Sistem Penyediaan Air Minum (BPPSPAM)</i>	
<b>Project Cost</b>	USD 141.64 Million	
<b>Estimated Concession Period</b>	3 years construction and 30 years operation	
<b>Location</b>	West Java Province	

### 1. Project Picture (Map and/or Illustration of Project)

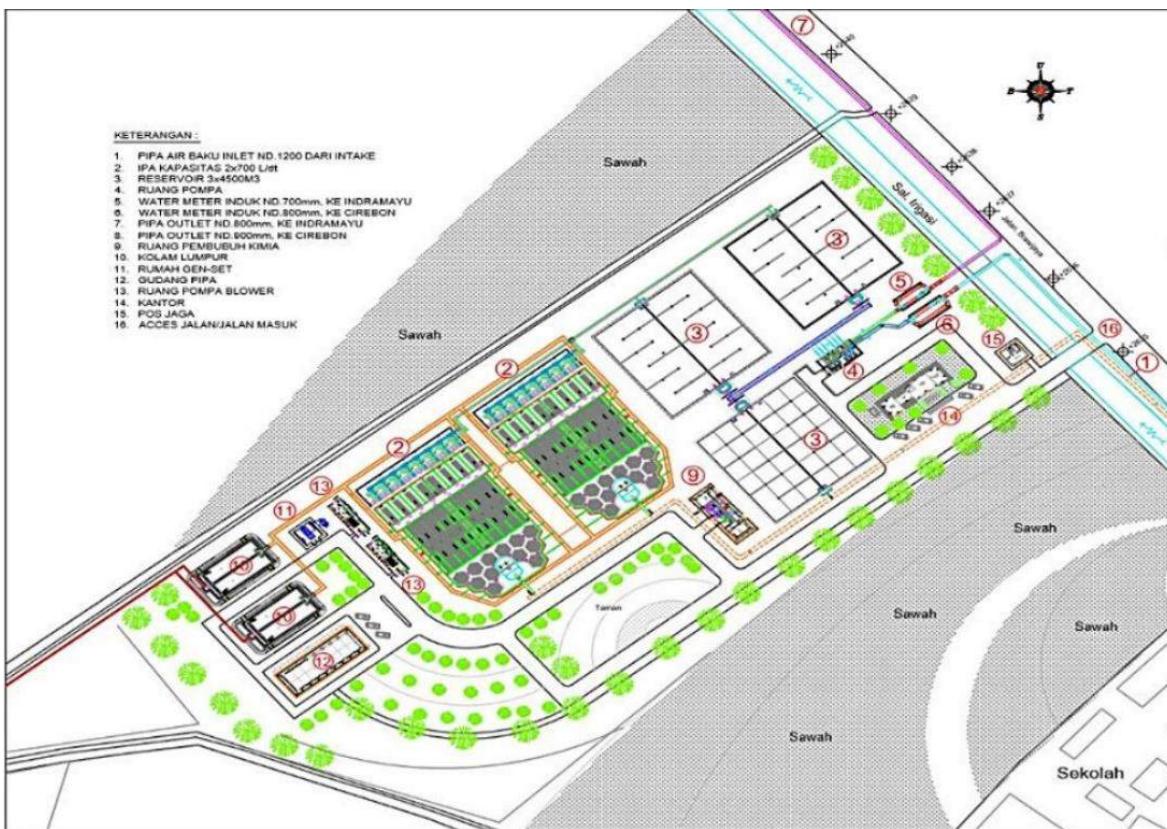


Figure 1 – Layout of Jatigede Water Supply System

### 2. The Opportunity

#### 2.1. Project Background

The implementation of regional Water Supply is one of the efforts for more efficient and effective water supply in terms of technical and economic aspects. In addition, the limited funding sources in conducting investment for the implementation of water supply, would be carried out through Public Private Partnership scheme.

Jatigede Regional Water Supply is a National Strategic Project, where the governments both central and regional will coordinate and issues series of policies to accelerate the implementation of the project.

## 2.2. Project Description

The service area for Jatigede regional water supply are as follows:

- Sumedang Regency;
- Majalengka Regency;
- Cirebon sub Regency;
- Indramayu Regency; and
- Cirebon city

Jatigede regional water supply will be implemented by the BOT mechanism. The scope of activities that will be cooperated for the Jatigede Regional Water Supply include:

- Special Purpose Company sell treated water (bulk water) to PDAM through GCA using the 'take or pay' method;
- Target Area: Sumedang sub district, Majalengka sub district, Indramayu sub district, Cirebon sub district, Cirebon city;
- Water treatment plant phase I: 3 x 500 L/s;
- Main distribution network: 56.3 km;
- Distribution reservoir: three locations at each off-taker (Tomo, Jatitujuh, and Jatiwangi).

WTP will be located in Kadipaten. Production capacity of 1,500 L/sec consists of 3 WTPs with a capacity of 500 L/d. For each WTP, it consists of processing units: coagulation, flocculation, sedimentation and filtration. The construction phase is planned to be carried out in 2020 for three years and will start operating in 2022.

## 2.3. Project Objectives

The objectives of Jatigede Water Supply is to provide clean water services to the community in service area.

## 3. Business Entity's Scope of Work

Build – Operate – Transfer

Roles and responsibilities of business entity are as follows:

- 1) To build and manage Water Treatment Plant and ensure low water production losses;
- 2) To build and manage bulk water transmission pipeline, ensure low water losses on the transmission unit, and perform maintenance of transmission pipelines;
- 3) To build, manage, and maintain distribution reservoir, including main water meter.

## 4. Technical Specification

The technical specifications for Jatigede Regional Water Supply are as follows:

No.	Description	Capacity
I	<b>Intake</b>	
	1. Construction	Reinforced Concrete
	2. Pump capacity	3 x 550 L/sec
II	<b>Water Treatment Plant</b>	

No.	Description	Capacity
	1. Construction	Reinforced Concrete
	2. Capacity	3 x 550 L/sec
III	<b>Transmission Pipe</b>	
	1. Capacity	1,500 L/sec
	2. Maximum Pressure	60 – 80 m water column
	3. Minimum Pressure	5 – 10 m water column
IV	<b>NRW</b>	
	1. Intake	2%
	2. Production Facilities	5%
	3. Transmission Pipeline	1-2%
V	<b>Operation time</b>	24 hours/day
VI	<b>Water Quality</b>	Minister of Health Regulation No. 49/2010 and WHO Guidelines for Drinking Water Quality, 2011
VII	<b>Material Standard</b>	Indonesia: SNI International: ISO, JIS, AWWA, ASTM, ANSI, DIN, BS
VIII	<b>Continuity of supply</b>	Indonesia: SNI International: ISO, JIS, AWWA, ASTM, ANSI, DIN, BS
	1. The average duration of the termination	1 hour in 24 hours
	2. Termination of operations for maintenance	2 days in 365 days
	3. Termination of operations due to electrical interference	1 day in 365 days
IX	<b>Monitoring system</b>	SCADA
	1. Centralized automatic system	
	2. Meter system	
	3. Communication system	

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Until June 2018, Housing and Settlement Agency is completing an Environmental Impact Assessment (AMDAL) for PPP Project of Jatigede Regional Water Supply. In OBC document explained that due to a change in the location and a large capacity of 2,000 L/d of the Intake, the Agency needs to revise AMDAL of Jatigede Regional Water Supply and at the same time proposing for the environmental permit from the West Java Governor

## 6. Land Acquisition and Resettlement Action Plan

In Jatigede Regional Water Supply, the initial identification of the project development intake location, transmission pipeline, and reservoir is as follows:

No	Land purpose	Land Area (ha)	Land Ownership	Contract / Land Acquisition Method
1.	Intake located in Cilutung	0.89 ha	Owned by BBWS Cimanuk-Cisanggarung	West Java Provincial Government as GCA, get from BBWS Cimanuk-Cisanggarung
2.	Raw water Transmission Pipeline	4.58 ha	Owned by BBWS Cimanuk-Cisanggarung, National road, village and community land	West Java Provincial Government as GCA, get from BBWS Cimanuk-Cisanggarung, Bina Marga, and acquiring village and community land
3.	WTP Located in Kadipaten (including reservoir)	5.03 ha	Owned by West Java Provincial Government	
4.	Pipeline (from WTP to each reservoir)	Total area 20.42 ha	- 2.74 will be placed on <i>Inspeksi irrigasi</i> road - 0.84 will be placed on Rumija Toll land	<b><i>Inspeksi irrigasi</i></b> road: permit for utilization of roads from the MoPWH and a lease agreement with the MoPWH. <b>Rumija Tol:</b> permit for utilization of roads from the PT. Lintas Marga Sedaya.
5.	Tomo Reservoir	0.09 ha	Owned by Sumedang sub-district	Built on Sumedang's LG land.
6.	Jatiwangi Reservoir	0.09 ha	Owned by Majalengka sub-district	Built on Majalengka's LG land.
7.	Jatitujuh Reservoir	0.12 ha	Owned by Majalengka sub-district	Built on Majalengka's LG land.
8.	Jatibarang Reservoir	0.12 ha	Owned by Indramayu sub-district	Built on Indramayu's LG land.

<b>9.</b>	Krangkeng Reservoir	0.16 ha	Owned by Indramayu sub-district	Built on Indramayu's LG land.
<b>10.</b>	Babadan Reservoir	0.08 ha	Owned by Cirebon sub-district	Built on Cirebon's LG land.
<b>11.</b>	Kepompong Reservoir	0.25 ha	Owned by Cirebon city	Built on Cirebon city's LG land.

## 7. Project Cost Structure

<b>Estimated Project Cost</b>		<b>141.64 Million USD</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		70%
- <b>Equity Level</b>		30%
<b>FIRR</b>		14.19%
<b>NPV</b>		USD 97.03 Million

## 8. Government Support and Guarantee

The project is indicated to require government support in the form of fiscal and non-fiscal. Government support includes VGF, Guarantee, Technical Support of the Ministry of Public Works and Housing.

## 9. Contact Information

Name : Asep Winara

Position : Director of PT. Tirta Jabar

Phone : (022) 20512887

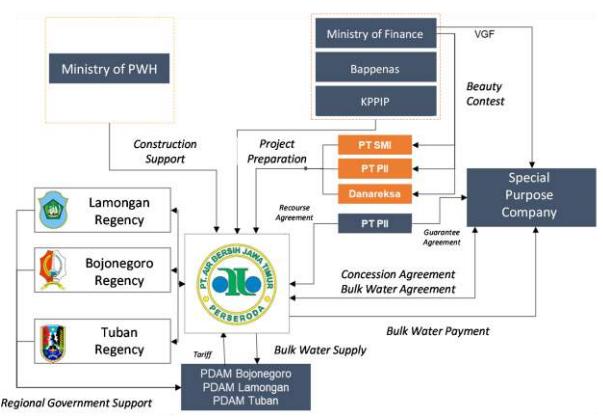
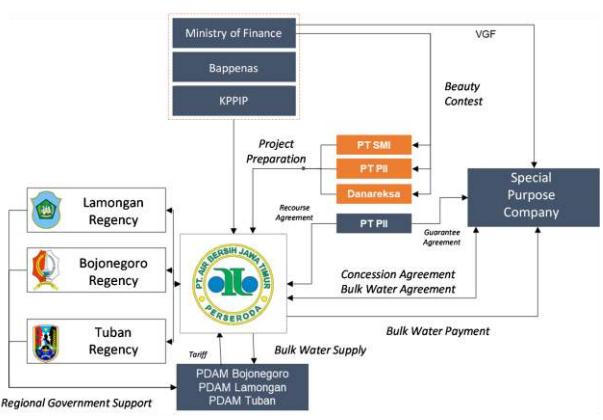
## PANTURA REGIONAL WATER SUPPLY SYSTEM

Location : Lamongan, Tuban and Bojonegoro Regency, East Java Province

<p><b>Sector : Drinking Water</b></p>  <p><b>Government Contracting Agency:</b> Director of PT. Air Bersih Jatim (Perseroda)</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Under Review</p>	<p><b>Sub-Sector : Water Supply System</b></p> <p><b>Description:</b> Pantura Water Supply System will utilize water from Bengawan Solo River to supply water in Lamongan, Bojonegoro and Tuban Regency. It is projected that in 25 years, the water demand in the area will grow to 1,749 lps. To fulfill this demand, the government needs to expand the current water supply system.</p> <p><b>Estimated Project Cost:</b> Under Calculation</p> <p><b>Financial Feasibility:</b> IRR : Under Calculation NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> Under Review</p>
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<b>Indicative Project Schedule</b>

<b>Project Status:</b> Preliminary Study

<b>Indicative Project Structure</b>	
<p><b>With Construction Support</b></p> 	<p><b>Without Construction Support</b></p> 

## Project Digest

Project Title	Pantura Water Supply System
Government Contracting Agency	Director of PT. Air Bersih Jatim (Perseroda)
Implementing Unit	Under Review
Preparation Agency	Under Review
Project Cost	Under Calculation
Estimated Concession Period	Under Review
Location	Lamongan, Tuban and Bojonegoro Regency, East Java Province

### 1. Project Picture (Map and/or Illustration of Project)

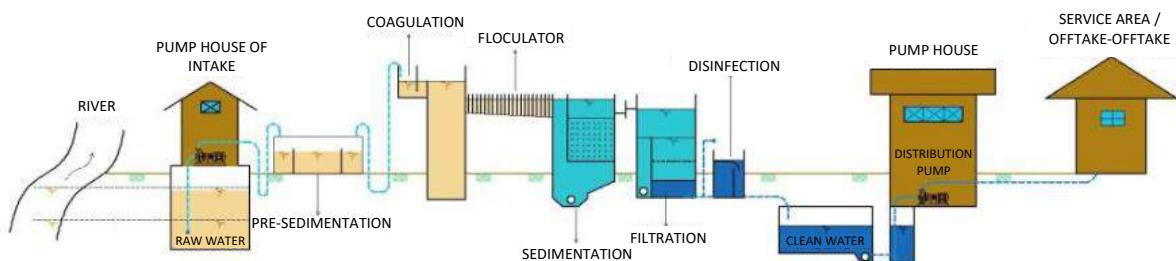


Figure 1 –Schematics of Pantura Regional Water Supply System

### 2. The Opportunity

#### 2.1. Project Background

In line with the role of the Regency and City Governments in the era of regional autonomy and in connection with the existence of Law 17 of 2019 on Water Resources, Government Regulation Number 122 of 2015 concerning Drinking Water Supply Systems, Minister of Public Works Regulation Number 20 / PRT / M / 2006 concerning National Policies and Strategies in the Development of SPAM and Minister of Public Works Regulation No. 18 / PRT / M / 2007 concerning the Implementation of Drinking Water Supply System Development, that the development of drinking water supply systems is the responsibility of local governments (Provincial and Regency / City). The Indonesian government aspires to be able to achieve universal access to safe drinking water by 2019. This means that 100% of the people have access to safe drinking water services that year. This is stated in the 2005-2025 Long-Term National Development Plan (RPJPN).

The current service level of drinking water services in East Java is still far from sufficient. The potential of raw water sources in East Java is not yet comprehensively identified and also has not been used optimally, on the other hand there are still many areas that lack and have difficulty in getting drinking water to meet their daily needs.

Example of an integrated clean water supply system that can be used together in East Java Province is the Bengawan Solo River that will cater the population in Bojonegoro, Tuban and Lomongan Regency, hereinafter referred to as the "Pantura Regional Water Supply System".

## **2.2. Project Description**

Pantura Regional Water Supply System will consist of following facilities:

- Water Intake Unit, located in Lamongan Regency
- Water Treatment Plant (WTP)
- Main Transmission Pipeline
- Customer Connection tappings

To fulfill the water demand until 2045, the water supply system would need to have the capacity of 1,749 lps of water, with 643 lps supplied to Lamongan Regency, 559 lps supplied to Tuban Regency and 547 supplied to Bojonegoro Regency.

## **2.3. Project Objectives**

The purpose for the development of Pantura Regional Water Supply is to:

- Utilize the potential of fresh water that can be used
- Help regencies / cities that do not have and or have limited sources of water
- Increase efficiency of existing drinking water services in each regency / city area.

## **3. Business Entity's Scope of Work**

The project will implement D-B-F-O-M-T (Design – Build – Finance – Operate– Maintenance-Transfer) scheme for the PPP Project.

The scope of work is as follows:

- Construction of Water Treatment Plant (WTP) with capacity of 1,749 lps.
- Construction of Main Distribution Pipe and corresponding Piping Bridge.
- Installation of 30 Offtake Point (Tapping) with Reservoir and Distribution Pump.

## **4. Technical Specification**

Project technical specification will be further studied in the OBC/FBC document.

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Project technical specification will be further studied in the OBC/FBC document.

## **6. Land Acquisition and Resettlement Action Plan**

Land needed for this project is approximately ± 3.5 hectares with details as follows:

- Water Intake Unit : 0.5 hectares
- Water Treatment Plant: 2 hectares
- Pipeline and Support :1 hectare

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>Under Calculation</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under Calculation
- <b>Equity Level</b>	Under Calculation
<b>IRR</b>	Under Calculation
<b>NPV</b>	Under Calculation

## **8. Government Support and Guarantee**

Government Supports identified in the preliminary study are Viability Gap Fund (VGF) and Project Development Facility (PDF). It is also identified that this project would need Government Guarantee from IIGF.

## **9. Contact Information**

Name : M. Falahul A. A

Position : Head Of Planning and Development Division

Phone : 08113520538

Email : falahalharamaini@gmail.com

Name : Ade Novan Wicaksono

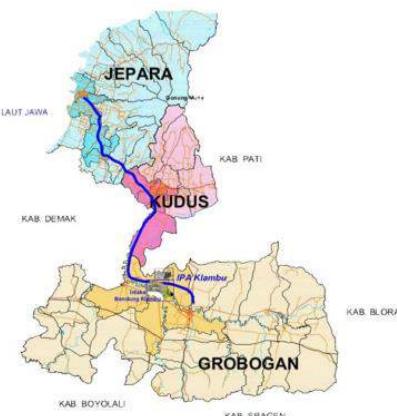
Position : Staff Analyst Of Planning and Development Division

Phone : 081334483532

Email : adenovan92@gmail.com

## DADIMURIA REGIONAL WATER SUPPLY SYSTEM

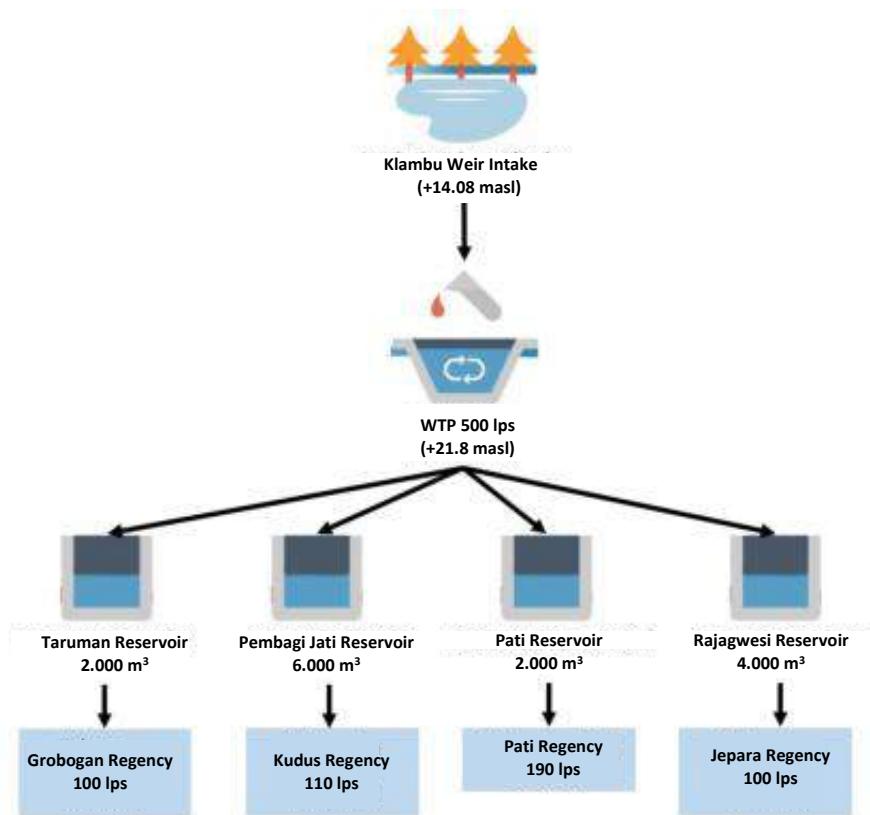
Location : Grobogan, Kudus, Pati and Jepara Regency, Central Java Province

Sector : Drinking Water	Sub-Sector : Water Supply System
	<p><b>Description:</b> Dadimuria Regional Water Supply System will provide clean water for population in Grobogan Regency, Kudus Regency, Pati Regency and Jepara Regency. The needs for clean water will be increase due to the growing population in this area. The first phase of the project will be constructed using PPP scheme.</p>
<p><b>Government Contracting Agency:</b> Director of PDAB Tirta Utama</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Under Review</p>	<p><b>Estimated Project Cost:</b> Under Calculation</p> <p><b>Financial Feasibility:</b> IRR : Under Calculation NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> Under Review</p>
<p><b>Indicative Project Schedule</b></p>  <pre>graph LR; A[OBC Q2 2020] --&gt; B[FBC Q3 2020]; B --&gt; C[Pre-Qualification Q1 2021]; C --&gt; D[Request for Proposal Q2 2021]; D --&gt; E[Bid Award Q3 2021]; E --&gt; F[Agreement Signing Q3 2021]; F --&gt; G[Financial Close Q4 2021]; G --&gt; H[Construction Q1 2022]</pre>	
<p><b>Project Status :</b> Preliminary Study</p> <p><b>Indicative Project Structure</b></p> <p>Will be determined in OBC/FBC</p>	

## Project Digest

Project Title	Dadimuria Regional Water Supply System
Government Contracting Agency	Director of PDAB Tirta Utama
Implementing Unit	Under Review
Preparation Agency	Under Review
Project Cost	Under Calculation
Estimated Concession Period	Under Review
Location	Grobogan Regency, Kudus Regency, Pati Regency and Jepara Regency, Central Java Province

### 1. Project Picture (Map and/or Illustration of Project)



**Figure 1 –Schematics of Dadimuria Regional Water Supply System**

### 2. The Opportunity

#### 2.1. Project Background

Central Java as one of the most populated provinces in Indonesia needs to have proper water supply system to fulfill the needs water supply for the community. Dadimuria Regional Water Supply System will cover areas in Grobogan Regency, Kudus Regency, Pati Regency and Jepara Regency. Currently, the water demand for the region is approximately 10,422 lps of water and in 20 years will grow to around 14,192 lps. Currently, the water production capacity is only 1,138 lps. Dadimuria Water Supply System is intended to fulfill this demand gap.

#### 2.2. Project Description

The Dadimuria Regional Water Supply System will consist of construction of new water intake from Klambu Dam, construction of new Water Treatment Plant (WTP) with capacity of 500 lps along with reservoirs, pumping system and transmission pipe network to cater population in the area.

The phase I of the project will supply water to 40,000 customer connections, with details as follows:

- Grobogan Regency with water supply of 100 lps will supply 8,000 connections
- Kudus Regency with water supply of 110 lps will supply 8,800 connections
- Jepara Regency with water supply of 190 lps will supply 15,200 connections
- Pati Regency with water supply of 100 lps will supply 8,000 connections

### 2.3. Project Objectives

The purpose for the development of Dadimuria Regional Water Supply is to:

- Utilize the potential of fresh water that can be used
- Help regencies that do not have and or have limited sources of water
- Increase efficiency of existing drinking water services in each regency area.

## 3. Business Entity's Scope of Work

The Business Entity will work with Build-Operate-Transfer (B-O-T) scheme for facilities as follows:

- Water intake in Klambu Dam
- Water Treatment Plant (WTP)
- Transmission Pipe Network
- Service Pipe Network to customer

It is noted that in 2022, MPWH plans to build water intake facility in Klambu Dam. If the plan goes through, then water intake facility will be taken out from project scope of work.

## 4. Technical Specification

Project technical specification is as follows:

Facility	Specification	
Water Intake Unit	500 lps	
Reservoir		
- Taruman Reservoir	2,000 m <sup>3</sup>	
- Jati Reservoir	6,000 m <sup>3</sup>	
- Pati Reservoir	2,000 m <sup>3</sup>	
- Rajagwesi Reservoir	4,000 m <sup>3</sup>	
Transmission Pipe Network		
- From WTP to Grobogan Reservoir	15,000 m	HDPE Pipe dia. 500 mm
- From WTP to Kudus Reservoir	30,000 m	HDPE Pipe dia. 700 mm
- From Kudus Reservoir to Jepara	23,000 m	HDPE Pipe dia. 600 mm

Facility		Specification
- From WTP to Pati Reservoir	25,000 m	HDPE Pipe dia. 600 mm
- From Pati Reservoir to Pati Ply	26,000 m	HDPE Pipe dia. 500 mm
<b>Service Unit</b>		
- Grobogan Regency	100 lps	8,000 connections
- Kudus Regency	110 lps	8,800 connections
- Jepara Regency	190 lps	15,200 connections
- Pati Regency	100 lps	8,000 connections

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Any environmental document requirement will be identified in subsequent OBC/FBC Documents.

## 6. Land Acquisition and Resettlement Action Plan

Land acquisition and resettlement action plan will be detailed in subsequent OBC/FBC Documents.

## 7. Project Cost Structure

Estimated Project Cost	Under Calculation
<b>Indicative Debt to Equity Ratio</b>	
- Debt Level	Under Calculation
- Equity Level	Under Calculation
IRR	Under Calculation
NPV	Under Calculation

## 8. Government Support and Guarantee

Government Support and guarantee will be identified in subsequent OBC/FBC Documents.

## 9. Contact Information

Name : Anom Guritno, ST, M.Ling

Position : Technical Director of PDAB Tirta Utama

Phone : +628156523305

Email : [anomguritno@yahoo.com](mailto:anomguritno@yahoo.com)

Name : Khusnul H Sambodja, ST

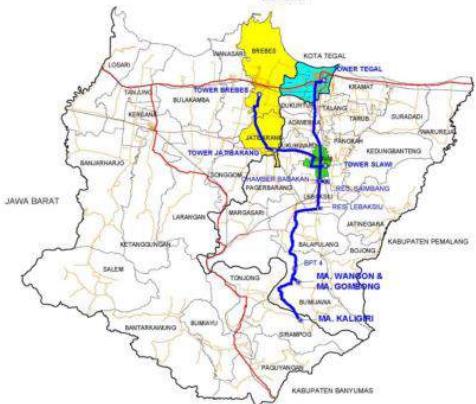
Position : Head of Division Monitoring and Evaluating PDAB Tirta Utama

Phone : +6282138883324

Email : [envirocker@gmail.com](mailto:envirocker@gmail.com)

## BREGAS REGIONAL WATER SUPPLY SYSTEM

Location : Brebes and Tegal, Central Java Province

Sector : Drinking Water	Sub-Sector : Water Supply System
	<p><b>Description:</b> Bregas Regional Water Supply System development plan is implemented to fulfill and accelerate the development target of 100-0-100 by expanding coverage water supply piping services in Brebes Regency, Tegal Regency and Tegal City. Currently each of these regions has the coverage of piping services that is still below 50%. This project aim at increasing the coverage area and increase the efficiency of the system.</p>
<p><b>Government Contracting Agency:</b> Director of PDAB Tirta Utama</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Under Review</p>	<p><b>Estimated Project Cost:</b> Under Calculation</p> <p><b>Financial Feasibility:</b> IRR : Under Calculation NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> Under Review</p>
<p><b>Indicative Project Schedule</b></p>  <pre>graph LR; OBC[OBC Q2 2020] --&gt; FBC[FBC Q4 2020]; FBC --&gt; PreQ[Pre-Qualification Q1 2021]; PreQ --&gt; RFP[Request for Proposal Q2 2021]; RFP --&gt; BidAward[Bid Award Q3 2021]; BidAward --&gt; Agreement[Agreement Signing Q3 2021]; Agreement --&gt; FC[Financial Close Q4 2021]; FC --&gt; Construction[Construction Q1 2022]</pre>	
<p><b>Project Status:</b> Preliminary Study</p>	<p><b>Indicative Project Structure</b></p> <p>Will be determined in OBC/FBC</p>

## Project Digest

Project Title	Bregas Regional Water Supply System
Government Contracting Agency	Director of PDAB Tirta Utama
Implementing Unit	Under Review
Preparation Agency	Under Review
Project Cost	Under Calculation
Estimated Concession Period	Under Review
Location	Brebes Regency and Tegal Regency, Central Java Province

### 1. Project Picture (Map and/or Illustration of Project)

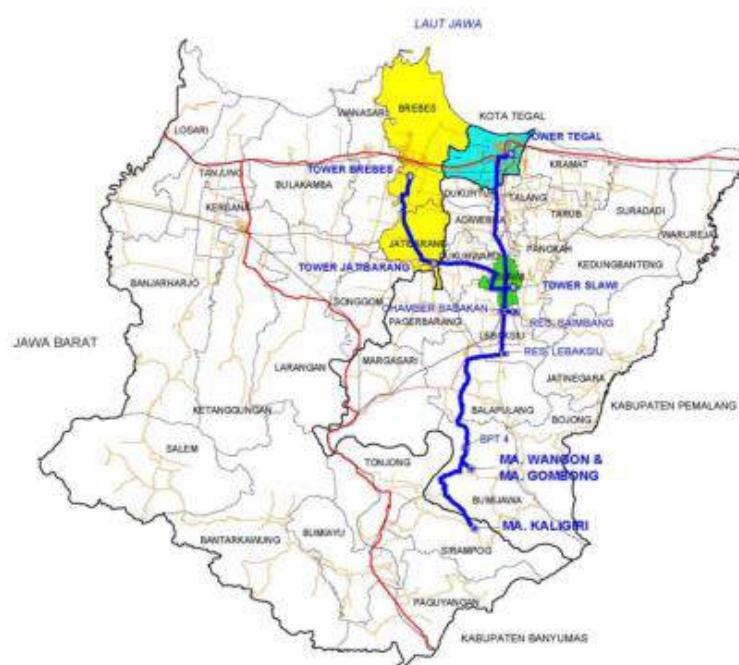


Figure 1 –Map of Bregas Water Supply System

### 2. The Opportunity

#### 2.1. Project Background

Bregas Regional Water Supply will provide water supply for population in Brebes Regency, Tegal Regency and Tegal City. It is projected that in 20 years, the water demand in the coverage area will increase substantially to nearly 8,800 lps. While the currently installed capacity of Bregas Regional Water Supply System is only 872 lps, leaving the supply gap of over 90% in the coverage area. This situation is worsened by the high rate of water loss, up to 30.27% in 2019. This will make the operation of Bregas Regional Water Supply System very costly and will make it less profitable.

To address this situation a project is needed to rehabilitate the water supply system and expand the piping network. This will increase the coverage, minimize the water loss, and ensure the efficiency of the system that will lower the operation and maintenance cost of the system.

#### 2.2. Project Description

The project will rehabilitate the Bregas Regional Water Supply System by rehabilitating the main distribution piping system from Babakan Chamber to Brigif Chamber, constructing new Babakan Reservoir, rehabilitating Gombong Spring broncaptering, and rehabilitating transmission pipeline from Kaligiri Spring to Babakan Chamber.

### 2.3. Project Objectives

The objectives of the project are:

- Revitalize aging facility in Bregas Regional Water Supply System
- Fulfill the growing market demand for water supply inside the coverage area

## 3. Business Entity's Scope of Work

The scope of work for business entity in this project will be B-O-T with activities as follows:

- Rehabilitation of the main distribution piping system from the Babakan Chamber to the Brigif Chamber with the HDPE PN 12.5 Dn 500 pipe along 2.5 km.
- Rehabilitation of the main distribution pipeline from Lebaksiu Reservoir to the Brebes Regency, Tegal City, Tegal Regency
- Construction of Babakan Reservoir with capacity of 5,000 m<sup>3</sup>.
- Rehabilitation of Gombong Spring Broncaptering.
- Rehabilitation of the transmission pipeline from the Kaligiri Spring to the Babakan Chamber with Dn 400 steel pipe along 35 km.

## 4. Technical Specification

Project technical specification will be further studied during finalization of FBC Report.

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Any environmental document requirement will be identified in the OBC/FBC.

## 6. Land Acquisition and Resettlement Action Plan

Land acquisition will be part of GCA's responsibility. In preliminary study, the construction of reservoir would need around 10,000 m<sup>2</sup> of land to be acquired. The detailed land acquisition and resettlement action plan will be prepared in OBC/FBC.

## 7. Project Cost Structure

Estimated Project Cost	Under Calculation
Indicative Debt to Equity Ratio	
- Debt Level	Under Calculation
- Equity Level	Under Calculation
IRR	Under Calculation
NPV	Under Calculation

## **8. Government Support and Guarantee**

Government Support and guarantee will be identified during OBC/FBC preparation.

## **9. Contact Information**

Name : Anom Guritno, ST, M.Ling

Position : Technical Director of PDAB Tirta Utama

Phone : +628156523305

Email : anomguritno@yahoo.com

Name : Khusnul H Sambodja, ST

Position : Head of Division Monitoring and Evaluating PDAB Tirta Utama

Phone : +6282138883324

Email : [envirocker@gmail.com](mailto:envirocker@gmail.com)

## WOSUSOKAS REGIONAL WATER SUPPLY SYSTEM PHASE II

Location : Surakarta and Sukoharjo, Central Java Province

### Sector : Drinking Water



### Sub-Sector : Water Supply System

#### Description:

Wosusokas Regional Water Supply System provide clean water for population in Wonogiri Regency, Karanganyar Regency, Sukoharjo Regency and Surakarta City. The needs for clean water will be increase due to the growing population in this area. The project will be done in two phases with phase II to be constructed using PPP scheme.

**Estimated Project Cost:** Under Calculation

#### Financial Feasibility:

IRR : Under Calculation

NPV : Under Calculation

**Estimated Concession Period:** Under Review

#### Government Contracting Agency:

Director of PDAB Tirta Utama

#### Type of PPP:

Solicited

#### Return of Investment:

Under Review

### Indicative Project Schedule



Project Status : Preliminary Study

### Indicative Project Structure

Will be determined in OBC/FBC

## Project Digest

Project Title	Wosusokas Regional Water Supply System Phase II
Government Contracting Agency	Director of PDAB Tirta Utama
Implementing Unit	Under Review
Preparation Agency	Under Review
Project Cost	Under Calculation
Estimated Concession Period	Under Review
Location	Sukoharjo Regency and Surakarta City, Central Java Province

### 1. Project Picture (Map and/or Illustration of Project)

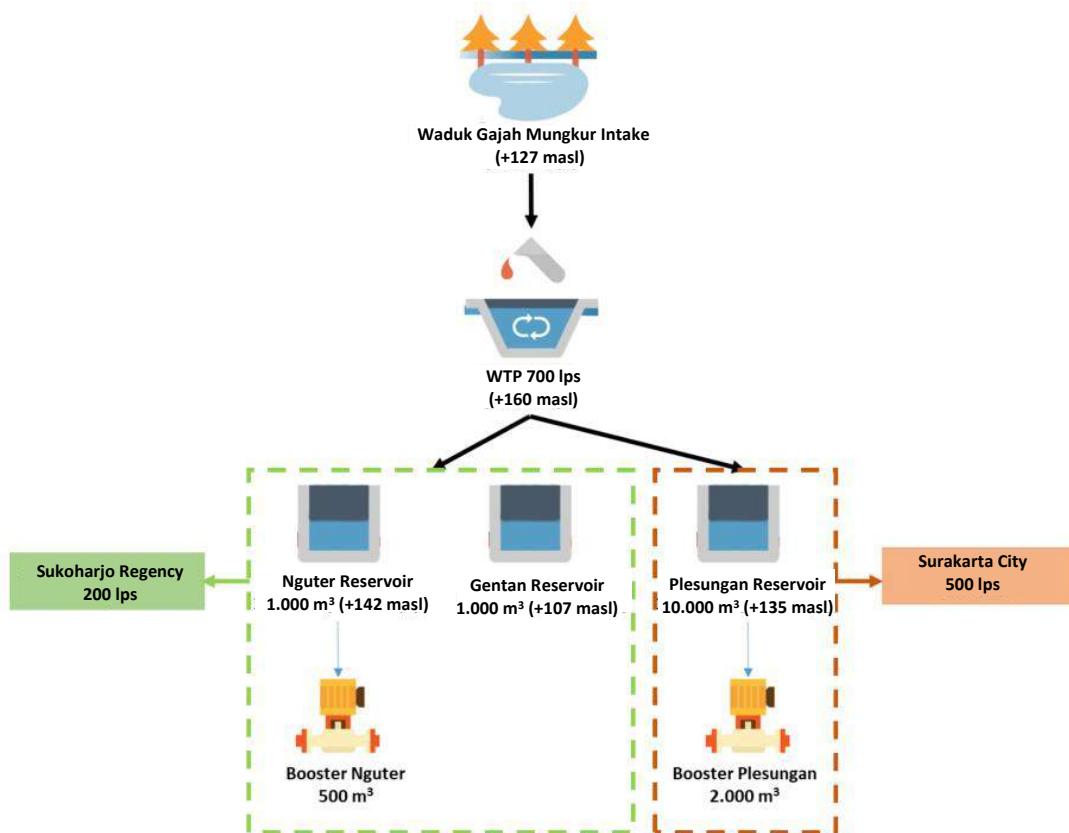


Figure 1 –Schematics of Wosusokas Regional Water Supply System Phase II

### 2. The Opportunity

#### 2.1. Project Background

Central Java as one of the most populated provinces in Indonesia needs to have proper water supply system to fulfill the needs of water supply for the community. Wosusokas Regional Water Supply System is one the system that will cover areas in Wonogiri Regency, Sukoharjo Regency, Karanganyar Regency and Surakarta City. It is estimated that in 20 years, the region would need approximately 9,300 lps of water supplied through its system. Currently, the water production capacity is only 1,757. To fulfill this gap, Wosusokas Water Supply System needs to be upgraded and expanded.

## **2.2. Project Description**

The Wosusokas Regional Water Supply System will consist of construction of new water intake from Wonogiri Multipurpose Dam, Main Transmission Pipe, Water Treatment Plant, Distribution Units and Customer Connection for nearly 116,000 connections.

It will be separated into two phases. Phase I of the project will construct WTP with capacity of 750 lps to supply water to 60,000 customer connections, with details as follows:

- Wonogiri Regency with 16,000 connections
- Sukoharjo Regency with 24,000 connections
- Surakarta City with 16,000 connections
- Karanganyar Regency with 4,000 connections

While the Phase II will construct WTP with capacity of 700 lps to supply 56,000 customer connections in Sukoharjo (16,000 connections) and Surakarta (40,000 connections) only.

## **2.3. Project Objectives**

The purpose for the development of Wosusokas Regional Water Supply is to:

- Utilize the potential of fresh water that can be used
- Help regencies / cities that do not have and or have limited sources of water
- Increase efficiency of existing drinking water services in each regency / city area.

## **3. Business Entity's Scope of Work**

The project will implement Build-Operate-Transfer scheme with scope of work is as follows:

- Construction of Water Treatment Plant (WTP) with capacity of 700 lps and Clear Well 2,500 m<sup>3</sup>.
- Construction of Main Distribution Pipe and corresponding Piping Bridge.
- Construction of Nguter Reservoir System with capacity of 1,000 m<sup>3</sup>.
- Construction of Gentan Reservoir System with capacity of 1,000 m<sup>3</sup>.
- Construction of Plesungan Reservoir System with capacity of 10,000 m<sup>3</sup>.
- Construction of Nguter Booster System with capacity of 500 m<sup>3</sup>.
- Construction of Plesungan Booster System with capacity of 2,000 m<sup>3</sup>.

The Business Entity will then operate the facility and transfer it back to the GCA after concession period.

## **4. Technical Specification**

Project technical specification will be further studied during finalization of FBC Report.

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

EIA document has been prepared by Government of Central Java Province in 2013. It will be updated to accommodate new project scope during the preparation stage.

## **6. Land Acquisition and Resettlement Action Plan**

Land acquisition will be part of GCA's responsibility. It is indicated in preliminary study that the project will need 352,700 m<sup>2</sup> of land, with 304,500 m<sup>2</sup> is located in government land. Of the remaining 48,200 m<sup>2</sup> of land, 36,000 m<sup>2</sup> have been acquired. More than 12,000 m<sup>2</sup> of land could not be acquired due to technical issue. However, it has been confirmed that the project can be done using the currently acquired land. The detailed land acquisition and resettlement action plan will be prepared in OBC/FBC.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>Under Calculation</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under Calculation
- <b>Equity Level</b>	Under Calculation
<b>IRR</b>	Under Calculation
<b>NPV</b>	Under Calculation

## **8. Government Support and Guarantee**

Government Support and guarantee will be identified during OBC/FBC preparation.

## **9. Contact Information**

Name : Anom Guritno, ST, M.Ling

Position : Technical Director of PDAB Tirta Utama

Phone : +628156523305

Email : [anomguritno@yahoo.com](mailto:anomguritno@yahoo.com)

Name : Khusnul H Sambodja, ST

Position : Head of Division Monitoring and Evaluating PDAB Tirta Utama

Phone : +6282138883324

Email : [envirocker@gmail.com](mailto:envirocker@gmail.com)

# **UNDER PREPARATION PROJECTS**

## **Waste Management:**

1. Construction of Waste to Energy Facility in South Tangerang
2. Legok Nangka Regional Waste Processing Facility
3. Sarbagita Suwung Waste to Energy Facility
4. Jatibarang Waste to Energy Facility
5. Development of Piyungan Landfill
6. Integrated Hazardous Waste Management System in Sumatera and Sumabapua

## CONSTRUCTION OF WASTE TO ENERGY FACILITY IN SOUTH TANGERANG

Location : South Tangerang, Banten Province

Sector : Waste Management	Sub-Sector : Waste to Energy
 	<p><b>Description:</b> Waste management of 800 tonnes per day is located in Cipeucang Landfill, South Tangerang, Banten. Conversion of waste to electricity with output capacity to be determined and Purchase Agreement with PLN. Scope of this project are design, build, finance, operate, maintain the WTE plant and supporting infrastructure.</p> <p><b>Estimated Project Cost:</b> USD 126.16 Million</p> <p><b>Financial Feasibility:</b> IRR : 10% NPV : USD 140.14 Million</p> <p><b>Estimated Concession Period:</b> 3 years construction and 20 years operation.</p>
<p><b>Government Contracting Agency:</b> Mayor of South Tangerang City</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	

### Indicative Project Schedule



Project Status : Final Business Case

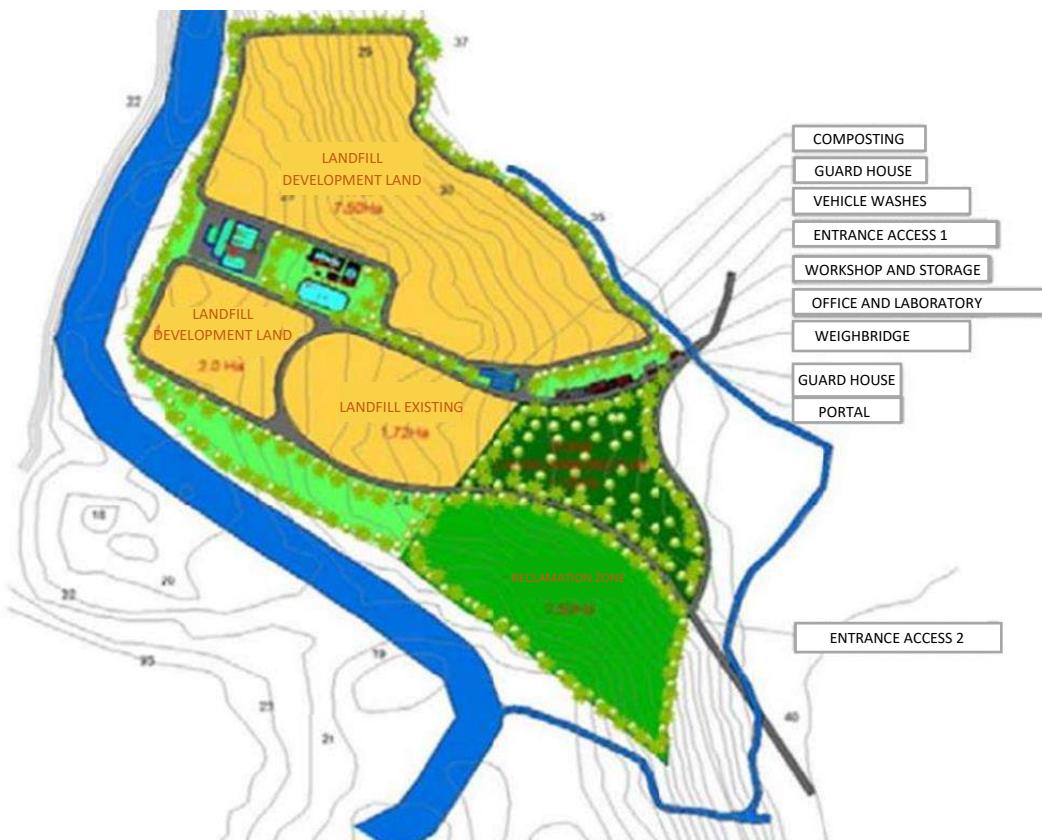
### Indicative Project Structure



## Project Digest

<b>Project Title</b>	<b>Construction of Waste to Energy Facility in South Tangerang</b>
<b>Government Contracting Agency</b>	The Mayor of South Tangerang City
<b>Implementing Agency</b>	Environment Agency of South Tangerang
<b>Preparation Agency</b>	Environment Agency of South Tangerang
<b>Project Cost</b>	USD 126.16 Million
<b>Estimated Concession Period</b>	3 years construction and 20 years operation
<b>Location</b>	South Tangerang, Banten Province

### 1. Project Picture (Map and/or Illustration of Project)



**Picture 1 – Layout of South Tangerang Waste to Energy**

### 2. The Opportunity

#### 2.1. Project Background

Population growth and continuous industrialization in South Tangerang will increase the amount of waste generated. In 2017, Municipal Solid Waste (MSW) in South Tangerang was 970 tonnes/day, most are buried in unhealthy ways. South Tangerang City needs a stable and efficient solid waste management plan to use solid waste to produce renewable energy. This is the reason South Tangerang City has planned to build and operate Waste to Energy facilities.

## **2.2. Project Description**

The description of this project is as follows:

Project Name	: Waste to Energy
Project Location	: Cipeucang Landfill, South Tangerang, Banten
Project Method	: Build – Operate – Transfer (BOT)
Project Area	: 4 hectares
Estimated Cost	: 126,16 Million USD
Financing scheme	: Public Private Partnership
Government Contracting Agency	: Mayor of South Tangerang City
Concession	: 23 years (3 years construction and 20 years operation)
Waste volume / capacity	: 800 tonnes/day

## **2.3. Project Objectives**

The objectives of South Tangerang Waste to Energy is to operate a solid waste treatment facility with the Build – Operate – Transfer (BOT) scheme. This project will build a solid waste treatment facility for South Tangerang and will contribute to the environmentally friendly solid waste management and economically efficient.

## **3. Business Entity's Scope of Work**

Build – Operate - Transfer

Project scope is as follows:

1. To design, build, finance, operate and maintain WtE plant and its supporting infrastructures at Cipeucang landfill. In the end of concession period, the facility must be handed over to the GCA;
2. To build a transmission line and hand it over to PT. PLN upon completion;
3. To operate and maintain the existing landfill in Cipeucang; and
4. To comply with Government Regulation Number 47 Year 2012 regarding Corporate Social Responsibility (CSR).

## **4. Technical Specification**

The technical specifications for South Tangerang Waste to Energy are as follows:

No	Facilities	Capacity
1	Area	4 hectare
2	Incineration capacity	800 tonnes/day (400 tonnes/days x 2 units)
3	Electricity generated	11.7 MW
4	Electricity sold	10.0 MW

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents will be prepared by the Special Purpose Company.

## **6. Land Acquisition and Resettlement Action Plan**

According to OBC document, currently 13.6 hectares (including existing landfill) is owned by the South Tangerang Government and it requires the provision of additional land of 1.4 hectares to supporting facilities. Further mapping of the existing land status and the land area that need to be expanded will be assessed in the subsequent studies.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 126.16 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	75%
- <b>Equity Level</b>	25%
<b>IRR</b>	10%
<b>NPV</b>	USD 140.14 Million

## **8. Government Support and Guarantee**

Outline business case study indicates the government support options for this project, namely Viability gap fund (VGF) and tax incentives.

## **9. Contact Information**

Name : Wisman Syah, ST, M.Si

Position : Head of Waste Management, Environment Agency of South Tangerang Municipality

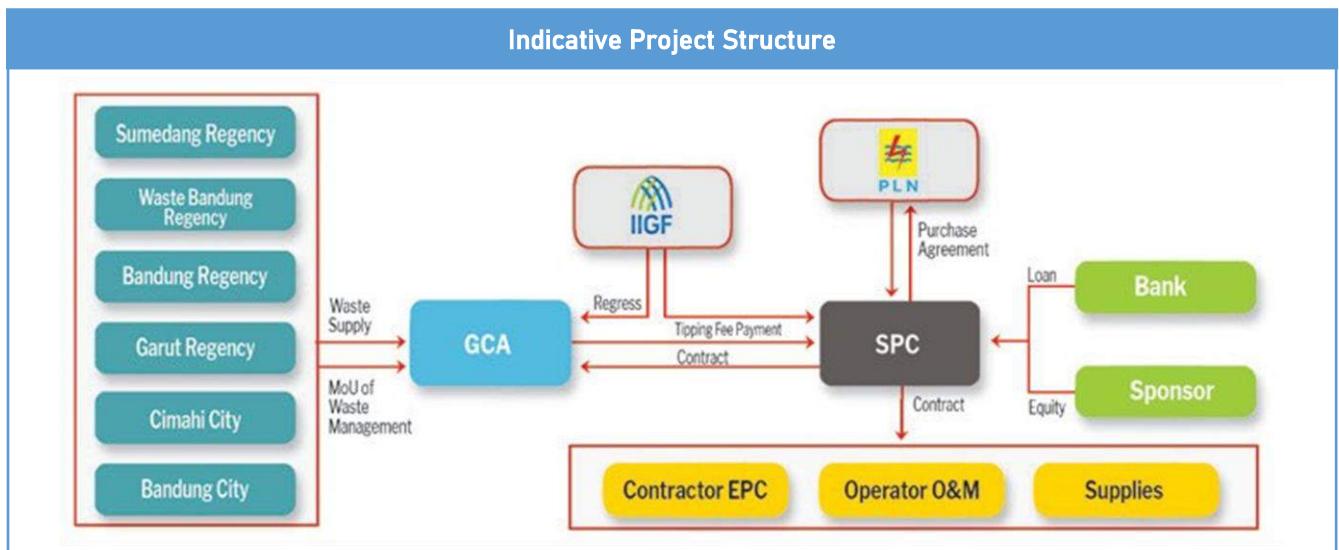
Phone : 08121338136

Email : alif\_wisman@yahoo.co.id

## LEGOK NANGKA REGIONAL WASTE PROCESSING FACILITY

Location : West Java Province

Sector : Waste Management	Sub-Sector : Waste Processing
	<p><b>Description :</b> Waste management of 1,853 – 2,131 tonnes per day of waste sourced from 6 municipalities (Bandung Regency, Bandung City, Sumedang Regency, Cimahi City, West Bandung Regency, and Garut Regency) located in Legok Nangka, West Java. Scope: Design, Build, Finance, Operate, maintain the WTE plant and supporting infrastructure.</p>
<p><b>Government Contracting Agency:</b> Governor of West Java</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	<p><b>Estimated Project Cost:</b> USD 253.05 Million</p> <p><b>Financial Feasibility:</b> IRR : 13.30% NPV : USD 49.65 Million</p> <p><b>Estimated Concession Period:</b> 2 years construction and 20 years operation</p>



## Project Digest

<b>Project Title</b>	Legok Nangka Regional Waste Processing Facility
<b>Government Contracting Agency</b>	Governor of West Java
<b>Implementing Agency</b>	Regional Environmental Agency of West Java
<b>Preparation Agency</b>	PDF from Ministry of Finance
<b>Project Cost</b>	USD 235.05 Million
<b>Estimated Concession Period</b>	20 years (excluding 2 years construction period)
<b>Location</b>	West Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Legok Nangka Regional Waste Treatment

### 2. The Opportunity

#### 2.1. Project Background

West Java Province has rapidly growing population and urbanization rate, reaching 46 million people in 2017. The number is estimated to increase to more than 57 million in 2035 and approximately more than 67.5 million in 2050. Population growth combined with increasing income per capita and change in consumption will generate larger demand for Municipal Solid Waste Management. Regarding this issue, West Java Government need to handle because the current Waste Management facility will be over capacity and out of order after 2020.

## 2.2. Project Description

A total of 1,853 – 2,131 tonnes per day (tpd) of municipal solid waste (MSW) is intended to be processed at Legok Nangka WtE plant which will be supplied from six municipalities including Bandung City, Bandung Regency, Cimahi City, West Bandung Regency, Garut Regency, and Sumedang Regency.

## 2.3. Project Objectives

The objectives of Legok Nangka Regional Waste Treatment are as follows:

- To build Regional Waste Treatment facility for Bandung City, Bandung Regency, Cimahi City, West Bandung Regency, Garut Regency, and Sumedang Regency.
- To support the national target of renewable energy usage 25% from total national energy consumption in 2025 – as in Minister of Energy and Mineral Resources Decree No. 70/2014.
- To increase municipalities' health and sanitation quality.
- To reach 85% efficiency of waste treatment.
- To apply international emission standard waste management technology with minimal hazardous secondary product.
- To optimize the value of waste by transforming it into commercial product.
- To support circular economy concept where the sustainable waste management system could produce electricity for the municipalities.

## 3. Business Entity's Scope of Work

Project scope is as follows:

1. Design, Build, Finance, Operate, and Maintain the Waste Treatment Plant and Supporting Infrastructures. In the end, the facility must be transferred back to the GCA.
2. Operate and Maintain existing landfill in Legok Nangka Site.
3. Design and Build transmission networks and hand over to PT PLN upon completion.

## 4. Technical Specification

Based on data sampling at Sarimukti landfill, the three dominant waste products Bandung City and Regency are organic waste (>55%), plastics (>20%) and hygiene products (≈6%). The Legok Nangka Regional Waste Treatment Installation output specification should provide:

- prevention system for greenhouse gases production
- Persistent Organic Pollutant elimination
- Potential to Emit material catchment and immobilization
- Pathogen elimination

Item	Performance	
	Minimum Requirement	Additional Requirement
Waste Reception Service/Truck Weighing Information System	Digitalized	Online
Waste Reception Service – Waste Disposal Platform Capacity Emission	1,853 tonnes per 9 hours	> 1,853 tonnes per 9 hours

Item	Performance	
	Minimum Requirement	Additional Requirement
<b>Free Temporary Shelter</b>	9,225 tonnes	> 9,225 tonnes
<b>Leachate and Wastewater Management</b>	All leachate and waste water	
<b>Waste Management Capacity</b>	673,425 tonnes/year	Max 774,439 tonnes/year or 15% of requirement above
<b>Installation Availability</b>	7,800 hours/year	> 7,800 hours/year
<b>Water Consumption</b>	Max 20 liters/second	< 10 liters/second
<b>Emission Standard</b>	Equal to Chinese Standard (GB18482-2001)	Equal to USA/Japanese Standard
<b>Residue Disposal</b>	276.7 tonnes/day	< 276.7 tonnes/day
<b>Waste Management in Landfill</b>	Minister of Public Works and Housing Regulation No. 3/2013	Not Applicable

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Legok Nangka Regional Waste Treatment Project requires to provide AMDAL documents. The documents will be prepared by the Government Contracting Agency.

## 6. Land Acquisition and Resettlement Action Plan

The Land Acquisition will be done by the GCA, in progress for minor additional land. Further plan will be available after finalization of FBC document.

## 7. Project Cost Structure

Estimated Project Cost	USD 253.05 Million
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	70%
- <b>Equity Level</b>	30%
<b>IRR</b>	13.30 %
<b>NPV</b>	USD 49.65 Million

## 8. Government Support and Guarantee

GCA will propose government guarantee and support. The feed-in tariff will obey Presidential regulation, Government of West Java committed to pay the required tipping fee.

## 9. Contact Information

Name : Ir. Edi Bahtiar H, M.Sc

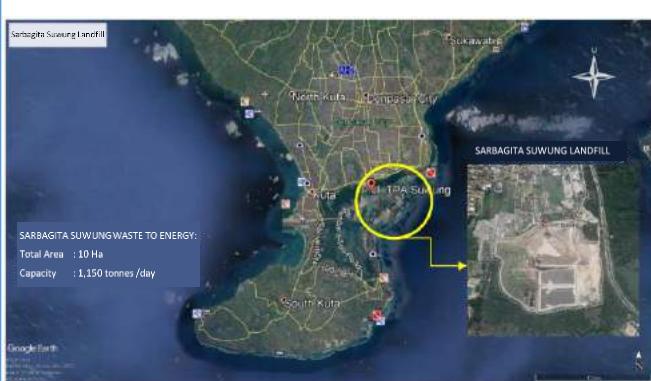
Position : Head of West Java Regional Solid Waste Management

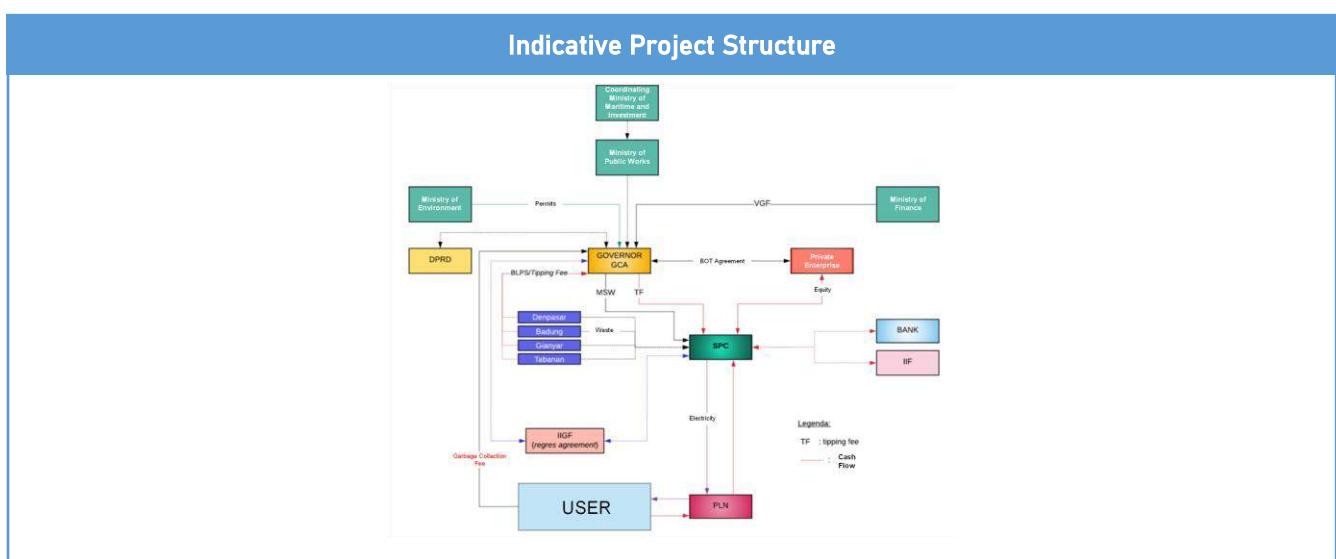
Phone : +62-22-7319782, +62-22-7319735

Email : pstrdlhprovjabar@gmail.com

## SARBAGITA SUWUNG WASTE TO ENERGY FACILITY

Location : Bali Province

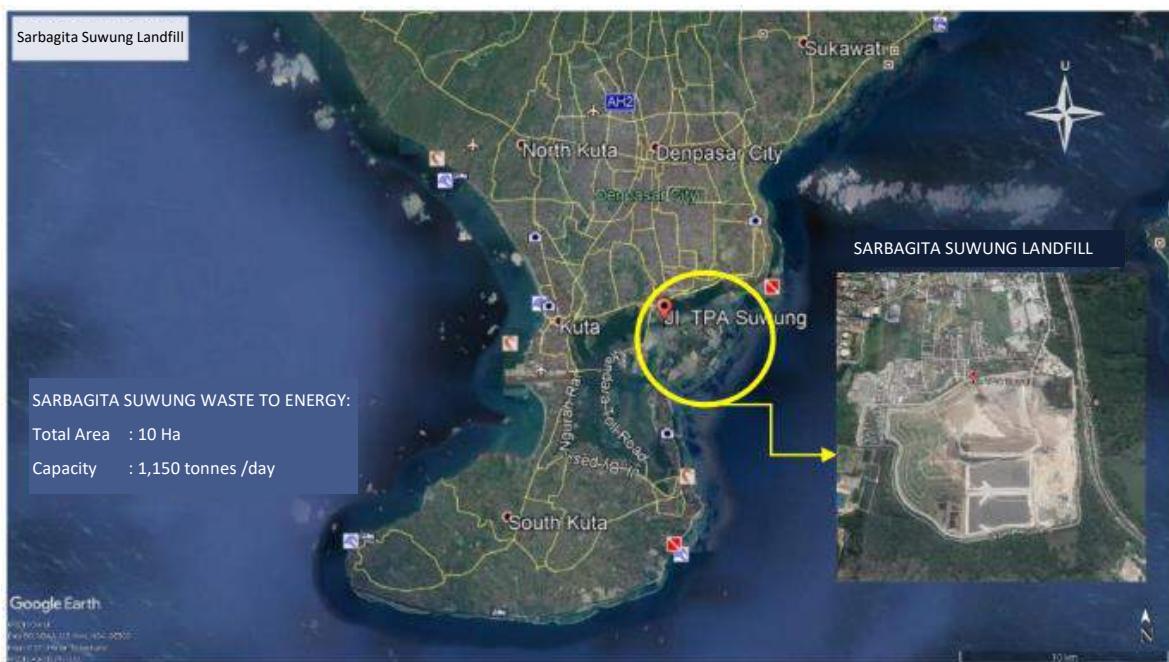
Sector : Waste Management	Sub-Sector : Waste to Energy
 <p><b>SARBAGITA SUWUNG LANDFILL</b></p> <p>SARBAGITA SUWUNG WASTE TO ENERGY: Total Area : 10 Ha Capacity : 1,150 tonnes/day</p>	<p><b>Description:</b> Bali is planning to construct WtE plant to improve waste management services in Bali Province, especially in the areas of Denpasar, Badung, Gianyar and Tabanan. The plant will have a waste input capacity of 1,350 tonnes / day and electricity production capacity of 19.5 MW. This development will make waste management in Bali environmentally friendly and cost efficient.</p>
<p><b>Government Contracting Agency:</b> The Governor of Bali</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	<p><b>Estimated Project Cost:</b> USD 163.50 Million</p> <p><b>Financial Feasibility:</b> IRR : 13.70% NPV : USD 3.20 Million</p> <p><b>Estimated Concession Period:</b> 20 years.</p>



## Project Digest

<b>Project Title</b>	Sarbagita Suwung Waste to Energy Facility
<b>Government Contracting Agency</b>	Governor of Bali
<b>Implementing Agency</b>	Forestry and Environment Agency of Bali
<b>Preparation Agency</b>	Forestry and Environment Agency of Bali
<b>Project Cost</b>	USD 163.50 Million
<b>Estimated Concession Period</b>	20 years operation
<b>Location</b>	Suwung, Bali Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Location of Sarbagita Suwung Waste to Energy

### 2. The Opportunity

#### 2.1. Project Background

Bali is one of the provinces in Indonesia known as the Paradise Island. Bali is located between Java and Lombok. The capital of the Province of Bali is the City Denpasar, located in the southern part of the island. The Province of Bali needs improvement and expansion waste treatment facilities and associated urban infrastructure, along with the increase the amount of waste generated due to population growth, industrialization, and tourism continuously. Based on data from the Preliminary Study of the Provincial Government of Bali (2019), total SARBAGITA landfill waste in Suwung reaches 1,400 tonnes / day, with the percentage of contributors the biggest waste is Denpasar City, which is 50% or equivalent to 740 tonnes / day.

The Province of Bali needs to use waste to produce new and renewable energy building a stable and efficient waste disposal plan. Waste Processing Technology Being Electrical Energy (PSEL) provides an opportunity to significantly reduce the amount of waste disposed of in landfills and also to recover energy and output other benefits of urban waste flow in Indonesia. This is the reason why the Province of Bali has planned to build and operate a PSEL facility.

## 2.2. Project Description

The project will consist of Building a Waste to Energy plant in Suwung landfill capable of processing 1,350 ton of municipal waste per day and producing 19.5 MW of electricity. Incinerator will be used to process the waste and produce energy. A WtE power plant consists of 3 processes - pre-treatment and incineration, energy recovery, and pollution control.

1. Pre-processing and incineration - Trash is shipped by truck and stored in a bunker before being moved to the incinerator. Waste will then be burned and reduced in both weight and volume in the incinerator.
2. Energy recovery - The flue gas (hot garbage) from the incinerator is then channeled to the boiler for steam produce steam which is used to drive a steam turbine generator for electricity generation and finally condensed.
3. Pollution control - Residue from incineration (bottom ash and fly ash) and flue gas that comes out from the boiler will then be processed before being discharged to the landfill and the respective atmosphere

## 2.3. Project Objectives

The purpose of this project is to operate a waste to energy facility under the BOT scheme. This project will build a waste to energy facility for Bali and will contributes to the management of environmentally friendly and economically efficient waste management system.

## 3. Business Entity's Scope of Work

Build – Operate – Transfer

Project scope is as follows:

1. To design, build, finance, operate and maintain WtE plant and its supporting infrastructures at Suwung landfill. In the end of concession period, the facility must be handed over to the GCA;
2. To build a transmission line and hand it over to PT. PLN upon completion;
3. To operate and maintain the existing landfill in Suwung;
4. To comply with Government Regulation Number 47 Year 2012 regarding Corporate Social Responsibility (CSR).

## 4. Technical Specification

The technical specifications for Sarbagita Waste to Energy are as follows:

No	Facilities	Capacity
1	Area	14.1 hectare
2	Incineration capacity	1,150 tonnes/day
3	Electricity sold	19.5 MW

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents will be prepared by the Special Purpose Company.

## **6. Land Acquisition and Resettlement Action Plan**

According to OBC document, the whole project would need about 14.1 hectares of land to be built. 4.1 hectares is located in the mangrove area.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 163.50 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	70%
- <b>Equity Level</b>	30%
<b>IRR</b>	13.70 %
<b>NPV</b>	USD 3.20 Million

## **8. Government Support and Guarantee**

Outline business case study indicates the government support options for this project, namely Project Development Facility (PDF) for FBC and transaction preparation Viability gap fund (VGF), construction support especially for land preparation, guarantee from IIGF and Tipping Fee Support / BBLPS (*Bantuan Biaya Langsung Pengolahan Sampah*).

The guarantee will be needed to ensure quantity and quality of waste input, sovereign guarantee and other applicable guarantee from IIGF.

## **9. Contact Information**

Name : I Ketut Gede Arnawa

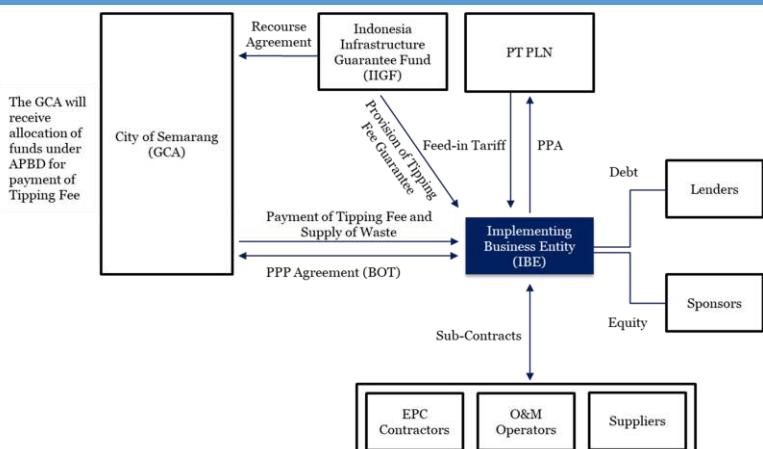
Position : Head of Government Cooperation

Phone : +62812 398 7052

Email : ketutarnawa69@gmail.com

## JATIBARANG WASTE TO ENERGY FACILITY

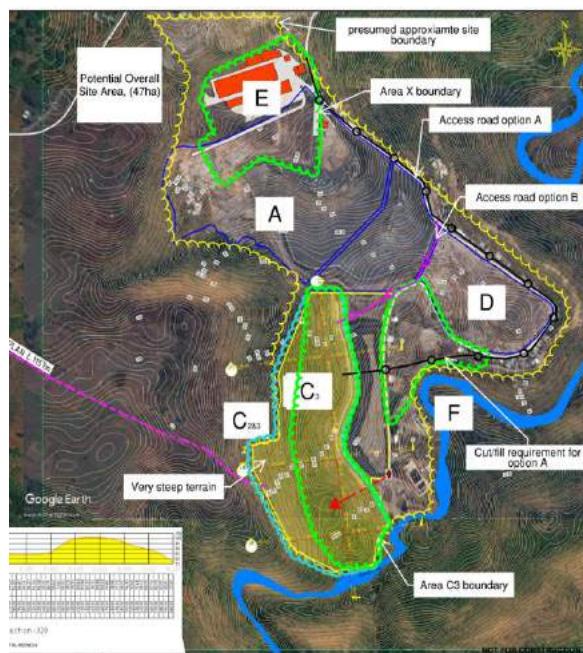
Location : Semarang, Central Java Province

Sector : Waste Management	Sub-Sector : Waste to Energy
	<p><b>Description:</b>            Jatibarang WtE Project is one of the National Strategic Projects under Presidential Regulation No. 3/2016. The existing landfill site at Jatibarang will reach its maximum capacity within the next few years. The potential private sector partner will be responsible for designing, building, financing, operating, maintaining, and transferring (DBFOMT) the WtE plant, which has a proposed capacity of 1,000 tonnes/day of municipal solid waste.</p>
<p><b>Government Contracting Agency:</b>            The Mayor of Semarang City</p> <p><b>Type of PPP:</b>            Solicited</p> <p><b>Return of Investment:</b>            User Charge</p>	<p><b>Estimated Project Cost:</b> USD 194.44 Million</p> <p><b>Financial Feasibility:</b>            IRR : Under Calculation            NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> 20 years</p>
<b>Indicative Project Schedule</b>	
	
<p><b>Project Status :</b> Final Business Case</p>	
<b>Indicative Project Structure</b>	
 <p>The GCA will receive allocation of funds under APBD for payment of Tipping Fee</p>	

## Project Digest

Project Title	Jatibarang Waste to Energy Facility
Government Contracting Agency	The Mayor of Semarang City
Implementing Agency	Regional Planning Agency of Semarang City
Preparation Agency	Regional Planning Agency of Semarang City
Project Cost	USD 194.44 Million
Estimated Concession Period	20 years
Location	Semarang City, Central Java Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Jatibarang Waste to Energy

### 2. The Opportunity

#### 2.1. Project Background

A new and improved scheme for solid waste management and operations is required for Semarang City. The volume of incoming MSW to TPA Jatibarang, which is estimated to be 1,126 tonnes/day in 2020, will nearly double to 1,938 tonnes/day by 2040. Furthermore, existing activities at TPA Jatibarang have been deemed inadequate to reduce waste disposal.

As stated in Perpres No. 3/2016, Appendix point L, in conjunction with Perpres No. 58/2017, the proposed Semarang WtE facility is classified as a PSN. It is also part of the Committee for the Acceleration of Priority Infrastructure Delivery (KPIP) Priority Project list, based on the Coordinating Ministry for Maritime Affairs (CMMA) Regulation No. 5/2017. Moreover, Semarang is on the list of cities under Perpres No. 35/2018 that will be supported by the Central Government in developing a WtE facility which is based on environmentally friendly technology.

## **2.2. Project Description**

The proposed site's distance from the waste catchment area (Semarang City) supports effective waste transportation since Jatibarang is only located 11 km west from the Semarang City Centre (Simpang Lima) and is accessible via sealed roads. Total land available for the proposed project is approximately 4.2 hectare. TPA Jatibarang will continue to accommodate MSW at predicted rates until the Project is operational, as well as during the Project's operational phase, to accommodate rejected materials. The potential private sector partner will be responsible for designing, building, financing, operating, maintaining, and transferring (DBFOMT) the WtE plant, which has a proposed capacity of 1,000 tonnes/day of municipal solid waste (MSW).

## **2.3. Project Objectives**

The objectives of Jatibarang Waste to Energy are as follow:

- To manage and reduce solid waste effectively;
- To process around 1,000 tonnes/day of MSW; and
- To reduce the MSW disposed of in landfill by ± 80%.

## **3. Business Entity's Scope of Work**

At this stage, PLN suggests that the IBE will be responsible for designing, building, operating, and maintaining the transmission line until the end of the concession period. This is to be further discussed with PLN and GCA.

## **4. Technical Specification**

At a minimum, the Project must comply with the following regulations:

1. Ministry of Environmental and Forestry Affairs Regulation No. P.59/MENLHK/SETJEN/KUM.1/7/2016 on Standard Quality of Leachate for Business and/or Activities of Final Waste Processing Sites (MEFA P.59/2016);
2. Ministry of Environmental and Forestry Affairs Regulation No. P.63/MENLHK/SETJEN/KUM.1/7/2016 on the Requirements and Procedures for Hazardous and Toxic Waste Landfill in Final Disposal Sites (MEFA P.63/2016);
3. Ministry of Environmental and Forestry Affairs Regulation No. P.70/MENLHK/SETJEN/KUM.1/8/2016 on Standard Quality of Business Emission and/or Thermal Waste Management Activities (MEFA P.70/2016); and
4. Ministry of Public Works Regulation No. 03/PRT/M/2013 of 2013 on Implementation of Solid Waste Infrastructure and Facilities in Household Waste and Household-like Waste Handling.

The proposed output specification as follow:

1. Provide reception facilities that can quantify and monitor the quantity and quality of waste delivered to the facility;
2. Process ± 1,000 tonnes/day of MSW through the facility;
3. Divert a minimum of 80% on a mass basis of Accepted MSW from landfill per year through the facility; and

4. Operate for 20 years and meet, at a minimum, the equivalent of the higher of international or Indonesian environmental standards for air emissions.
- 5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The GCA has completed AMDAL and obtained an Environmental License. The technical planning for the Project (including the design criteria) must comply with this Environmental License. Within the permitted scope of the Environmental License is construction of a 16MW WtE power plant in TPA Jatibarang. In addition, among the permitted technology for a WtE power plant is an incinerator that operates on 4 ha land with a capacity of 38 tonnes/hour and a waste volume of 1,020 tonnes/day. The applicable environmental standards (e.g. emission standards, residual waste treatment, leachate water treatment, etc.) must also be noted. Upon the execution of the PPP Agreement, the IBE will be responsible to carry out any necessary updates or amendments to the Project's AMDAL documentation and Environmental License according to the IBE's committed technical and financial solutions.

**6. Land Acquisition and Resettlement Action Plan**

The nominated site for the WtE plant will be located within TPA Jatibarang, which is currently owned by the GCA. Accordingly, no land acquisition is anticipated to be required, except for certain rights of way for land access, or the placement of pipes and cables (including but not limited to the transmission line).

**7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 194.44 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
-	<b>Debt Level</b>	Under Calculation
-	<b>Equity Level</b>	Under Calculation
<b>IRR</b>		Under Calculation
<b>NPV</b>		Under Calculation

**8. Government Support and Guarantee**

The project is indicated to require government support in the form of Tipping Fee and potentially be guaranteed by the Indonesia Infrastructure Guarantee Fund (IIGF).

**9. Contact Information**

Name : Ismet Adipradana

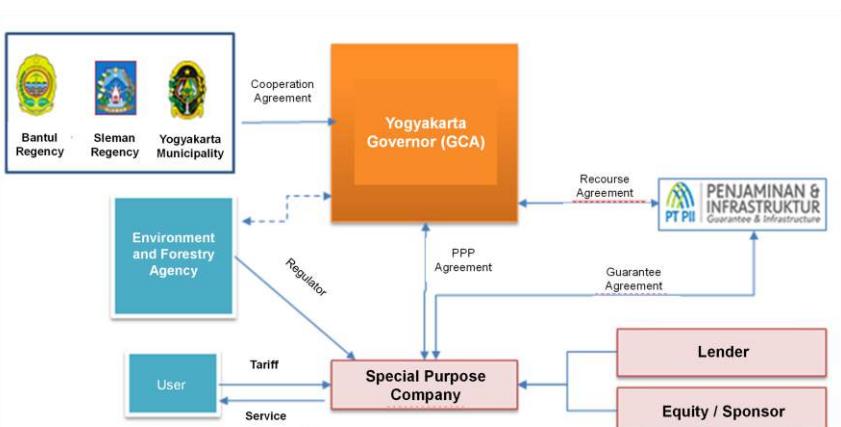
Position : Regional Planning Agency of Semarang City

Phone : +62 822 2558 7162

Email : bappeda@semarangkota.go.id; ismetadipradana@semarangkota.go.id

## DEVELOPMENT OF PIYUNGAN LANDFILL

Location : Bantul, Yogyakarta Province

Sector : Waste Management	Sub-Sector : Landfill
 <p><b>Piyungan Landfill Location:</b></p> <p>The map shows the administrative divisions of Yogyakarta Province, including Kabupaten Magelang, Kabupaten Sleman, Kabupaten Bantul, and the City of Yogyakarta. The Piyungan Landfill is located in the Bantul Regency area, indicated by a blue arrow pointing from the text to the map.</p>	<p><b>Description:</b> The project aims to develop current landfill (TPA) waste management system in Piyungan Landfill. Private partner shall be responsible to finance, design, construct, operate, and maintain Piyungan Landfill.</p> <p><b>Estimated Project Cost:</b> USD 15.18 Million</p> <p><b>Financial Feasibility:</b> IRR : Under Calculation NPV : Under Calculation</p> <p><b>Estimated Concession Period:</b> 25 years.</p>
<p><b>Government Contracting Agency:</b> The Governor of Yogyakarta</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	
Indicative Project Schedule	
 <p><b>Indicative Project Schedule:</b></p> <ul style="list-style-type: none"> <li>FBC Q3 2020</li> <li>Pre-Qualification Q1 2021</li> <li>Request for Proposal Q1 2021</li> <li>Bid Award Q2 2021</li> <li>Agreement Signing Q3 2021</li> <li>Financial Close Q4 2021</li> <li>Construction Q1 2022</li> </ul>	
Project Status : Outline Business Case	
Indicative Project Structure	
 <p><b>Indicative Project Structure:</b></p> <p>The diagram illustrates the project structure with the following components and their interactions:</p> <ul style="list-style-type: none"> <li><b>Yogyakarta Governor (GCA):</b> The central authority.</li> <li><b>Special Purpose Company:</b> A red box at the bottom.</li> <li><b>Environment and Forestry Agency:</b> A blue box connected to the GCA.</li> <li><b>User:</b> A blue box connected to the Special Purpose Company.</li> <li><b>Lender:</b> A pink box connected to the Special Purpose Company.</li> <li><b>Equity / Sponsor:</b> A pink box connected to the Special Purpose Company.</li> <li><b>PT PII PENJAMINAN &amp; INFRASTRUKTUR:</b> A blue box connected to the GCA and the Special Purpose Company.</li> </ul> <p>Relationships are defined by the following agreements:</p> <ul style="list-style-type: none"> <li>Cooperation Agreement between Bantul Regency, Sleman Regency, and Yogyakarta Municipality and the GCA.</li> <li>Regulator between the Environment and Forestry Agency and the Special Purpose Company.</li> <li>Tariff and Service between the User and the Special Purpose Company.</li> <li>PPP Agreement between the GCA and the Special Purpose Company.</li> <li>Recourse Agreement between PT PII and the GCA.</li> <li>Guarantee Agreement between PT PII and the Special Purpose Company.</li> </ul>	

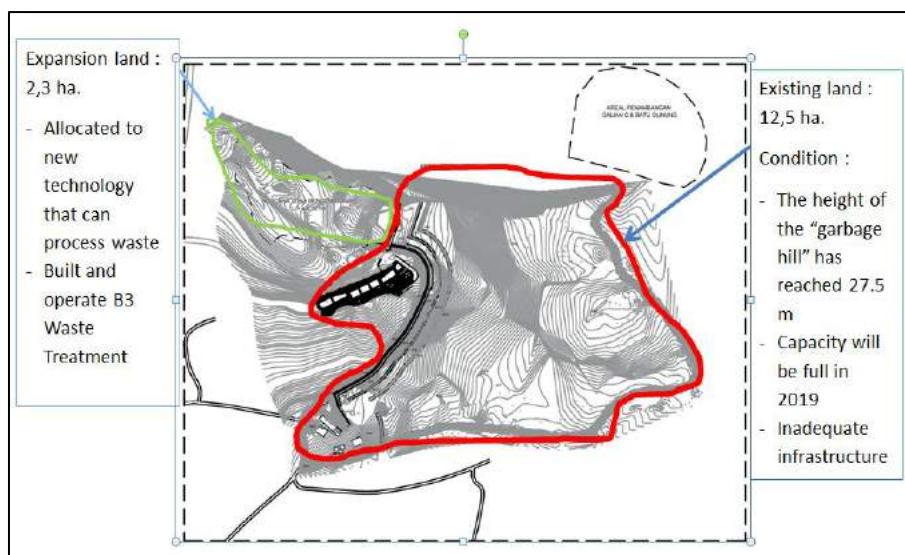
## Project Digest

<b>Project Title</b>	Development of Piyungan Landfill
<b>Government Contracting Agency</b>	Governor of Special Region of Yogyakarta
<b>Implementing Agency</b>	Department of Public Works, Housing, and Mineral Resources Energy
<b>Preparation Agency</b>	National Development Planning Agency
<b>Project Cost</b>	USD 15.18 million
<b>Estimated Concession Period</b>	25 years
<b>Location</b>	Bantul Regency, Special Region of Yogyakarta

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Map Location of Piyungan Landfill



Picture 2 – Masterplan of Piyungan Landfill

## **2. The Opportunity**

### **2.1. Project Background**

- The capacity of waste landfill (TPA) has been exceeded while there is an increase in the volume of waste that enters Piyungan Landfill, therefore appropriate technology and professional operation management are necessary.
- Insufficient land capacity in Piyungan Landfill to treat domestic waste and the absence of waste treatment to reduce the amount of domestic waste.
- Inadequate infrastructure in Piyungan Landfill.

### **2.2. Project Description**

- Average amount of waste that managed by Piyungan Regional Waste Landfill from Yogyakarta City, Sleman Regency, Bantul Regency is 650-700 ton/day
- The area of Piyungan Landfill is 12.5 ha, which 10 ha used for landfill land area that consist of 3 cells and another 2.5 ha used for supporting facilities (offices, workshops, weighbridges, and buffer zone).
- There was an expansion of new land of approximately 1,9 ha. This expansion land is planned to be used for new waste treatment technology. On 2020, Local Government will add new land approximately 3,1 ha.
- The landfill area that can be filled with waste is ± 72.620.83 m<sup>2</sup> (in 2017). However, this landfill area is estimated to be full in 2019.
- The project scope includes:
  - a. New waste treatment technology (Anaerobic Digester / Refuse Derived Fuel / etc.).
  - b. Methane gas production from waste processing that can be used as Incinerator or RDF energy
  - c. Waste sorting and processing facility
  - d. Landscape arrangement from its area & maintenance
  - e. Closed existing landfill
  - f. Operate and maintain Piyungan Landfill

### **2.3. Project Objectives**

This project aims to manage domestic waste to create a sanitary environment

## **3. Business Entity's Scope of Work**

The potential scope of partnership that can be carried out by investors, but not limited to the following, are:

1. Close existing landfill
2. New waste treatment technology (Anaerobic Digester / Refuse Derived Fuel / etc.).
3. Methane gas production from waste processing that can be used as Incinerator or RDF energy
4. Waste sorting and processing facility
5. Landscape arrangement from its area & maintenance
6. Operate and maintain Piyungan Landfill.

#### **4. Technical Specification**

This project aims to manage domestic waste based on the following regulations:

1. Regulation of the Minister of The Environment Republic of Indonesia Number 18 of 2009 about Procedures for Licensing Hazardous and Toxic Material Waste Management.
2. Regulation of the Minister of Public Works Republic of Indonesia Number 03/PRT/M/2013, about Implementation of Infrastructure and Facilities in Handling Households Waste and Other Type of Household Waste.
3. Local Regulation of Special Region of Yogyakarta Number 3 of 2013 about Households Waste and Other Type of Household Waste Management.

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Environmental Impact Assessment (AMDAL) of TPA Piyungan will be conducted on 2020.

#### **6. Land Acquisition and Resettlement Action Plan**

The area of Piyungan Landfill is 12.5 ha, which 10 ha used for landfill land area that consist of 3 cells and another 2.5 ha used for supporting facilities (offices, workshops, weighbridges, and buffer zone). There was an expansion of new land of approximately 5 ha ( 1,9 ha of land has been acquired and 3,1 ha will be acquired in 2020).

#### **7. Project Cost Structure**

Estimated Project Cost		USD 15.18 Million
Indicative Debt to Equity Ratio		
- Debt Level		70%
- Equity Level		30%
IRR		Under Calculation
NPV		Under Calculation

#### **8. Government Support and Guarantee**

Government supports are in the form of:

- Land provision, DIY Government provides land for construction of the project in Sitimulyo village, Piyungan.
- Permittance, the government is committed to provide necessary permits for the investors in the implementation of this project.
- Support for central government (Ministry of Public Works and Housing) in optimalization of Piyungan landfill and improving supporting facilities
- Support in the policy on building an integrated waste management infrastructure.

To mitigate the project's risks from changes in demand risk and shifts in political scenario, government guarantee may be required. In this regard, the level of risk perceived from investors will be determined at market sounding.

## **9. Contact Information**

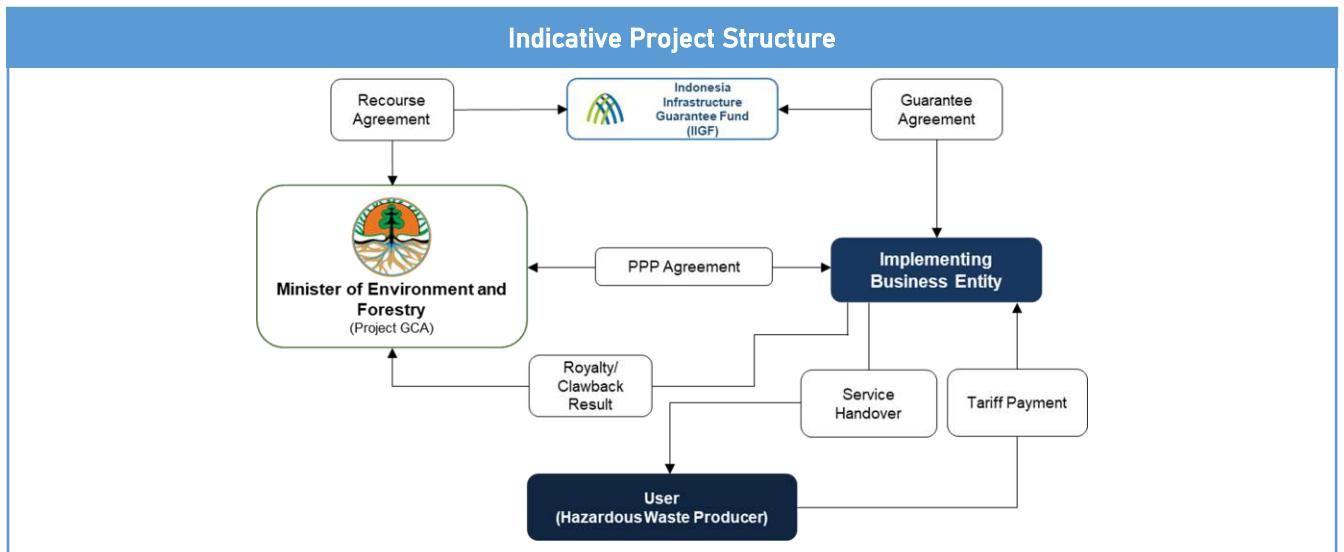
Name : Drs. Tri Saktiyana, M.Si  
Position : Assistant for Economic Affairs and Development of the Regional Secretariat  
Address : Komplek Kepatihan, Danurejan, Yogyakarta 55213  
Phone : +62 274 562811 / +62 81328286888  
Email : [santel@jogjaprov.go.id](mailto:santel@jogjaprov.go.id)

Name : Ir. Raden Sutarto, M.P  
Position : Head of Environment and Forestry Agencies  
Phone : +62 274 588 518 / +62 812 2717 926  
Email : [dishutbun.diy@gmail.com](mailto:dishutbun.diy@gmail.com)

## INTEGRATED HAZARDOUS AND SPECIFIC WASTE MANAGEMENT FACILITY IN SUMAPAPUA

Location : South Sulawesi Province

Sector : Waste Management	Sub-Sector : Hazardous Waste Management
	<p><b>Description:</b>  The amount of hazardous waste that can be managed is still inadequate compared to the production of hazardous waste for each year, so that hazardous waste management services are still needed. This project aims to develop Integrated Hazardous and Specific Waste Management Facility in Sumapapua Area with PPP scheme. The Project scheme implemented will be build-operate-transfer.</p>
<p><b>Government Contracting Agency:</b>  Minister of Environment and Forestry</p> <p><b>Type of PPP:</b>  Solicited</p> <p><b>Return of Investment:</b>  User Charge</p>	<p><b>Estimated Project Cost:</b> USD 43.48 Million</p> <p><b>Financial Feasibility:</b>  IRR : 14.39 %  NPV : USD 19.29 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>



## Project Digest

<b>Project Title</b>	Integrated Hazardous and Specific Waste Management Facility in Sumapapua
<b>Government Contracting Agency</b>	Minister of Environment and Forestry
<b>Implementing Agency</b>	Direktorate General of Waste and Hazardous Management
<b>Preparation Agency</b>	Direktorate General of Waste and Hazardous Management
<b>Project Cost</b>	USD 43.48 Million
<b>Estimated Concession Period</b>	15 Years
<b>Location</b>	Pangkajene & Islands (Pangkep) Regency or Maros Regency, South Sulawesi

### 1. The Opportunity

#### 1.1. Project Background

The types of industrial waste that often cause environmental problems and are difficult to treat are those that fall into the category of hazardous and toxic materials (Bahan Berbahaya dan Beracun / "B3"). To process this type of waste, in addition to requiring high technology, it also requires rather expensive investment and operational costs. B3 waste, when it is discharged directly into the environment, has the potential to cause adverse impacts and is accumulative in nature.

The amount of B3 waste that can be managed is still inadequate compared to the production of B3 waste for each year, so that hazardous waste management services are still needed. Integrated B3 waste management facilities currently exist only in Java with a capacity of 250,000 - 300,000 tonnes per year. Another large utilization facility is in West Java and has a utilization capacity of 300,000 tonnes per year. Some types of B3 waste that cannot be managed by third parties in specific regional locations outside Java must be sent to Java which causes the cost of B3 waste management to be expensive.

B3 waste management that is adequate and efficient may be done collectively, namely by building a B3 Waste Management Center. B3 waste generated from industry is first separated from other non-B3 waste, then sent to the Hazardous Waste Management Center. At this facility, the waste is treated, recyclable materials are reused and those that cannot be recycled are processed through various treatment methods. B3 Waste Management Center needs to be built on a location that meets specific technical requirements so that the risk of pollution impacts that may be caused by this activity can be minimized. Considering the substantial risks posed by B3 Waste, the government is trying to manage B3 Waste in a comprehensive, integrated, and sustainable manner. Therefore, the Integrated Hazardous and Specific Waste Management Facility in Sumapapua Area is developed.

#### 1.2. Project Description

The development of an Integrated Hazardous and Specific Waste Management Facility in Sumapapua Region with PPP scheme is to manage of hazardous and specific waste, including storage, collecting, transporting, processing, utilization, and stockpiling, as elaborated on the Project Technical Specification. The Business Entity will receive a return of investment in the

form of user charge, that is a payment from the users during the 15 years of cooperation period. The Project scheme implemented will be build-operate-transfer.

### 1.3. Project Objectives

This project objectives are as follow:

1. To prevent and cope with the environmental pollution/damage caused by the hazardous waste and the recovery of the environmental quality that has been polluted, so it is suitable with its origin function;
2. A comprehensive, integrated and sustainable management of hazardous waste; and
3. Accelerating the procurement of the Hazardous Waste Management and Specific Waste on a large scale.

## 2. Business Entity's Scope of Work

Business entity shall be responsible for the management of hazardous and specific waste, including storage, collecting, transporting, processing, utilization, and stockpiling, as elaborated on the Project Technical Specification during concession period. The Project scheme implemented will be build-operate-transfer.

However, considering the land availability, potential location of users, and existing transportation business, it is necessary to reassert the following in carrying out the finalization of the scope of services:

1. Transportation activities are only from the Transfer Station.
2. The possibility of carrying out the transportation activities in accordance with the licenses issued by the Regional Government.
3. The possibility of land being provided by the Regional Government for the use of Transfer Station in each service area, so the services provided by Business Entity in the Project did not include the provision of the Transfer Station.
4. The possibility of the inclusion of a specific waste (e-waste) into one of hazardous waste to be managed.

## 3. Technical Specification

The technical specifications for this project are as follows:

No	Item	Specification
1	Storage	The activity of temporarily storing the hazardous waste carried out by the hazardous waste producers
2	Collecting	Collecting hazardous waste from the hazardous waste producers before it is submitted to the hazardous waste users, processors, and/or hoarders

No	Item	Specification
3	Transporting	Transporting hazardous waste from the waste collector or producer to the processing facility
4	Processing	Process to reduce and/or eliminate the hazardous and/or toxic nature of the waste
5	Utilization	Reuse, recycling and/or recovery activities aimed to turn the hazardous waste into a substitute product to a safe material for human health and the environment
6	Stockpiling	Placing the hazardous waste on the landfill facility so it doesn't endanger human health and the environment.

#### 4. Environmental Impact Assessment (EIA/AMDAL) Findings

The Project falls under the 'Hazardous Waste management service industry which conducts a combination of 2 (two) or more activities including utilization, processing and/or landfilling of the Hazardous Waste' category, which required an AMDAL. The AMDAL needed is a Category A AMDAL (if the stockpiling is included).

#### 5. Land Acquisition and Resettlement Action Plan

No land acquisition is needed. The Project will be conducted on a Local Government Owned Property.

#### 6. Project Cost Structure

Estimated Project Cost		USD 43.48 Million	
<b>Indicative Debt to Equity Ratio</b>			
- Debt Level	Under Calculation		
- Equity Level			
<b>IRR</b>		14.39%	
<b>NPV</b>		USD 19.29 Million	

#### 7. Government Support and Guarantee

- Government Support: The Project does not apply for any Government Support.
- Government Guarantee: The Project is guaranteed by IIGF.
- Preparation and Transaction Facility: The Project is applying for a Project Development Fund (PDF) to the Ministry of Finance.

## **8. Contact Information**

Name : Rohimah

Position : Head of Program and Budget Sub-Section

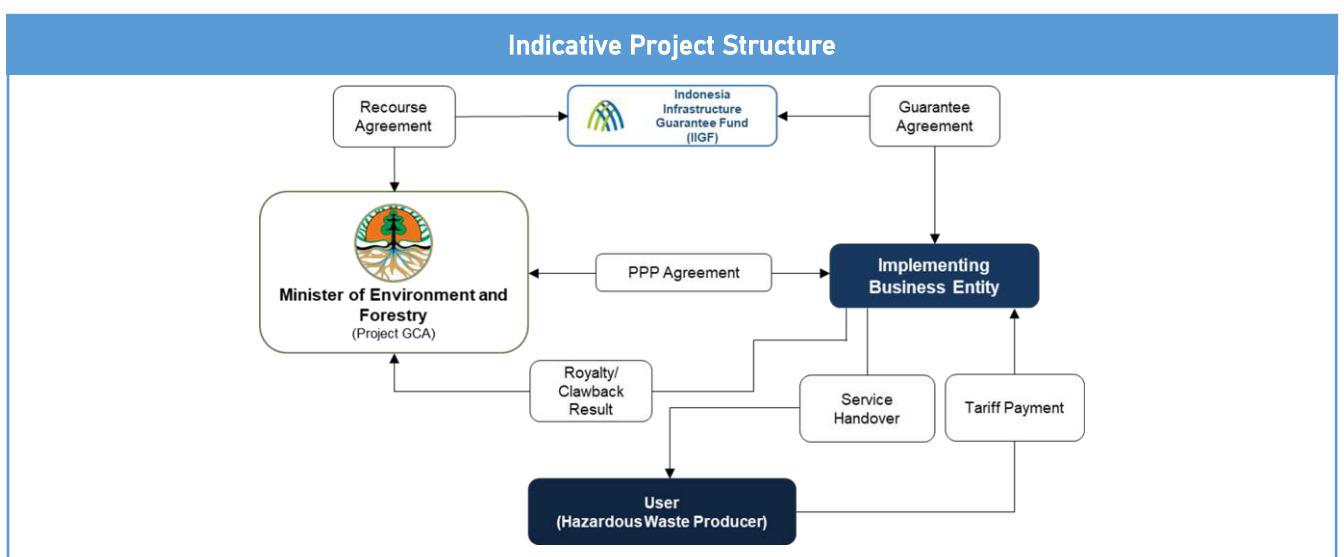
Phone : +621 570902751 (Program and Evaluation Section)

Email : progrev.pslb3@gmail.com

## INTEGRATED HAZARDOUS AND SPECIFIC WASTE MANAGEMENT FACILITY IN SUMATERA

Location : North Sumatera Province

Sector : Waste Management	Sub-Sector : Hazardous Waste Management
	<p><b>Description:</b> This project is to develop the Integrated Hazardous and Specific Waste Management Facility in Sumatra Area with PPP scheme. The Project scheme implemented will be build-operate-transfer.</p> <p><b>Estimated Project Cost:</b> USD 67.89 Million</p> <p><b>Financial Feasibility:</b> IRR : 14.27 % NPV : USD 24.12 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>
<p><b>Government Contracting Agency:</b> Minister of Environment and Forestry</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> User Charge</p>	



## Project Digest

<b>Project Title</b>	Integrated Hazardous and Specific Waste Management Facility in Sumatera
<b>Government Contracting Agency</b>	Minister of Environment and Forestry
<b>Implementing Agency</b>	Direktorate General of Waste and Hazardous Management
<b>Preparation Agency</b>	Direktorate General of Waste and Hazardous Management
<b>Project Cost</b>	USD 67.89 Million
<b>Estimated Concession Period</b>	15 Years
<b>Location</b>	Batu Bara Regency or Simalungun Regency, North Sumatera

### 1. The Opportunity

#### 1.1. Project Background

The types of industrial waste that often cause environmental problems and are difficult to treat are those that fall into the category of hazardous and toxic materials (Bahan Berbahaya dan Beracun / "B3"). To process this type of waste, in addition to requiring high technology, it also requires rather expensive investment and operational costs. Many industries have not been able to do their waste treatment because of these constraints, and it is feared that some industries dispose of their waste carelessly. B3 waste, when it is discharged directly into the environment, has the potential to cause adverse impacts and is accumulative in nature so that the levels become increasingly significant.

B3 waste management that is adequate and efficient may be done collectively, namely by building a B3 Waste Management Center. B3 waste generated from industry is first separated from other non-B3 waste, then sent to the Hazardous Waste Management Center. At this facility, the waste is treated, recyclable materials are reused and those that cannot be recycled are processed through various treatment methods. B3 Waste Management Center needs to be built on a location that meets specific technical requirements so that the risk of pollution impacts that may be caused by this activity can be minimized. Considering the substantial risks posed by B3 Waste, the government is trying to manage B3 Waste in a comprehensive, integrated, and sustainable manner. Therefore, the Integrated Hazardous and Specific Waste Management Facility in Sumatera Area is developed.

#### 1.2. Project Description

The development of the Integrated Hazardous and Specific Waste Management Facility in Sumatera Area with PPP scheme is to manage of hazardous and specific waste, including storage, collecting, transporting, processing, utilization, and stockpiling, as elaborated on the Project Technical Specification. The Business Entity will receive a return of investment in the form of user charge, that is a payment from the users during the 15 years of cooperation period. The Project scheme implemented will be build-operate-transfer.

#### 1.3. Project Objectives

This project objectives are as follow:

1. To prevent and cope with the environmental pollution/damage caused by the hazardous waste and the recovery of the environmental quality that has been polluted, so it is suitable with its origin function;
2. A comprehensive, integrated and sustainable management of hazardous waste;
3. Accelerating the procurement of the Hazardous Waste Management and Specific Waste on a large scale

## **2. Business Entity's Scope of Work**

Business entity shall be responsible for the management of hazardous and specific waste, including storage, collecting, transporting, processing, utilization, and stockpiling, as elaborated on the Project Technical Specification during concession period. The Project scheme implemented will be build-operate-transfer.

However, considering the land availability, potential location of users, and existing transportation business, it is necessary to reassert the following in carrying out the finalization of the scope of services:

1. Transportation activities are only from the Transfer Station.
2. The possibility of carrying out the transportation activities in accordance with the licenses issued by the Regional Government.
3. The possibility of land being provided by the Regional Government for the use of Transfer Station in each service area, so the services provided by Business Entity in the Project did not include the provision of the Transfer Station.
4. The possibility of the inclusion of a specific waste (e-waste) into one of hazardous waste to be managed.

## **3. Technical Specification**

The technical specifications for this project are as follows:

No	Item	Specification
1	Storage	The activity of temporarily storing the hazardous waste carried out by the hazardous waste producers
2	Collecting	Collecting hazardous waste from the hazardous waste producers before it is submitted to the hazardous waste users, processors, and/or hoarders
3	Transporting	Transporting hazardous waste from the waste collector or producer to the processing facility
4	Processing	Process to reduce and/or eliminate the hazardous and/or toxic nature of the waste
5	Utilization	Reuse, recycling and/or recovery activities aimed to turn the hazardous waste into a

No	Item	Specification
		substitute product to a safe material for human health and the environment
6	Stockpiling	Placing the hazardous waste on the landfill facility so it doesn't endanger human health and the environment.

#### 4. Environmental Impact Assessment (EIA/AMDAL) Findings

The Project falls under the 'Hazardous Waste management service industry which conducts a combination of 2 (two) or more activities including utilization, processing and/or landfilling of the Hazardous Waste' category, which required an AMDAL. The AMDAL needed is a Category A AMDAL (if the stockpiling is included).

#### 5. Land Acquisition and Resettlement Action Plan

No land acquisition is needed. The Project will be conducted on a Local Government Property.

#### 6. Project Cost Structure

Estimated Project Cost	USD 67.89 Million
Indicative Debt to Equity Ratio	
- Debt Level	Under Calculation
- Equity Level	Under Calculation
IRR	14.27 %
NPV	USD 24.12 Million

#### 7. Government Support and Guarantee

- Government Support: The Project does not apply for any Government Support.
- Government Guarantee: The Project is guaranteed by IIGF
- Preparation and Transaction Facility: The Project is applying for a Project Development Fund (PDF) to the Ministry of Finance.

#### 8. Contact Information

Name : Rohimah

Position : Head of Program and Budget Sub-Section

Phone : +621 570902751 (Program and Evaluation Section)

Email : progrev.pslb3@gmail.com

# UNDER PREPARATION PROJECTS



Telecommunication and  
Informatics:

1. Development of Modern Land Registry Information System

## DEVELOPMENT OF MODERN LAND REGISTRY INFORMATION SYSTEM

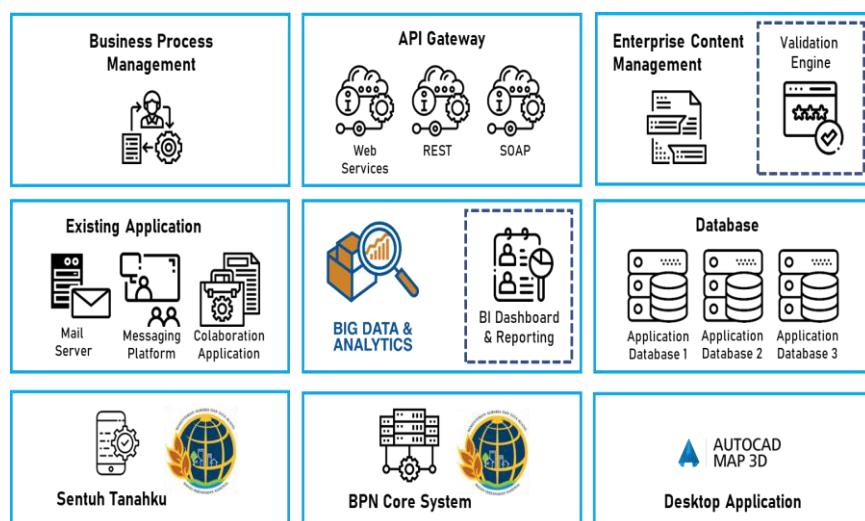
Location : National

Sector : Telecommunication and Informatics	Sub-Sector : E-Government
	<p><b>Description:</b>  The objective of the project is to improve public service in land affairs through development of Modern Land Information System. Modern Land Information System development in land affairs focus on transformation from conventional to electronic service (website and mobile apps), through implementing advance technologies to support Accelerated Systemic Land Registration (PTSL) project target and 100 percent land certificates in Indonesia by 2025.</p>
<p><b>Government Contracting Agency:</b>  Minister of Agrarian Affairs and Spatial Planning/ Head of National Land Agency</p> <p><b>Type of PPP:</b>  Solicited</p> <p><b>Return of Investment:</b>  Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 743.05 Million</p> <p><b>Financial Feasibility:</b>  IRR : 16.80%  NPV : USD 187.50 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>
<p><b>Indicative Project Schedule</b></p>	
<p><b>Project Status : Outline Business Case</b></p>	
<p><b>Indicative Project Structure</b></p>	

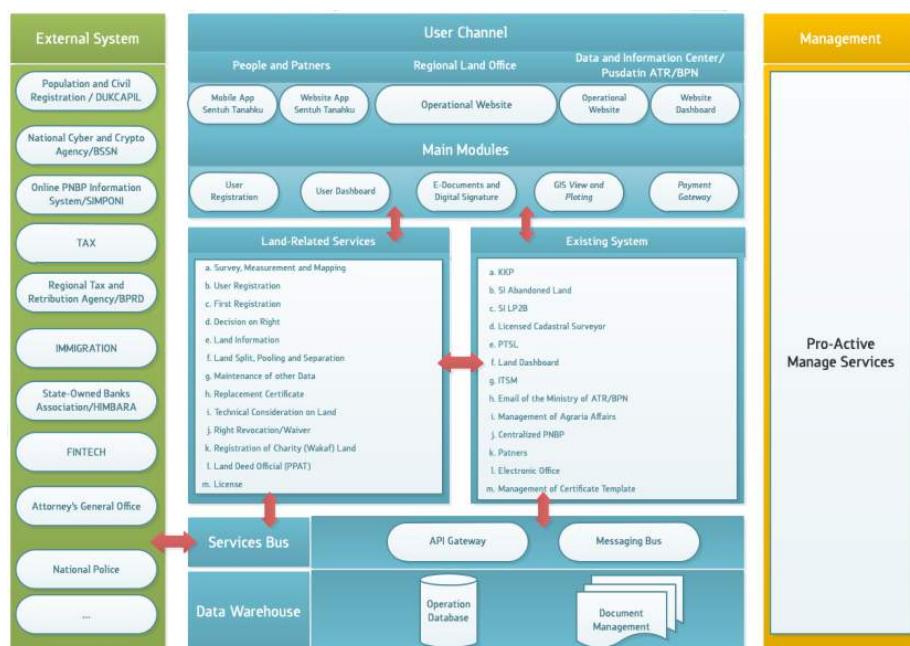
## Project Digest

Project Title		Development of Modern Land Registry Information System
<b>Government Contracting Agency</b>	The Minister of Agrarian Affairs and Spatial Planning / Head of National Land Agency	
<b>Implementing Agency</b>	Data and information center of the ministry of ATR/BPN	
<b>Preparation Agency</b>	National Development Planning Agency	
<b>Project Cost</b>	743.05 Million USD	
<b>Estimated Concession Period</b>	15 Years	
<b>Location</b>	National	

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Infrastructure Capacity Development of Modern Based on SPBE Standard



Picture 2 – Architecture of Modern LIS

## **2. The Opportunity**

### **2.1. Project Background**

The Ministry of Agrarian Affairs and Spatial Planning / National Land Agency (ATR/BPN) plans to develop Modern Land Information System (LIS) to improve public service in land affairs. The land service transformation from conventional to electronic service through smart device of both website and mobile applications as well as current technological infrastructure support its expected to be assist the national priority program in accelerate land services to the public, improve the EODB rating and increasing state revenue. The development of modern land information system will be carried out under the public private partnership scheme.

### **2.2. Project Description**

Information system for land management services that integrates Ministries and Institutions related to land management and can be accessed by ATR / BPN partners and the community through smart devices both websites and mobile apps. There are 118 land service activities that are divided into 15 categories of land service management. Integration of Modern Land Information Systems with ministry systems and other institutions. Easy access to land information for the community and ATR / BPN partners through mobile devices. Integrated Internal Application System at the Ministry of ATR / BPN with Command Center monitoring media. And with the Latest Information Technology and Computer Infrastructure (ICT) support.

### **2.3. Project Objectives**

The project aims to transformation of land services through the development of modern land information systems.

## **3. Business Entity's Scope of Work**

Private partners shall be responsible to develop land information system, DC and DRC infrastructure improvement and maintenance, hardware procurement, helpdesk and support, digitalization and validation land document. Within this scope of responsibility, private investment will be returned in the form of an Availability Payment (AP) scheme for 15 years with 14 percent of Return on Investment (ROI).

Scope of works the business entity are as follows:

1. Develop the modern of land information system
2. DC/DRC infrastructure improvement and maintenance
3. Procurement of hardware
4. Prepare the help desk and support
5. Digitalization and validation of backlog documents and new documents
6. Monitoring, training, and socialization the modernized land information system
7. Maintenance the modernized land information system and existing applications
8. Integrate the modernized land information system with related government/agency systems and integrate with payment gateway
9. Maintenance of the infrastructure of DC/DRC and networks
10. Adjustment and topology of spatial data and validation of spatial data backlog

#### **4. Technical Specification**

Modern Land Information System project is expected to function as an integrated internal application in ministry system and other institutions. The project technical specification consists of:

##### **1. Developing Modern Land Information System Modern**

- Developing Modern LIS Core Module
- Developing Modern LIS Services Module
- Geospatial Software License
- CAD Software License

##### **2. Maintain Modern Land Information System Modern**

- Maintaining Modern LIS Application
- Maintaining Existing ATR/BPN Application

##### **3. Help Desk and Support**

- Developing Helpdesk Application
- Training and Socialization Activities
- Helpdesk Operation
- Helpdesk System Leasing
- Office Activities Monitoring

##### **4. Command Center**

- Developing and Building Command Center
- Command Center Operation

##### **5. Digitizing and Validation Documents and Spatial Data**

- Developing Application for Document Validation and Spatial Data
- Adjustment and Topology Spatial Data (KW 1 - KW 2 - KW 3)
- Backlog Validation Spatial Data (KW 4 - KW 5 - KW 6)
- Backlog Documents Activities
- New Documents Activities

##### **6. Improved DC/RD Infrastructure**

- Deploy Container/Microservice Platform
- Deploy Document Management System
- Deploy SDWAN for DC/DRC and Office Land
- Deploy Active-Active Data Center
- Deploy Firewall and Security System
- Improved Land Office Infrastructure Capacity
- Improve DC/DRC Devices
- Maintain DC/DRC Infrastructure and Devices

##### **7. Maintain DC/RD Infrastructure**

##### **8. Maintenance of Modern Land Information Systems**

- Website and Mobile App Maintenance (Sentuh Tanahku)
- Maintenance of Existing Applications

##### **9. Development of Additional Modules for Modern Land Information Systems**

## **10. Hardware Procurement**

- Hardware Procurement Helpdesk
- Command Center Equipment Procurement
- Strengthening of DC / DRC ICT Infrastructure
- Procurement of Document Digitizing Devices

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Not Needed.

## **6. Land Acquisition and Resettlement Action Plan**

Not Needed.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 743.05 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- Debt Level		70%
- Equity Level		30%
IRR		16.80%
NPV		USD 187.50 Million

## **8. Government Support and Guarantee**

The indicative government support for modern LIS Development Project are written below:

- Licence and Permit support: need for adjustment of Government Regulations regarding types and tariffs for types of Non-Tax Revenues applicable to the Ministry of ATR / BPN
- The need to prepare a Memorandum of Understanding (MoU) with other ministries and state institutions related to the cooperation in data and information sharing.
- Support for the provision of internet bandwidth network

To mitigate the project's risks from changes in demand risk and shifts in political scenario, government guarantee required. In this regard, the level of risk perceived from investors will be determined at market sounding.

## **9. Contact Information**

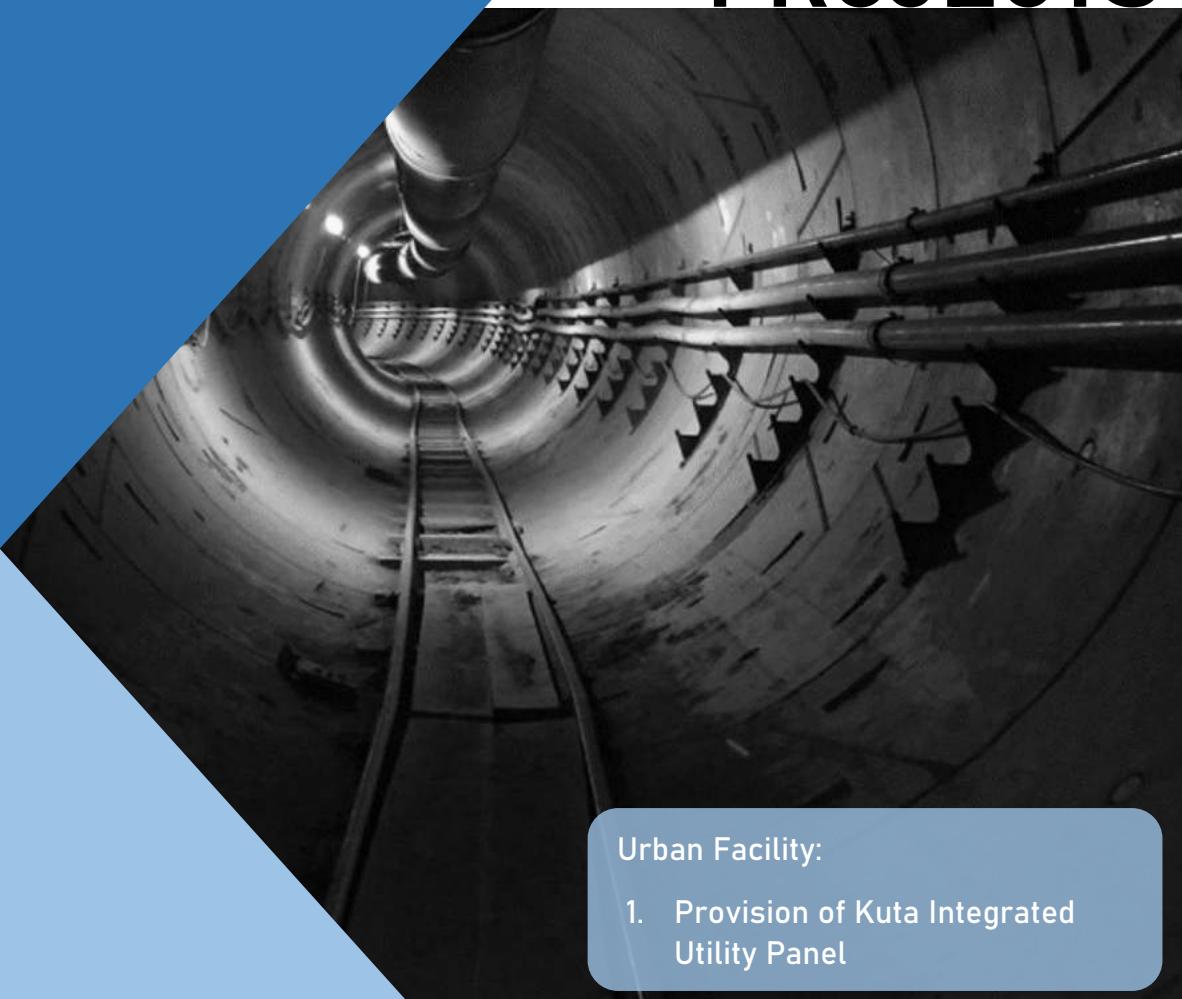
Name : Virgo Eresta Jaya

Position : Head of Center for Data and Information on Land

Phone : +62 21-7222951 / +62 858 1478 8839 / Fax. +62 21-7222951

Email : ppid@bpn.go.id

# **UNDER PREPARATION PROJECTS**



**Urban Facility:**

- 1. Provision of Kuta Integrated Utility Panel**

## PROVISION OF KUTA INTEGRATED UTILITY PANEL

Location : Badung, Bali Province

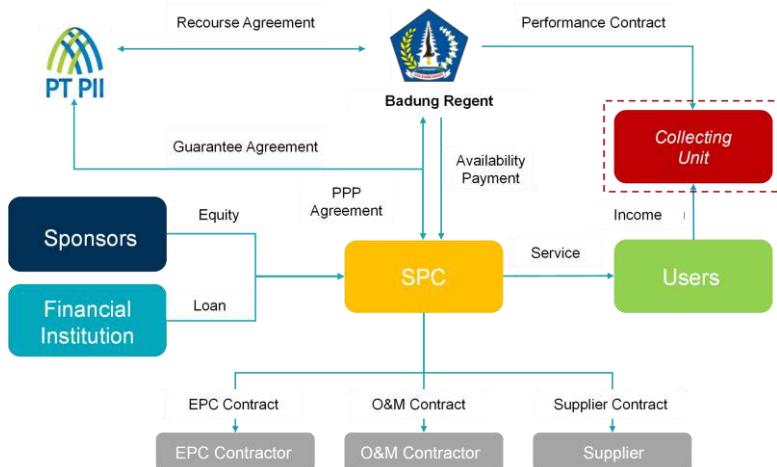
Sector : Urban Infrastructure	Sub-Sector : Utility Pipeline/Ducting
	<p><b>Description:</b>  Badung Regency have decided to construct underground utility ducting that integrates several utility line in Kuta District and its surrounding. The ducting will be in form of Pre-Cast Concrete Box Culvert and Pipe Conduit. The total length of the ducting will be 19,471 m of Box Culvert and 36,656 m of Pipe Conduit.</p> <p><b>Estimated Project Cost:</b> USD 80.50 Million</p> <p><b>Financial Feasibility:</b>  IRR : 11.32%  NPV : USD 2.26 Million</p> <p><b>Estimated Concession Period:</b> 25 years</p>
<p><b>Government Contracting Agency:</b>  Regent of Badung</p> <p><b>Type of PPP:</b>  Solicited</p> <p><b>Return of Investment:</b>  Availability Payment</p>	

### Indicative Project Schedule



Project Status : Outline Business Case

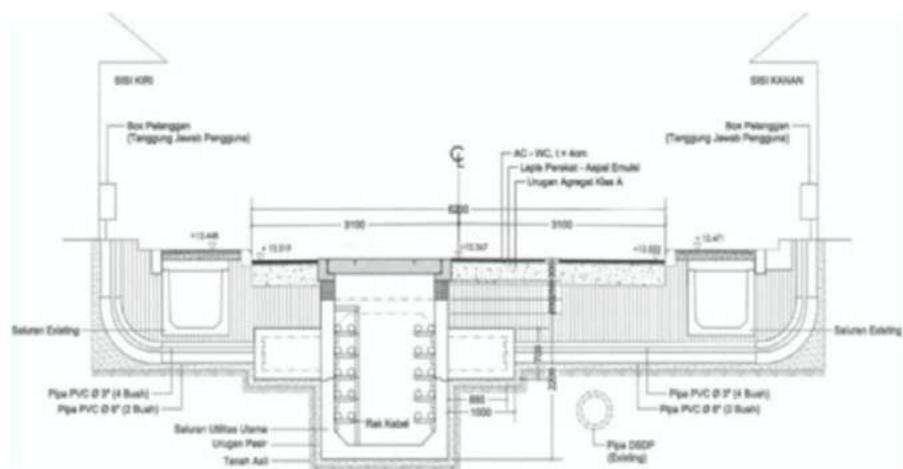
### Indicative Project Structure



## Project Digest

Project Title	Provision of Kuta Integrated Utility Panel
<b>Government Contracting Agency</b>	Regent of Badung
<b>Implementing Agency</b>	General Works and Spatial Planning Agency, Badung Regency
<b>Preparation Agency</b>	General Works and Spatial Planning Agency, Badung Regency
<b>Project Cost</b>	USD 80.50 Million
<b>Estimated Concession Period</b>	25 years
<b>Location</b>	Badung, Bali Province

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Kuta Integrated Utility Panel

### 2. The Opportunity

#### 2.1. Project Background

The need for improved utility facilities in Badung Regency is not accompanied by investment in long term solutions. At present the installation of the urban utility network is not well coordinated and often conflicting between one utility line and another. This reduces the comfort of the community, tourists and overall beauty of the city. Thus, Badung Regency must be able to provide integrated utility network which is serviceable, efficient and reachable by the public. This also becomes one indicator of a modern city on international standard. Therefore, Kuta Integrated Utility Panel Development is the solution in dealing with the problem of utility networks in Badung regency.

#### 2.2. Project Description

The construction of Kuta Integrated Utility Panel is the development of underground utility network intended especially for high density urban areas and tourism hotspot. As the utility network is in underground, it needs to use a ducting system. Underground ducting is a way to place any number of public utility lines such as electricity, water, telecommunications, gas,

etc. Before constructing the underground ducting, it is necessary to review the following aspects:

1. Aesthetics
2. Maintenance
3. Development
4. Convenience
5. Lifespan / lifetime

The ducting model for underground utility line can take several forms such as:

1. Sleeve (conduit),
2. Round shape and box shape.

It must be adapted according to several aspects such as: space requirements, construction method, maintenance and ease of obtaining material. For Kuta Integrated Utility Panel, it is decided that there will be several sections, primarily in Kuta District, that use Pre-Cast Concrete Box and other section in North Kuta and South Kuta District that use Sleeves or conduit.

### 2.3. Project Objectives

With the construction of Kuta Integrated Utility Panel it is expected to:

1. Reducing disruption of traffic / community activities due to excavation or installation / maintenance of utilities
2. Increase the city's aesthetics because there are no more unpleasant aerial cables
3. Simplify the maintenance and operation of utility networks
4. Supporting services in the tourism sector.

## 3. Business Entity's Scope of Work

D-B-F-M-T (Design – Build – Finance – Maintenance – Transfer) with availability payment method.

## 4. Technical Specification

The technical specifications for Kuta Integrated Utility Panel are as follow:

No	Location	Total
Length of Ducting		
1	Kuta District (Pre-Cast Concrete)	19,471 m
2	North Kuta District (Conduit)	18,897 m
3	South Kuta District (Conduit)	20,354 m
Number of Pole		
1	Kuta District	50,352 unit
2	North Kuta District	85,187 unit
3	South Kuta District	102,573 unit

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Kuta Integrated Utility Panel will dig underground tunnel that is then used to place the utility network in the form cables and pipes such as electrical cables, telecommunications cables, information, water, oil, gas or other fuels, sanitation, etc. It is planned to be built as long as 19,471 m which means that the project would need to have AMDAL to proceed as stated in Environment Ministry Regulation No. 38/2019. The AMDAL would be completed later in Preparation Stage.

## **6. Land Acquisition and Resettlement Action Plan**

There will be no land acquisition as all works will be done in public land.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 80.50 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
-	<b>Debt Level</b>	70%
-	<b>Equity Level</b>	30%
<b>IRR</b>		11.32%
<b>NPV</b>		USD 2.26 Million

## **8. Government Support and Guarantee**

Government support and guarantee will be determined during finalization of Final Business Case.

## **9. Contact Information**

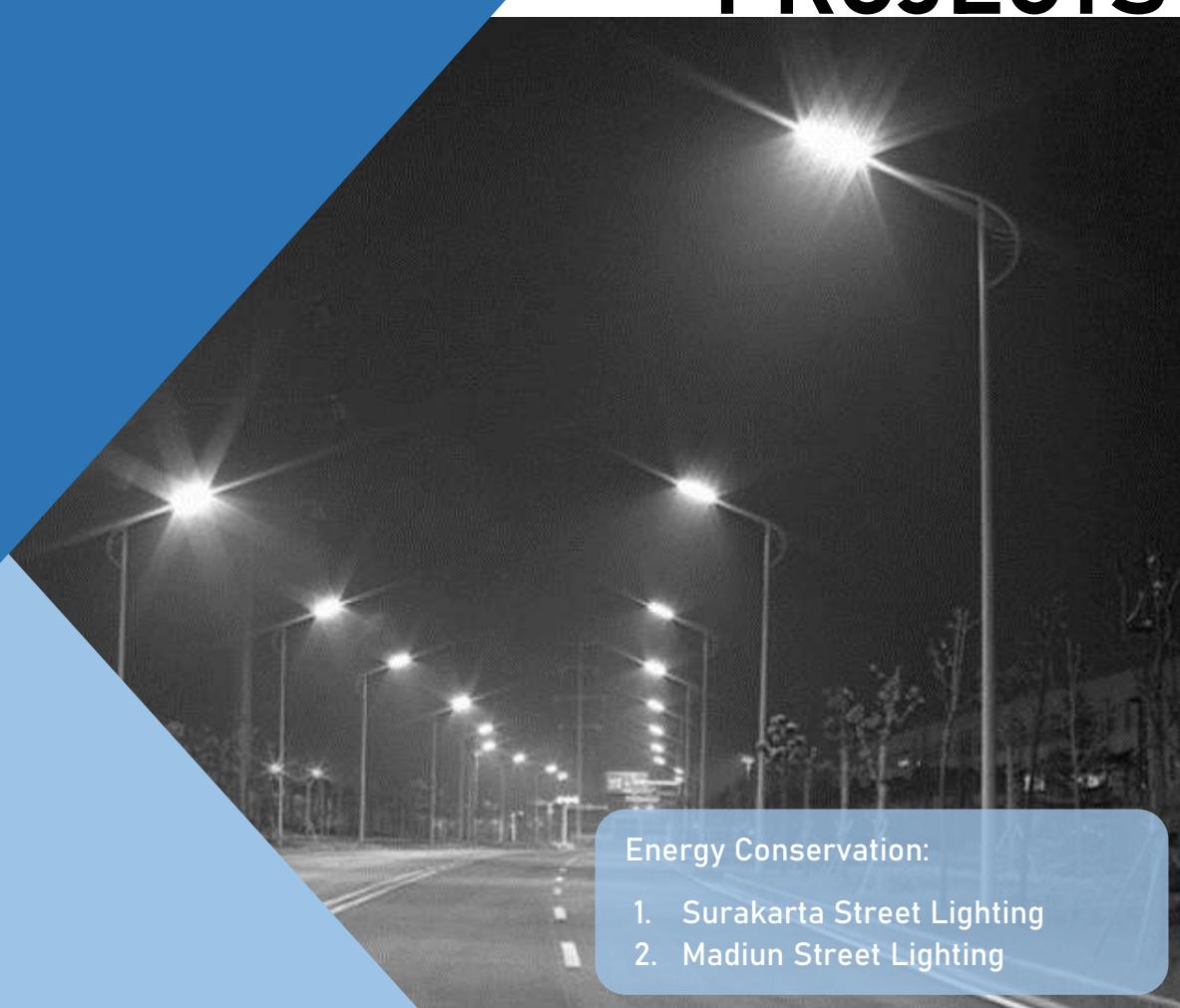
Name : Ida Bagus Surya Suamba

Position : Head of Regional Public Works and Spatial Planning, Badung Regency

Phone : +62361 9009401

Email : diskominfo@badungkab.go.id

# **UNDER PREPARATION PROJECTS**

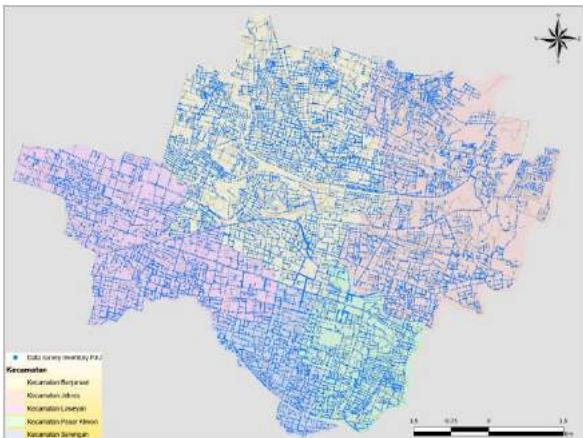
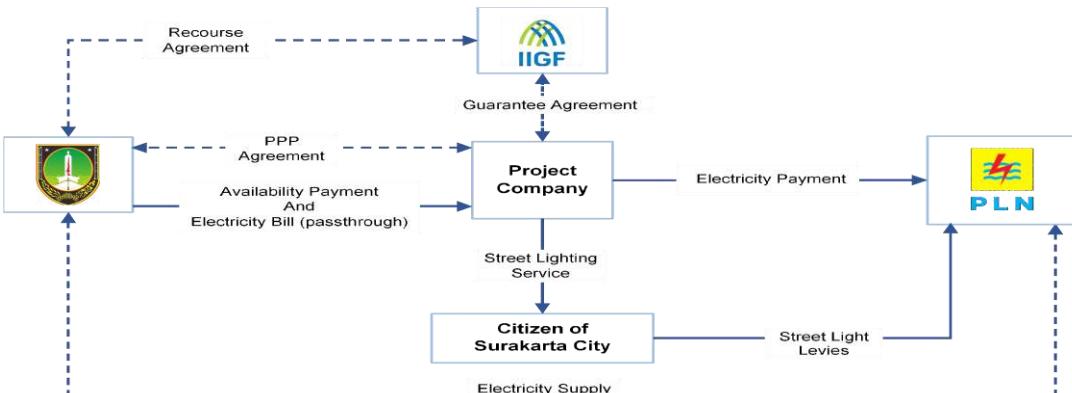


**Energy Conservation:**

1. Surakarta Street Lighting
2. Madiun Street Lighting

## SURAKARTA STREET LIGHTING

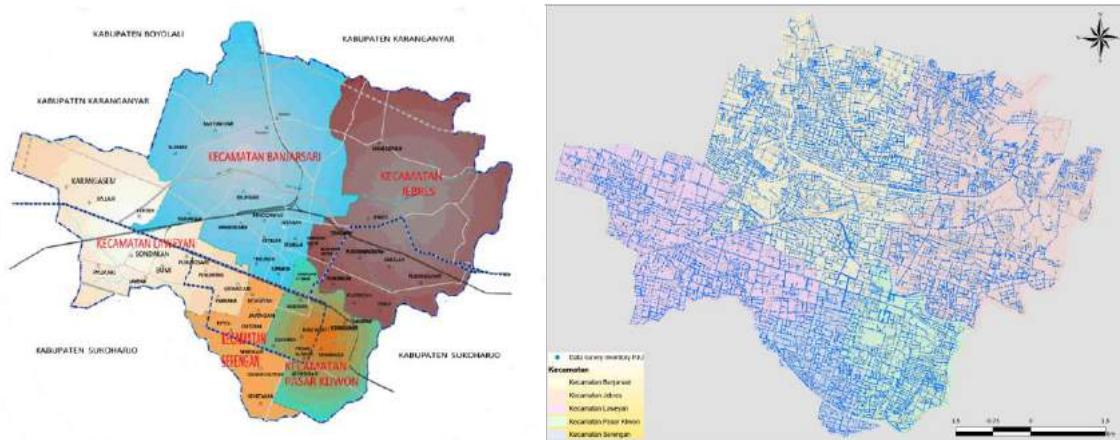
Location : Surakarta, Central Java Province

Sector : Energy Conservation	Sub-Sector : Street Lighting		
	<p><b>Description:</b> The Municipal Government of Surakarta is proposing to revitalize the PSL public services within the city, covering 976 km city road network. The project will be implemented in PPP Scheme. The scheme will include PPP agreement between the Municipal and the Business Entity along the specified concession period that requires the Business Entity to finance, design, develop, operate, and maintain the PSL service.</p>		
<p><b>Government Contracting Agency:</b> Mayor of Surakarta</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 25.57 Million</p> <p><b>Financial Feasibility:</b></p> <table><tr><td>IRR : 11 %</td></tr><tr><td>NPV : Under Calculation</td></tr></table> <p><b>Estimated Concession Period:</b> 17 years including 2 years construction period</p>	IRR : 11 %	NPV : Under Calculation
IRR : 11 %			
NPV : Under Calculation			
Indicative Project Schedule			
			
Project Status : Final Business Case			
Indicative Project Structure			
			

## Project Digest

Project Title	Surakarta Street Lighting
Government Contracting Agency	Mayor of Surakarta
Implementing Unit	Municipal Government of Surakarta
Preparation Agency	PT. SMI through PDF from Ministry of Finance
Project Cost	USD 25.57 Million
Estimated Concession Period	17 years (2 years construction)
Location	Surakarta, Central Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of Surakarta Street Light Network

### 2. The Opportunity

#### 2.1. Project Background

One main focus of the Municipal Government of Surakarta in the local development plan (RPJMD 2016–2021) is public services transformation, including Public Street Lighting (PSL). The municipal is transforming the perspective of PSL from merely the provision of local owned asset to public services. The improved PSL services within the City of Surakarta will provide illumination on the streets of Surakarta City to enhance night-time visibility and to enhance road traffic safety as well as security.

The recent feasibility study prepared by the municipal describes that the PSL as a public service is not functioning optimally. The PSL services is performing inefficient electricity usage and unstandardized poles and luminaires. In addition, the illumination has not been distributed evenly along the existing public streets.

#### 2.2. Project Description

The Government of Surakarta is proposing to revitalise the PSL public services within the city, covering 976 km city road network. The project will be implemented in PPP scheme in accordance to Presidential Decree Number 38 Year 2015. The scheme will include PPP

agreement between the Municipal and the Business Entity along the specified concession period that requires the Business Entity to finance, design, develop, operate, and maintain the PSL service. The service has to comply with the national PSL standard, determined in the Ministry of Transportation Regulation Number 27 Year 2018.

The revenue of the PPP Project Company (a company set up by the Winning Bidder) will be in the form of Availability Payment (AP). The AP will be given to the PPP Project Company by the Municipal Government based on the services conducted by the company and the compliance to the service level standard specified on the PPP Agreement.

### 2.3. Project Objectives

- Improved energy-efficient public street lighting service, complying to the national standard;
- Improved night-time visibility, resulting in enhanced road traffic safety and decreased criminal activity for citizen;
- Reduction in cost (local budget) due to reduced electricity consumption resulting from energy-efficient street lighting system;
- Increase the city's productivity growth;

## 3. Business Entity's Scope of Work

The interested business entities should bring their knowledge and expertise on the street lighting services to provide the most competitive offers. The Municipal Government has conducted studies related to the total street length, estimated capital expenditure, operating and maintenance expenses, regulation compliances, value for money and the attractiveness of availability payment mechanism. According to the survey result performed in early 2019, the total light points identified were more than 20,000 units. Whereas, the current feasibility study shows that ideally the city needs around 64,000 units. However, for the scope of the project, the Municipal Government plans to provide 22,000 units of street lighting points.

## 4. Technical Specification

- Installing the electricity measuring device (kWh meter);
- Performing an energy efficiency street lighting services by using LED technology, complying to the national standard;
- Constructing the light points/poles (discussed and approved by the GCA);
- Applying the Street Lighting Central Management System.

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

In accordance with the national environmental safe-guards regulation, The PPP Surakarta Public Street Project requires to prepare UKL-UPL as a safeguard document. The implementing unit has completed the development process of the project's document,

including a public consultation (community representatives and relevant local agencies) and series of technical meeting. On June 2019, the environmental permit for the project has been issued.

## **6. Land Acquisition and Resettlement Action Plan**

The project scope includes the development of PSL system on the government-owned roads which has available space for PSL infrastructure. Therefore, there is no land acquisition for this project.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 25.57 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		70%
- <b>Equity Level</b>		30%
<b>FIRR</b>		11 %
<b>NPV</b>		Under Calculation

## **8. Government Support and Guarantee**

The Municipal Government of Surakarta is considering to propose the government guarantee facility for the Project. The Guarantee will benefit the business entities by increasing the credit worthiness of the project.

## **9. Contact Information**

Name : Ir. Ahyani

Position : Regional Secretary

Phone : +62-271-662-266

Email : setda@surakarta.go.id; kpbupju.solo@gmail.com

Name : Endah Sitaresmi Suryandari

Position : Head of Public Works and Spatial Planning Surakarta City

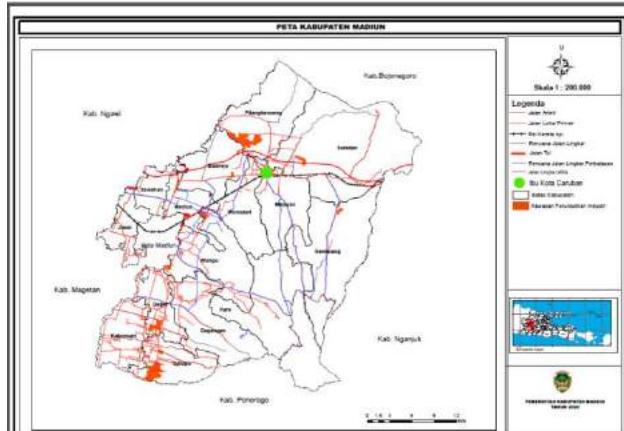
Phone : +62-271-643-050; +62-271-636-285

Email : kpbupju.solo@gmail.com; Surakarta\_dpu@yahoo.com

## MADIUN STREET LIGHTING

Location : Madiun, East Java Province

### Sector : Energy Conservation



### Sub-Sector : Street Lighting

#### Description:

Madiun Regency is one of the main investment destinations for prospective industries in West Java, which borders Central Java Province. Madiun Regency is directly well connected to the Trans-Java toll road network and is the main gateway for transportation from East Java to Central Java Province. This traffic needs to be supported by well-maintained street lighting to support economic activities and industrial estates, increase social mobility and improve road safety and security. To achieve this goal, Madiun District proposes a PPP Project for Madiun Street Lighting.

#### Government Contracting Agency:

Regent of Madiun

#### Type of PPP:

Solicited

#### Return of Investment:

Availability Payment

#### Estimated Project Cost: Under Calculation

#### Financial Feasibility:

IRR : Under Calculation

NPV : Under Calculation

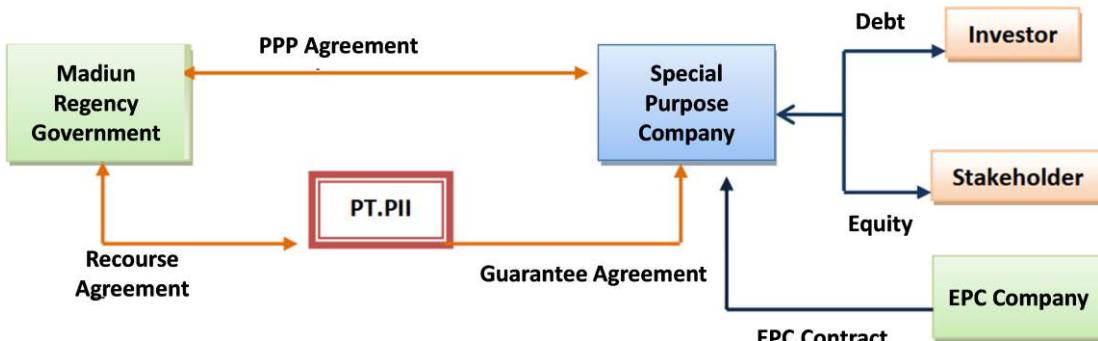
#### Estimated Concession Period: Under Review

### Indicative Project Schedule



#### Project Status: Preliminary Study

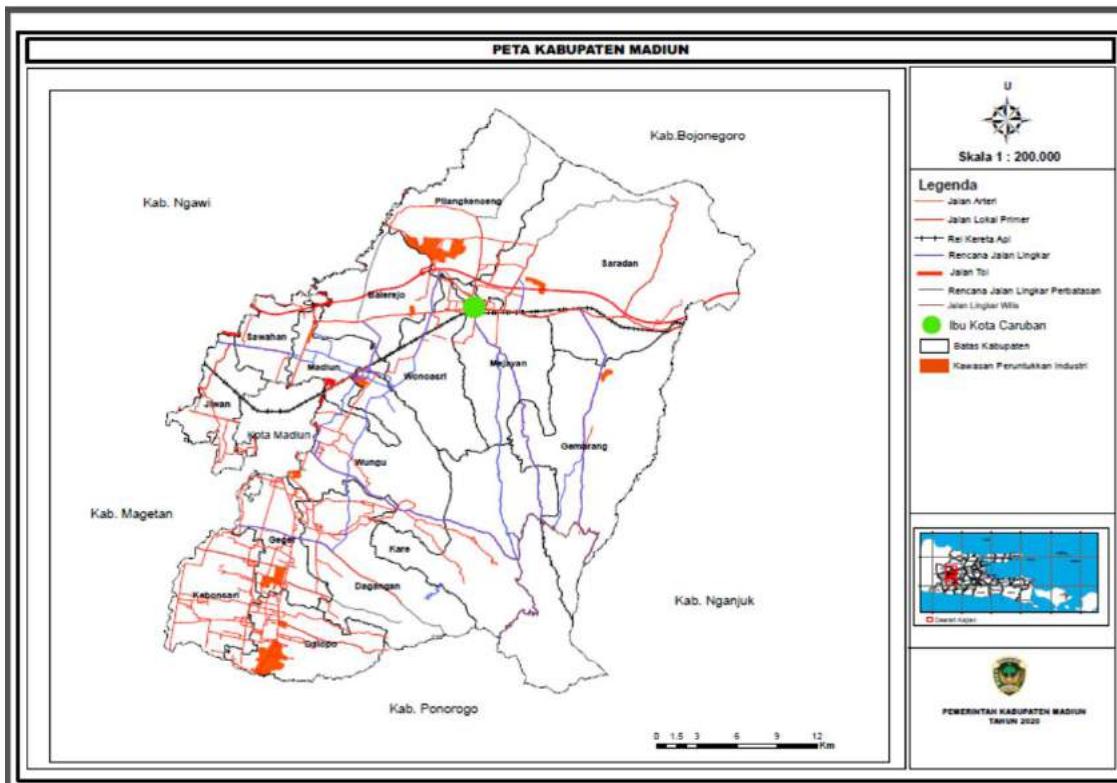
### Indicative Project Structure



## Project Digest

Project Title	Madiun Street Lighting
Government Contracting Agency	Regent of Madiun
Implementing Unit	Bappeda Madiun Regency
Preparation Agency	Under Review
Project Cost	Under Calculation
Estimated Concession Period	Under Review
Location	Madiun, East Java

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Map of Madiun Regency

### 2. The Opportunity

#### 2.1. Project Background

Madiun Regency, located in the western region of East Java Province, is a strategic area with a traffic lane connecting Central Java. Madiun Regency has 2 interchanges on the Trans Java Toll Road, namely Madiun Toll Gate located in Dumpil District, Sawahan Regency, and Caruban Toll Gate located in Pilangkenceng District. Because of this, Madiun Regency economy is well supported in terms of transportation facilities and infrastructure.

Since 2014, the central government of Madiun Regency moved from its original place in Madiun City to the Capital of Caruban, one of the new economic centers in Madiun Regency. Madiun Regency is one of the regions commonly referred to as the Mataraman region and included in the Wilis Selingkar Region as regulated in Presidential Regulation Number 90 Of 2019, which

in this case Madiun Regency has huge potential to be developed in investment. But this condition is caused by street lighting facilities because it is still very minimal and many are still using old technology which consequently has an impact on increasing the costs incurred for maintenance. Therefore, a new modern street lighting system is needed to support economic activities in Madiun. This project is very potential and received appreciation from the community and support from the National Electricity Company (PLN).

## 2.2. Project Description

The Madiun Regency Government is proposing to revitalize the street lights within the regency, covering 809.32 km of road consisting of national roads, regency roads, and rural streets. The project will be implemented in the PPP scheme under Presidential Decree Number 38 the Year 2015. The scheme will include PPP agreement between the regency government and the Business Entity that is responsible for designing, building, financing, maintaining, and transfer back the asset to the government after the concession period ends.

The revenue of the special purpose company (SPC) will be in the form of Availability Payment (AP). The AP will be given to the SPC by the Regency Government based on the services conducted by the company and the compliance to the service level standard specified on the PPP Agreement.

## 2.3. Project Objectives

This project will function to:

- Lower operational costs and maintenance of street lighting
- Supporting and growing economic, social activities in the region especially from the tourism and manufacturing industries
- Increase road safety and security at night
- Increase social mobility for the community

## 3. Business Entity's Scope of Work

Scope of work for the business entity is D – B – F – M – T (Design – Build – Finance – Maintenance – Transfer).

## 4. Technical Specification

7,859 streetlights will be installed in both national roads and regency roads, while 4,641 streetlights will be installed in rural streets across 206 villages. Detailed specification will be determined in OBC/FBC.

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Any environmental document requirement will be identified in the OBC/FBC.

## **6. Land Acquisition and Resettlement Action Plan**

The Madiun Regency Government will provide the land needed for the project which is spread over 15 sub-districts and 206 villages. The project will cover national roads, district roads and rural roads in Madiun Regency.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>Under Calculation</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under Calculation
- <b>Equity Level</b>	Under Calculation
<b>FIRR</b>	Under Calculation
<b>NPV</b>	Under Calculation

## **8. Government Support and Guarantee**

Local government will support this project on land acquisition and permit processing. While the central government will support by means of project facilitation and capacity building during the preparation stage. Other government support and guarantee will be identified in the OBC/FBC.

## **9. Contact Information**

Name : Kurnia Aminulloh

Position : Head of Regional Development Planning Agency Madiun Regency

Phone : 0351-451145

Email : kabmadiunppp@gmail.com

# **UNDER PREPARATION PROJECTS**



## **Zoning:**

1. Teluk Bintuni Industrial Zone
2. Development of Jogja Agro Park

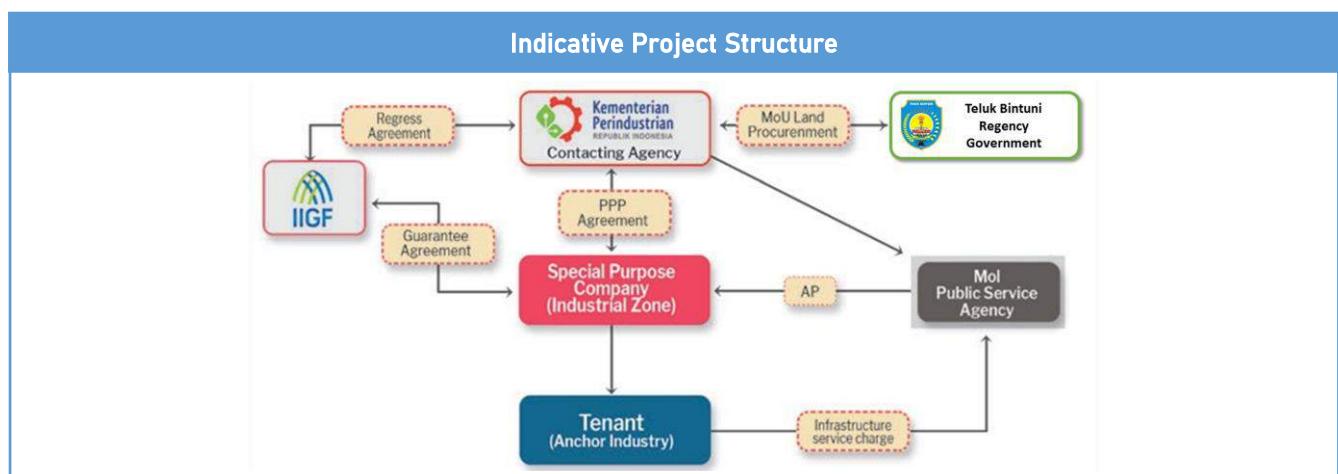
## TELUK BINTUNI INDUSTRIAL ZONE

Location : Teluk Bintuni, West Papua Province

Sector : Zoning	Sub-Sector : Industrial Zone
	<p><b>Description:</b>          Teluk Bintuni Industrial Zone is a National Strategic Project according to Presidential Regulation No. 56 Year 2018. This Industrial Estate consists of some natural gas plant processing to methanol, polyethylene, and polypropylene. The potential anchor industry and estate operator is PT Pupuk Indonesia.</p>
<p><b>Government Contracting Agency:</b>          Minister of Industry</p> <p><b>Type of PPP:</b>          Solicited</p> <p><b>Return of Investment:</b>          Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 451.10 Million</p> <p><b>Financial Feasibility:</b>          FIRR : 10.17%          NPV : USD 13.20 Million</p> <p><b>Estimated Concession Period:</b> 23 years (including EPC Period)</p>

Indicative Project Schedule


Project Status : Final Business Case



## Project Digest

Project Title	Teluk Bintuni Industrial Zone
Government Contracting Agency	General Secretary, Ministry of Industry
Implementing Unit	Directorate General of Chemical, Textile, and Various Industry
Preparation Agency	Ministry of National Development Planning/National Planning Agency
Project Cost	USD 451.10 Million
Estimated Concession Period	23 Years (including 3 years EPC period)
Location	Teluk Bintuni Regency, West Papua

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Map of Teluk Bintuni Industrial Zone

### 2. The Opportunity

#### 2.1. Project Background

Teluk Bintuni Regency has an abundance of natural resources especially oil and gas resources. Oil and Gas resources there have been exploited by various companies both national and international and generate a large amount of revenue to the government of Indonesia.

Most of the resources here are exported in the form of natural gas or oil without further processing. This practice while still economically viable and profitable, can be improved if there is a processing plant nearby, creating an added-value product that can increase revenue for Indonesia. So, there is a need to have an industrial zone dedicated to processing the natural resources in Teluk Bintuni Regency, so the economic aspect of processing natural gas is still efficient and creates a new economic growth node in the eastern side of Indonesia.

#### 2.2. Project Description

The first phase of industrial zone development will be focused on the methanol plant that is designated to be an anchor tenant in the industrial zone. Methanol plant will process natural gas supplied from BP Tangguh refinery nearby and then be exported or used by other tenants in the industrial zone.

BP Tangguh has indicated to supply up to 90 mmscf/d of natural gas in the first phase. This plan is added with potential to supply another 90 mmscf/d of natural gas in 2026 when another tenant has arrived, and methanol demand increases. In addition, there are 200 MMSCFD potential supply from Getting Oil Kasuri Ltd. Which as of now focuses on on-shore development and no LNG plan.

Methanol plant is expected to churn out about 900 mtpa of methanol in its first phase of development. In the future, the industrial zone will be designated as a center for the petrochemical industry in Indonesia.

The construction of Teluk Bintuni Industrial Zone is planned to use PPP scheme with a return on investment of a business entity will be done by Availability Payment, and is offered to a business entity that has the potential to build and operate all facilities, and transfer the asset at the end of the term of cooperation.

### 2.3. Project Objectives

- To develop an industrial zone in West Papua province to process natural gas
- To find an anchor tenant for methanol plant.

## 3. Business Entity's Scope of Work

Build – Operate – Maintenance – Transfer.

## 4. Technical Specification

As Teluk Bintuni Industrial Zone will be designated as petrochemical industry center in Indonesia, the various petrochemical industry will be encouraged to build their plant there. So, there is a need to cater to their need regarding natural gas supply and land area.

In the year 2021 when the industrial zone comes to operational, it is predicted that there will be only the methanol plant which needs a supply of 90 mmscf/d natural gas with the land requirement of 20 ha. In the second phase, possibly in 2026, it is expected the industrial zone will add another methanol plant in conjunction with other petrochemical plants (DME, PE, or Ammonia & Urea) which will require 90 mmscf/d natural gas and 50 ha of land.

In the final phase of development, another petrochemical plant will be added that required another 200 mmscf/d of natural gas and approximately and there would be about 2112 ha of land available for future development.

Teluk Bintuni regency is also famous for its palm oil and its potential coal reserves which could be utilized as raw material for various industries. Hence the development for future petrochemical complex is widely open and sustainable.

## 5. Environmental Impact Assessment (EIA/AMDAL) Findings

Environmental Impact Assessment report is being prepared up to the day this book is published.

## **6. Land Acquisition and Resettlement Action Plan**

Land acquisition for 50 ha of Teluk Bintuni Industrial Zone is being carried out by the Teluk Bintuni Regency Government.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>		<b>USD 451.10 Million</b>
<b>Indicative Debt to Equity Ratio</b>		
- <b>Debt Level</b>		70%
- <b>Equity Level</b>		30%
<b>FIRR</b>		10.17%
<b>NPV</b>		USD 13.20 Million

## **8. Government Support and Guarantee**

GCA has acquired Project Development Fund (PDF) as of 24 January 2020 for the preparation of Final Business Case (FBC) and transaction assistance. Government guarantee will be determined in the Final Business Case.

## **9. Contact Information**

Name : Triyani

Position : Section Head of Anorganic Chemical Industry Empowerment

Phone : +6221-525-3214 / +6281586085670

Email : ani.iatdk@gmail.com

## DEVELOPMENT OF JOGJA AGRO PARK

Location : Kulon Progo, Yogyakarta Province

Sector : Zoning	Sub-Sector : Science and Techno Park
<p><b>Map Description:</b> Located at the planned <b>Jogjakarta Outer Ring Road/JORR (Primary Artery)</b> with 24 meters of ROW. The main road from <b>Yogyakarta International Airport (YIA)</b>, <b>Kulon Progo</b> to <b>Borobudur Temple Tourism Area</b>. Distances shown: 29 Km to Candi Borobudur, 31 Km to Klaten, 24 Km to Bantul, 30 Km to Malioboro, and 29 Km to Bandara IIA Kulonprogo.</p>	<p><b>Description :</b> Jogja Agro Park (JAP) is expected to be model that can serve as a beneficial agribusiness learning unit (incubator). Private partners shall be responsible for constructing some facilities to accomplish the site plan, as well as conducting agribusiness researches and development, and at the same time establishing a partnership through contract farming, offering consultation for farmers, and maintain management of Jogja Agro Park.</p>
<p><b>Government Contracting Agency :</b> Governor of Yogyakarta</p> <p><b>Type of PPP :</b> Solicited</p> <p><b>Return of Investment :</b> User Charge</p>	<p><b>Estimated Project Cost:</b> USD 34.23 Million</p> <p><b>Financial Feasibility:</b> IRR : 14,70 % NPV : USD 15.13 Million</p> <p><b>Estimated Concession Period:</b> 20 years</p>
<p><b>Indicative Project Schedule</b></p>	
<p><b>Project Status: Outline Business Case</b></p>	
<p><b>Indicative Project Structure</b></p> <pre> graph TD     GCA[Governor of Yogyakarta (GCA)] -- "Recourse Agreement" --&gt; PII[PT PII PENJAMINAN &amp; INFRASTRUKTUR]     GCA -- "PPP Agreement" --&gt; SPC[Special Purpose Company]     PII -- "Guarantee Agreement" --&gt; SPC     IA[Implementing Agency] -.-&gt; AASA[Agriculture and Food Security Agency]     AASA -- "Regulator" --&gt; SPC     SPC -- "Service" --&gt; EU[End User]     SPC -- "Tariff" --&gt; EU     EU -- "Farmer (Land Owner)" --&gt; FO[Farmer (Land Owner)]     EU -- "Visitor" --&gt; VI[Visitor]     LFI[Lender / Financing Institution]     EIS[Equity / Sponsor]     LFI --- SPC     EIS --- SPC   </pre>	

## Project Digest

Project Title	Development of Jogja Agro Park
Government Contracting Agency	Governor of Special Region of Yogyakarta
Implementing Unit	Agriculture and Food Security Office (Dinas Pertanian dan Ketahanan Pangan)
Preparation Agency	National Development Planning Agency
Project Cost	USD 34.23 Million
Estimated Concession Period	20 Years
Location	Wijimulyo Village, Nanggulan District, Kulon Progo Regency, Special Region of Yogyakarta

### 1. Project Picture (Map and/or Illustration of Project)

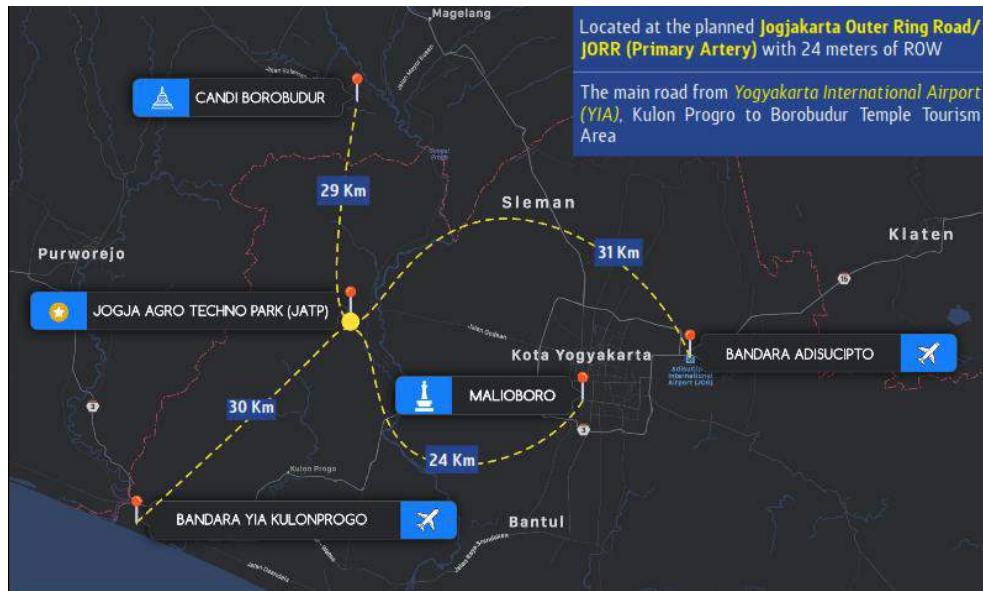


Figure 1 – JAP Location at Yogyakarta Special Region



Figure 2 – Illustration of Jogja Agro Park Masterplan

## **2. The Opportunity**

### **2.1. Project Background**

The conversion of agricultural land in DIY into settlement continued to occur, which resulted in smaller ownership of private agricultural land. There still farmers who faced difficulties in developing quality agricultural products and agribusiness activities, which results in low farmer income. The impact is that the interest of young generation to become farmers is decreasing. However, this will threaten national food security.

To solve the problems above, a pilot model, education, production, marketing as well as superior and sustainable agriculture-based tourism is needed. Therefore, the Government of DIY plans to develop Jogja Agro Park as an incubator for farmers towards better income, while educating integrated farming to reduce land use change.

### **2.2. Project Description**

The JAP Project located in Wijimulyo, Nanggulan, Kulon Progo Regency covering an area of 18.8 Ha. The project combines an ecotourism concept and a specific interest (agriculture-based education) that functions as a unit of agribusiness entrepreneurship learning installation to carry out the idea of agribusiness incubation. Agribusiness entrepreneurship learning is designated to provide incubator service users (tenants) with facilities in accessing and utilizing information on mobile application, agro-inputs, markets, finance, and other resources according to the tenants need respectively, in real situation and for a certain period.

Several facilities have been established by the Local Government:

1. Paddy rice field of 6.93 hectares on the north side of the street and another 4.57 hectares on the south side (situated behind the JAP building area)
2. Existing facilities and buildings built by DIY Government budget such as Office Area, Training Hall, Dormitories, Production Shed, Greenhouse, etc.

### **2.3. Project Objectives**

The project aims to increase farmers' revenue hence it may reduce agricultural land conversion.

## **3. Business Entity's Scope of Work**

Private partners shall be responsible for constructing some facilities to accomplish the site plan, as well as conducting agribusiness researches and development, such as:

- a. Develop business agriculture facilities
  - agribusiness incubator
  - integrated and healthy farming
  - contract farming (partnership with local farmers)
  - agriculture training centre
- b. Develop ecotourism facilities
  - ecotourism
  - mass tourism
  - MICE (Meeting, Incentive, Convention, and Exhibition)

#### **4. Technical Specification**

Jogja Agro Park (JAP) is expected to be one agro-based industry that has function:

- 1) Design, build and finance the construction of the Jogja Agro Park area with a total land area of 18.8 hectares (ha).
  - zone A land area of 7.32 Ha: can be designed, built, operated, for the commercial of agriculture and tourism; and repaired existing buildings façade;
  - zone B land area of 6.93 Ha: land function as a sustainable food agriculture area is maintained;
  - zone C land area of 4.57 Ha: land function as a sustainable food agriculture area is maintained, but can be commercialization such as building boardwalks, viewing decks and restaurants.
- 2) Horticultural plants, flowers, and other plants that already exist in Zone A, can be replaced with other plants, if the time the plants can no longer produce.
- 3) maintain ruminants, poultry, rabbits and fish that already exist in Zone A and are developed as components in integrated farming.
- 4) establishing of contract farming by develop partnership with local farmers to improve agricultural production in land area of 22,287 ha.
- 5) building facilities for incubator agribusiness.
- 6) building facilities for integrated and healthy farming: application for environmentally friendly technology, zero waste and LEISA (low external input sustainability agriculture)
- 7) building facilities for development of upstream-downstream farming activities in the food crops, horticulture and animal husbandry.
- 8) build an agro market and marketing agricultural commodities from local farmers
- 9) building facilities for agricultural training, compiling agricultural training modules and conducting agricultural training.

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Environmental Impact Assessment (EIA) has been completed and approved by the AMDAL Committee in 2018. Environmental management must be carried out during the construction and operation of the JAP.

#### **6. Land Acquisition and Resettlement Action Plan**

Land owned by Local Government of DIY, situated in Wijimulyo Village, Nanggulan District, Kulon Progo Regency is available, of 18.8 Ha. Up to the present moment, the land has been used for food crop seed planting area (especially paddy seed) conducted by the the Seed Development and Production Technical Unit (UPT BPPTPH) under the Agriculture Office of DIY. An area of 7.32 ha is planned to be allocated for PPP of JAP Development.

#### **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>34.23 Million USD</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70 %</b>
- <b>Equity Level</b>	<b>30 %</b>
<b>IRR</b>	<b>14.70 %</b>
<b>NPV</b>	<b>15.13 Million USD</b>

## **8. Government Support and Guarantee**

The indicative Government support for JAP Development Project are written below:

- Building Permit: Kulon Progo Regency Government provides permits needed by private investors in the implementation of the JAP Development Project
- Support for the provision of land: land is available.
- Support from the Agriculture Agency/Ministry of Agriculture: facilitate the farmers to follow the training in JAP with the DIY's budget, technology support, and various agricultural materials needed in JAP operations.

To mitigate the project's risks from changes in demand risk and shifts in political scenario, government guarantee required. In this regard, the level of risk perceived from investors will be determined at market sounding.

## **9. Contact Information**

Name : Drs. Tri Saktiyana, M.Si  
Position : Assistant for Economic Affairs and Development of the Regional Secretariat  
Address : Komplek Kepatihan, Danurejan, Yogyakarta 55213  
Phone : +62 274 562811  
Mobile Ph : +62 813 2828 6888  
Fax : +62 274 588613  
Email : [santel@jogjaprov.go.id](mailto:santel@jogjaprov.go.id)

Name : Ir Sugeng Purwanto, MMA  
Position : Deputy Director of Agriculture Agency  
Address : Komplek Kepatihan, Danurejan, Yogyakarta 55213  
Phone : +62 274 563937  
Mobile Ph : +62 856 4334 9937  
Fax : +62 274 563937  
Email : [distan@jogjaprov.go.id](mailto:distan@jogjaprov.go.id)

# **UNDER PREPARATION PROJECTS**



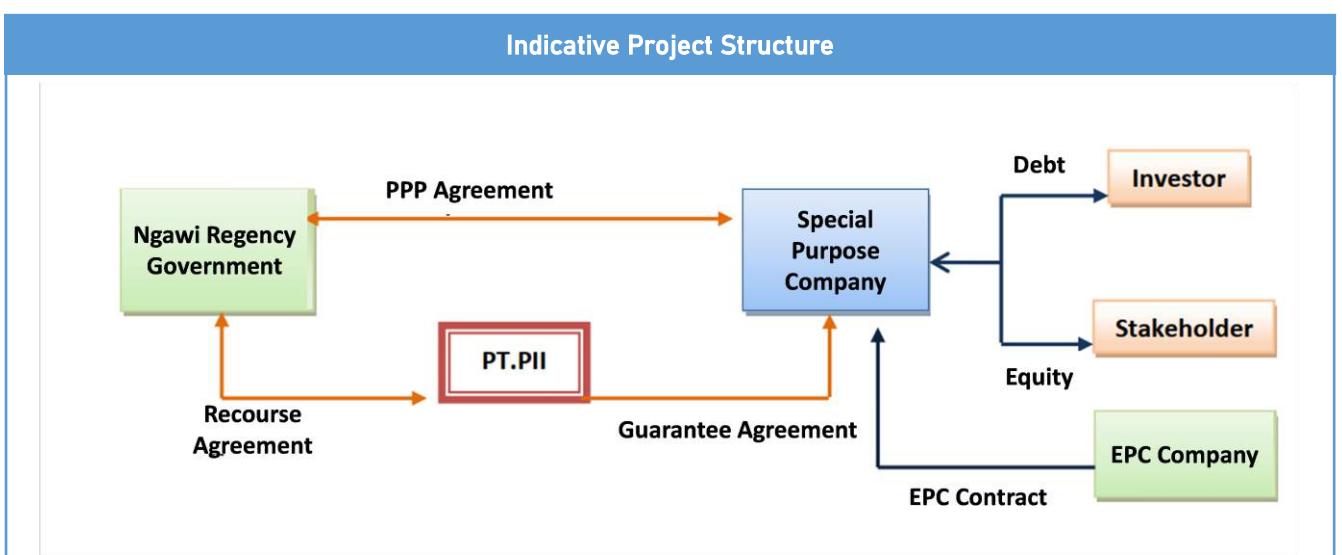
**Tourism:**

1. Development of Ngawi Agrotourism

## DEVELOPMENT OF NGAWI AGRITOURISM

Location : Ngawi, East Java Province

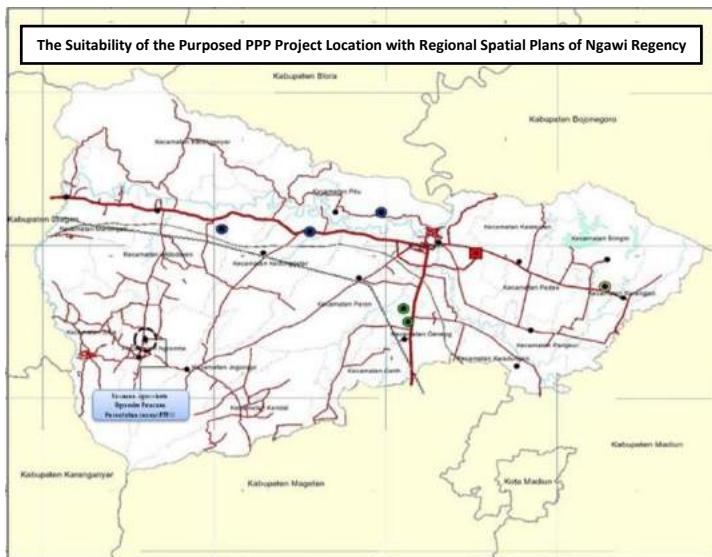
Sector : Tourism	Sub-Sector : Tourism Area
	<b>Description:</b> Ngawi Agritourism is the manifestation of creative economy in the agricultural sector that can provide added value to agribusiness ventures in improving the welfare of farmers. Some positive impacts of the agritourism development are, increasing the sale value of agricultural commodities and providing additional source of income for the farmers, e.g: homestay rentals and others.
<b>Government Contracting Agency:</b> Regent of Ngawi <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 2.52 Million <b>Financial Feasibility:</b> IRR : 23% NPV : USD 1.35 Million <b>Estimated Concession Period:</b> 30 years



## Project Digest

Project Title	Development of Ngawi Agritourism
Government Contracting Agency	Regent of Ngawi
Implementing Agency	BAPPELITBANG Tourism, Youth and Sport Agency
Preparation Agency	BAPPELITBANG
Project Cost	USD 2.52 Million
Estimated Concession Period	30 Years
Location	Ngrambe District, Ngawi Regency

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Location of Ngawi Agritourism

### 2. The Opportunity

#### 2.1. Project Background

The purpose of the Ngawi Agritourism development is to support the agricultural sector of Ngawi Regency. Tourism activities is becoming the added value of product diversification in agribusiness. Thus, Agritourism can be the source of new growth, to boost agricultural productivity in the economic sector.

Hence, Ngawi Agritourism can be envisioned as the new development area that will support the improvement of the farmers' welfare through promoting agricultural products (increasing the sale value of agriculture commodities), cultural attraction as well as hospitality services (homestay rentals). In addition, Ngawi agritourism is can be used to promote agricultural and cultural products of Ngawi.

#### 2.2. Project Description

The vision of Ngawi Agritourism in principle is to improve the welfare of farmers and community through the concept of agricultural development in accordance with its potential and needs. The priority of the agritourism is to add value in agricultural supply chain to

strengthen and enhance local economic resources. This can be achieved through government involvement with possible cooperation support with private parties / investors.

The concept of agritourism development is based on the principle of cohesiveness, business approach, sustainability, utilization of science and technology, and community empowerment. Alongside with the combination of agriculture attraction, science and technology utilization (Agrotechnology), The Ngawi Agritourism can be transformed as Ngawi's new major tourism destination, and also can be the place to train more skilled, reliable and independent human resources. Hopefully, this agritourism area can be the example of the application of agricultural technology, integrated livestock, fisheries, and post-harvest from upstream to downstream in large scale without waste.

The examples of economic opportunities that can be developed in Agritourism are multiple systems cropping between daily harvests such as poultry, dairy cows, seasonal harvests such as corn, rice, monthly harvests such as fish, annual harvests such as fruit, cattle, etc. This pattern is suitable to be developed in the Ngawi's local community with the result of helping farmers to have multiple income stream as an addition to annual income from regular harvests.

### 2.3. Project Objectives

The purposes of Ngawi Agritourism are as follows:

1. To become a recreation spot for tourist whilst expanding their knowledge on agriculture.
2. To increase farmers' incomes while maintaining local culture and technology (indigenous knowledge) which generally have attuned to the conditions of the natural environment.
3. To serve as a direct marketplace that brings farmers together as a producer of agricultural products with tourists as end-user of products.

### 3. Business Entity's Scope of Work

D-B-F-M-T (Design – Build – Finance – Maintenance – Transfer)

### 4. Technical Specification

The technical specifications for Ngawi Agritourism are as follows:

No	Facilities	Capacity
1	Area	12 hectares
2	Facilities	<ul style="list-style-type: none"><li>1. Agribusiness Incubation Facilities</li><li>2. Green House</li><li>3. Aquaponic Facilities</li><li>4. Pond/Reservoir</li><li>5. Plaza</li><li>6. Agricultural &amp; Fisheries Facilities</li><li>7. Viewing Post/Station</li><li>8. Lodging Facilities (Hotel)</li><li>9. Meeting Room</li></ul>

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

The documents will be prepared during preparation stage.

## **6. Land Acquisition and Resettlement Action Plan**

According to preliminary study, the area of land needed is 12 hectares with access to basic infrastructure. Some of the land is owned by Ngawi Regency, while others owned by the local community which are ready to be included in land acquisition process. The land use for development of agritourism is inline with the Regional Spatial Planning (RTRW).

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 2.52 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under Calculation
- <b>Equity Level</b>	Under Calculation
<b>IRR</b>	23 %
<b>NPV</b>	USD 1.35 Million

## **8. Government Support and Guarantee**

GCA will be responsible for land acquisition for the project and will support the SPC during the permit and licenses process. It is also indicated during preliminary study that this project will need government guarantee from IIGF.

Further government support and guarantee requirement will be determined in the preparation stage.

## **9. Contact Information**

Name : Indah Kusumawardhani, S.Pt, M.Si

Position : Head of Regional Development Planning and Research Agency

Phone : (0351) 746 709

Name : Kusumawati Nilam S.

Position : Head of Infrastructure and Regional Development Division

Phone : 082132327494

Email : kusumawati\_nilam@yahoo.com

# **UNDER PREPARATION PROJECTS**



**Education, Research and  
Development:**

- 1. Construction of National  
Maritime Research Zone**

## CONSTRUCTION OF NATIONAL MARITIME RESEARCH ZONE

Location : Cibinong, West Java Province

**Sector : Education, Research and Development**



**Sub-Sector : Research Center**

### Description:

The Project is on providing marine research support services, including: invest on two research vessels; construction and operation management of a new hangar, a warehouse, laboratories and an office building for SPC at an area of about 20,000 sqm on LIPI Science Park in Cibinong, West Java, as well as operation of fleet management unit (FMU) of both the Indonesian Institute of Sciences' (LIPI) research vessels and SPC's own vessels.

### Government Contracting Agency:

Indonesia Institute of Sciences (LIPI)

### Type of PPP:

Solicited

### Return of Investment:

User Charge

**Estimated Project Cost:** USD 199.21 Million

### Financial Feasibility:

IRR : 11.00 %

NPV : USD 0.48 Million

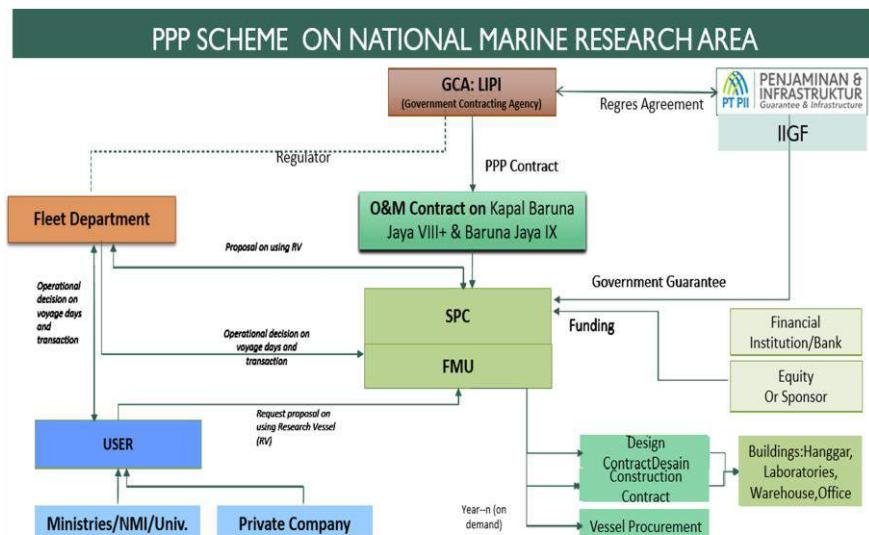
**Estimated Concession Period:** 30 years

### Indicative Project Schedule



**Project Status:** Outline Business Case

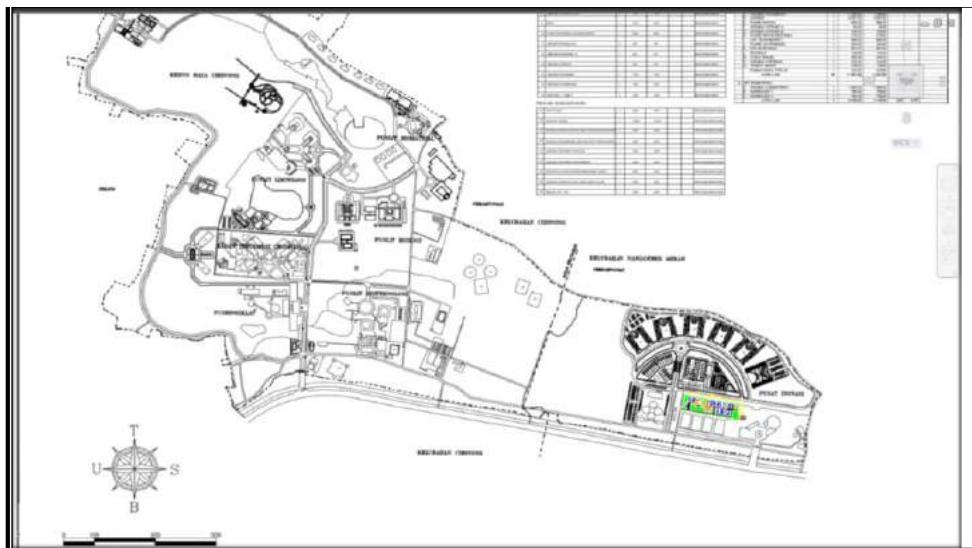
### Indicative Project Structure



## Project Digest

Project Title		Construction of National Maritime Research Zone
<b>Government Contracting Agency</b>		Indonesian Sciences Institute (LIPI)
<b>Implementing Unit</b>		Planning and Budgeting Office of LIPI
<b>Preparation Agency</b>		National Development Planning Agency
<b>Project Cost</b>		USD 199.21 Million
<b>Estimated Concession Period</b>		30 years (excluding 2 years construction period)
<b>Location</b>		Office and Laboratories at LIPI Science Park at Cibinong, Bogor Regency, West Java. Vessel operation area on Indonesian marine territory and its surroundings

### 1. Project Picture (Map and/or Illustration of Project)



Picture 1 – Layout of LIPI Research Facilities

### 2. The Opportunity

#### 2.1. Project Background

LIPI is eager to upgrade the level of marine research support services into international standard, by providing services of research vessels in particular. At present, there are several circumstances that prevent LIPI to do this effort so far. These include state budgeting procedures and inappropriate unit cost applied to meet the international standard. There are many cases of unexpected failure of instrument or equipment that could not be repaired because the any budgeting should be proposed a year before. This led to delays in repair and maintenance procedure. As a result, the quality of the vessel become worse and scheduling become difficult. On the other hand, unit cost applied in state budget is to maintain the vessel

is far below the the international standards. Therefore, Third party participation from private sector is needed.

In addition to that, available research vessels have been in operation for more than 30 years and need improvement. Moreover, the coverage of Indonesian ocean is too large to be explore with existing research vessels. Hence, the number of research vessels needs to be increased.

Those situations alone would justify LIPI to engage private sector to share risk by offering benefits to the private sectors. Therefore, LIPI not only can manage both of operation and maintanace of the research vessels, but also expand its marine research coverage alongside partnership with the international research society. Moreover, the operation of the research vessels will become the new business that comply with international standard through private sector handling.

In placing the activities of fleet management of research vessels that well equipped with supports of laboratories related to related marine research, LIPI will invite the partner of private sector to manage National Maritime Research Zone (*Kawasan Riset Kelautan Nasional* – KRKN) within LIPI Science Park in Cibinong through PPP scheme.

## 2.2. Project Description

National Maritime Research Zone is intended to be a center of facilities to support marine research with international standard. At the ocean side, a fleet management unit will operate the research vessels that embedded with updated marine research instruments and capable to host portable research equipments. Two research vessels will be provided as government support by LIPI (as GCA), and another two to four research vessels will be provided by the SPC as its investment. At the land side, an area of about 20.000 sqm would accommodate an office building, a hangar, a warehouse adjacent to a workshop, which can be utilised to develop and masters marine research technology, and 4 (four) laboratories to support data/samples processing and analysis.

## 2.3. Project Objectives

The project aims to provide marine research services that comply with international standard with sophisticated research vessels, laboratories, data/sample processing and analysis for sustainable use of Indonesian marine resources in Indonesian Exclusive Economic Zone and its surroundings.

SPC will handle the operation and maintenance of the research vessels, equipments, laboratories, and human resources. allowing LIPI to focus on expanding marine research and technology through joint research with regional/international partners in Indonesia as well as abroad.

## 3. Business Entity's Scope of Work

Private sectors shall be selected to become partner in establishing Special Purpose Company (SPC) and contract will be prepared for constructing the facilities and an office building according to the site plan. Some business entities will have an opportunity in the field, such as:

- fleet management;

- marine research and survey;
- marine research and survey equipment;
- minerals, oil and gas industries;
- building constructions;

#### **4. Technical Specification**

National Maritime Research Zone is intended to be a center of facilities to support marine research with international standard. At the ocean side, a fleet management unit will operate the research vessels that embedded with updated marine research equipments and able to accommodate portable instruments. At the land side, a theme park would accommodate an office building, a hangar, a warehouse adjacent to a workshop for understanding and developing marine research equipment, and 4 (four) laboratories to support data/samples processing and analysis.

The scope of the National Maritime Research Zone operations are as follows:

- To support the research in the field of marine geoscience, atmosphere- ocean relation, fishery, and hydrography.
- To manage (operation and maintenance): 1) the operation of research vessels; 2) the uses of marine research apparatus/equipment; 3) the operation of 4 laboratories and its apparatus for the sample and data processing; 4) the development of technology and instruments in marine research; 5) to provide qualified and certified manpower/specialist as needed; 6) marketing the services of ; 7) business development of services of National Maritime Research Zone, as mandated in the agreement with the government contracting agency.
- To provide customer services that would cover: marine data acquisitions and processing.

Level of services is subject to meet as stated in the PPP agreement.

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Land side of the National Maritime Research Zone is about 20.000 sqm, less than 50.000 sqm for the minimum limit imposed to have Environmental Impact Assessment (EIA). It is located within a science park area. However, laboratory activities and the transportation of the laboratory chemicals as well as samples might have to be conducted according to the proper conduct of handling hazardous and toxic substances. Document of Environmental Management Efforts and Environmental Monitoring Efforts (RKL/UPL) should be carried out during the construction and operation of the KRKN.

#### **6. Land Acquisition and Resettlement Action Plan**

Land, an area of about 20.000 sqm, owned by LIPI (Indonesian Sciences Institute), situated in Cibinong at LIPI Science Park (total of 108 ha), at km 46 on the Main Road of Jakarta – Bogor, Bogor Regency, Province of West Java.

Up to the present moment, the land is vacant and no resettlement will be required. The location is nearby buildings for fishery cultivation of Ministry of Marine and Fishery. LIPI will deliver "clean and clear" status of the area required by SPC to obtain related permission and construct the buildings on the designated land, accordingly to the PPP agreement.

## 7. Project Cost Structure

Estimated Project Cost		USD 199.21 Million
<b>Indicative Debt to Equity Ratio</b>		
-	<b>Debt Level</b>	70%
-	<b>Equity Level</b>	30%
FIRR		11.00 %
NPV		USD 0.48 Million

## 8. Government Support and Guarantee

LIPI will provide two research vessels that consist of retrofitted KR Baruna Jaya VIII and a new research vessel for the SPC to initiate and manage the services.

LIPI will act as GCA will guarantee of 360 voyage days a year for SPC on first and second year of operation

## 9. Contact Information

Name : Prakoso Bhairawa Putera, S.I.P., MA.

Position : Head of Planning and Budgeting Office of Indonesian Sciences Institute

Phone : +62-813 73600029;

Email : pb.putera@gmail.com;

# UNDER PREPARATION PROJECTS



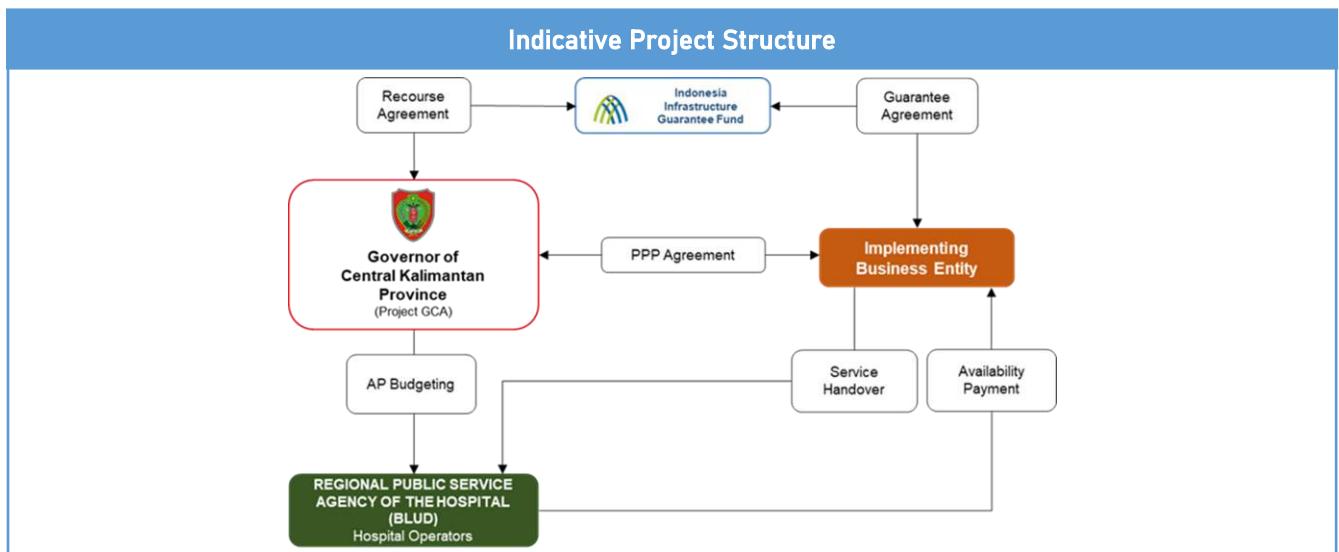
Health:

1. Construction Of Class A Regional General Hospital In Central Kalimantan

## CONSTRUCTION OF CLASS A REGIONAL GENERAL HOSPITAL IN CENTRAL KALIMANTAN

Location : Central Kalimantan Province

Sector : Health	Sub-Sector : Hospital
	<b>Description :</b> The ratio of beds to 1,000 inhabitants in Central Kalimantan Province is still below the ideal ratio. This project is to increase the bed capacity of dr. Doris Sylvanus Regional Hospital, a provincial-owned hospital to 400 beds and improve the hospital class from Class B Hospital to Class A Hospital.
<b>Government Contracting Agency:</b> Governor of Central Kalimantan Province	<b>Estimated Project Cost:</b> USD 50.36 Million
<b>Type of PPP:</b> Solicited	<b>Financial Feasibility:</b> IRR : 13.50 %
<b>Return of Investment:</b> Availability Payment	NPV : USD 10.59 Million
	<b>Estimated Concession Period:</b> 20 Years



## Project Digest

Project Title		Construction Of Class A General Hospital In Central Kalimantan
<b>Government Contracting Agency</b>		Governor of Central Kalimantan Province
<b>Implementing Agency</b>		Health Agency of Central Kalimantan Province – Dr. Doris Sylvanus Regional General Hospital
<b>Preparation Agency</b>		Health Agency of Central Kalimantan Province – Dr. Doris Sylvanus Regional General Hospital
<b>Project Cost</b>		USD 50.36 Million
<b>Estimated Concession Period</b>		20 Years
<b>Location</b>		Central Kalimantan

### 1. The Opportunity

#### 1.1. Project Background

One indicator of the healthcare service of a country is the availability of public health facilities. This availability can be observed from the ratio of hospital beds to the population, that is, one bed for every 1,000 people. The number of beds available in Central Kalimantan Province is 2,425 beds distributed in 26 hospitals in the Regency / City. Since the total population of Central Kalimantan Province in 2018 was 2,660,209 people, then the ratio of hospital beds to the population was 0.91.

The ratio of beds to 1,000 inhabitants in Central Kalimantan Province is still below the ideal ratio, and this shows that there is still a shortage of 236 beds to reach the ideal ratio. As a solution to overcome the shortage of beds in Central Kalimantan Province, dr. Doris Sylvanus Regional Hospital will increase the bed capacity to 400 beds and improve the hospital class from Class B Hospital to Class A Hospital.

#### 1.2. Project Description

This project is to increase the bed capacity of dr. Doris Sylvanus Regional Hospital, a provincial-owned hospital to 400 beds and improve the hospital class from Class B Hospital to Class A Hospital with PPP scheme. The Business Entity will receive the return of investment in the form of Availability Payment (AP) during the 20 years cooperation period paid by the Central Kalimantan Province Government via Regional Budget (APBD). The Project will be conducted with a build-finance-maintenance-transfer scheme.

#### 1.3. Project Objectives

The objectives of Class A Public Hospital of Central Kalimantan Province are as follows:

1. Improving the access to the Tertiary Referral Health Services (specialist and sub-specialist services)
2. Fulfilling the needs of beds for the Central Kalimantan Province

## **2. Business Entity's Scope of Work**

The Business Entity shall be responsible for:

1. Providing the design, planning, financing, procurement, supply and construction of the class A hospital buildings and all of the infrastructure, equipment and health service support facilities related to the building.
2. Planned preventive maintenance activities related to testing, inspection, or other relevant activities carried out in accordance with good operational practices to maintain the reliability of an asset, tangible/intangible objects, or an equipment as well as their infrastructure and facilities as part of it so that the assets, tangible/intangible objects, or the equipment may always be on their finest condition.
3. Planned or unplanned curative maintenance activities, carried out in accordance with the operational best practices to repair and/or replace parts of assets, tangible/intangible objects, or an equipment as well as their infrastructure and facilities as part of them so that assets, tangible/intangible objects, or the equipment may always be on their finest condition.

Meanwhile, the hospital's daily operational activities will be carried out by the Regional Public Service Agency (BLUD).

## **3. Technical Specification**

The technical specifications for Class A Regional General Hospital are as follows:

No	Item	Specification
1	Finance	Financing by the Business Entity for the construction, operational, and maintenance work.
2	Construction	Providing the design, planning, financing, procurement, supply and construction of the class A hospital buildings and all the infrastructure, equipment and supporting facilities for the health services related to the building.
3	Preventive Maintenance	Maintenance activities of the class A hospital buildings, i.e. planned activities related to a testing, checking, or other relevant activities carried out in accordance with operational best practice to maintain the reliability of an asset, tangible/intangible objects, or an equipment as well as their infrastructure and facilities as part of it so that the assets, tangible/intangible objects, or the equipment can always be reliable to function in accordance with their intended purpose.
4	Curative Maintenance	Maintenance activities of the class A hospital buildings, planned or unplanned, carried out in accordance with the operational best practice to repair and/or replace parts of the assets, tangible/intangible objects, or an equipment as well as their infrastructure and facilities as part of it so that the assets, tangible/intangible objects, or the equipment can always be reliable to function in accordance with their intended purpose.

#### **4. Environmental Impact Assessment (EIA/AMDAL) Findings**

The Project falls under the 'Building Construction' category, which required an AMDAL. The AMDAL needed is a Category C AMDAL.

#### **5. Land Acquisition and Resettlement Action Plan**

No land acquisition is needed. The Project will be conducted on a Local Government-Owned Property.

#### **6. Project Cost Structure**

Estimated Project Cost		USD 50.36 Million
Indicative Debt to Equity Ratio		
-	Debt Level	Under Calculation
-	Equity Level	Under Calculation
IRR		13.50 %
NPV		USD 10.59 Million

#### **7. Government Support and Guarantee**

- Government Support: The Project does not apply for any Government Support.
- Government Guarantee: The Project is guaranteed by IIGF.

#### **8. Contact Information**

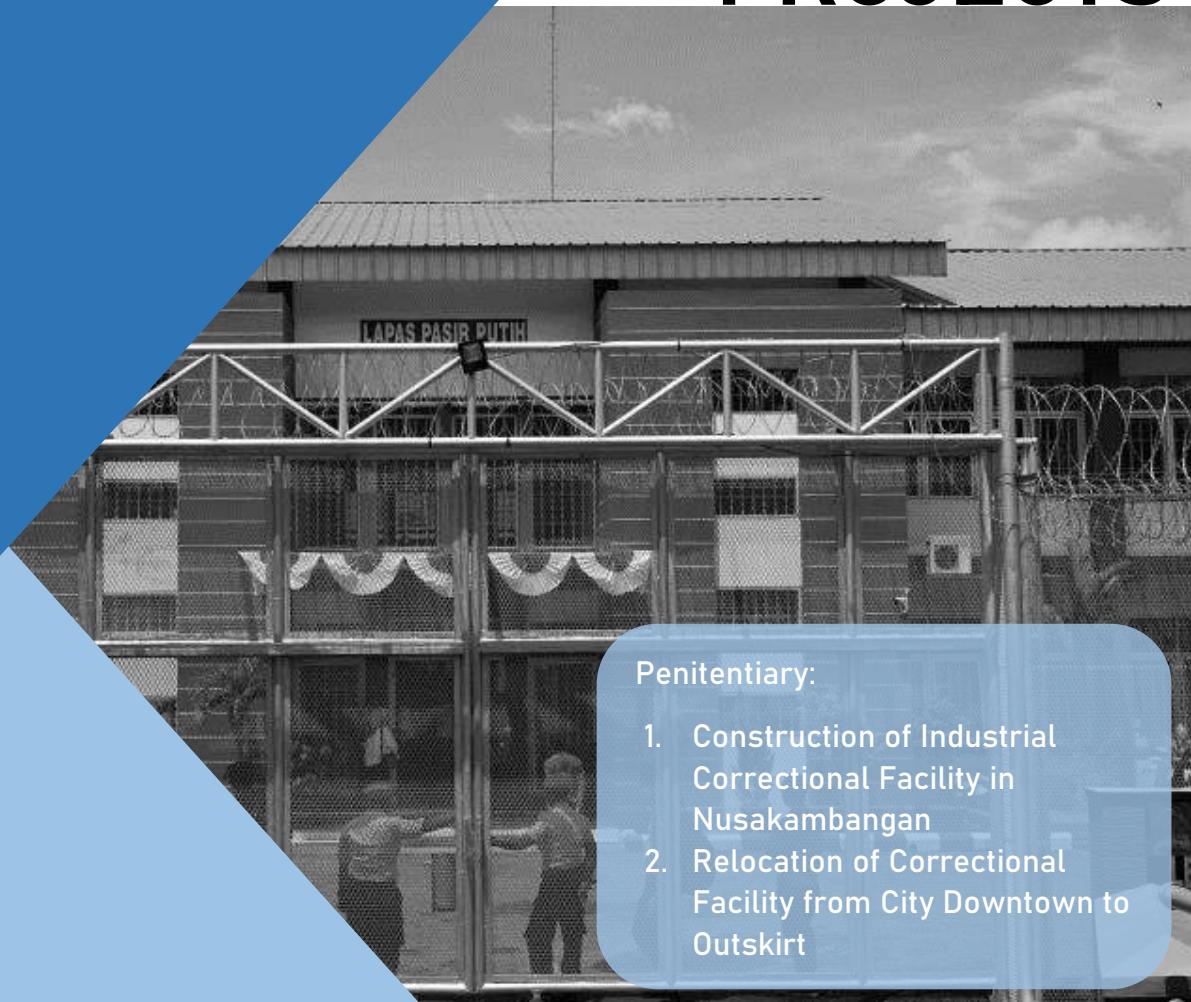
Name : Yuren S. Bahat

Position : Head of Regional Development Planning, Research and Development Agency of Central Kalimantan Province

Phone : +62 536 3221767 / +62 852-5274-4124

Email : kpburs.kalteng@gmail.com

# UNDER PREPARATION PROJECTS



## Penitentiary:

1. Construction of Industrial Correctional Facility in Nusakambangan
2. Relocation of Correctional Facility from City Downtown to Outskirt

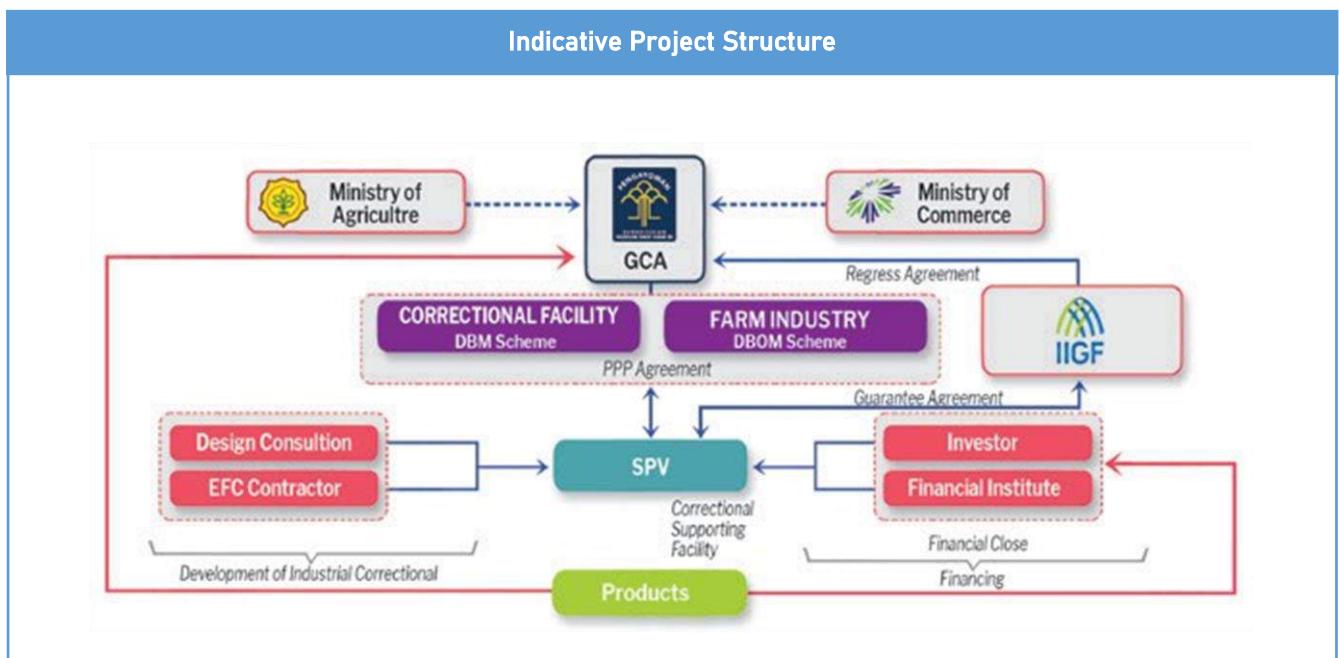
## CONSTRUCTION OF INDUSTRIAL CORRECTIONAL FACILITY IN NUSAKAMBANGAN

Location : Nusakambangan, Central Java Province

Sector : Penitentiary	Sub-Sector : Correctional Facility
	<p><b>Description:</b>            The Project will combine correctional facility with productive activities such as livestock breeding. The project aims to increase the value of prison by adding economic production which is expected to promote regional economic growth.</p>
<b>Government Contracting Agency:</b> Minister of Law and Human Right <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Under Review	<p><b>Estimated Project Cost:</b> USD 36.60 Million</p> <p><b>Financial Feasibility:</b>            IRR : 13.57 %            NPV : USD 83 Million</p> <p><b>Estimated Concession Period:</b> 25 years</p>

Indicative Project Schedule						
FBC Q3 2020	Pre-Qualification Q4 2020	Request for Proposal Q2 2021	Bid Award Q3 2021	Agreement Signing Q4 2021	Financial Close Q1 2022	Construction Q1 2022

Project Status: Outline Business Case



## Project Digest

Project Title	Construction Of Industrial Correctional Facility In Nusakambangan
Government Contracting Agency	Minister of Law and Human Right
Implementing Unit	Direktorat General of Correctional Facility
Preparation Agency	1. Directorate General of Correctional Facility 2. Ministry of National Development Planning
Project Cost	USD 36.60 Million
Estimated Concession Period	25 Years
Location	Nusakambangan, Cilacap, Central Java

### 1. Project Picture (Map and/or Illustration of Project)



Figure 1 – Map of Nusakambangan Correctional Facility Location

### 2. The Opportunity

#### 2.1. Project Background

Correctional facilities not only aim as a prison but also to serve and train inmates prior to their release and socialize to the people afterwards. Nusakambangan Correctional Facility is located in Tambakreja Village, Cilacap Regency in Central Java Province with the area of about 216 km<sup>2</sup>. Indonesian government initiates a partnership of this facility by optimizing correctional institution assets with an open prison concept. The facility will be a minimum-security prison where inmates get training and skills of farming and/or breeding livestock.

#### 2.2. Project Description

The project will combine a correctional facility with productive activities such as livestock breeding. The geographic potential of Nusakambangan support this project as 210,000 Ha of the island will be used for this project. Moreover, Regency of Cilacap as the related area from

Nusakambangan is still facing a deficit of livestock such as cattle. Thus, the project aims to increase the value of prison by adding economic production which expected to promote regional economic growth.

### **2.3. Project Objectives**

The project aims are as follows:

- 1) Create an alternative concept of a correctional facility
- 2) Increase regional economy related to agriculture and farming
- 3) Improve skills of inmates prior to their release

### **3. Business Entity's Scope of Work**

The project will use Built Operate Transfer (BOT) scheme. The business entity will build the project from construction to the operation.

Revenue generated from the warden, Ministry of Law and Human Right Management, training, live- stock and farming sales as well as other potential activity such as biogas.

### **4. Technical Specification**

The technical specifications for the project as follow:

- 1) Correctional Facility
  - a. Building : 11,453 m<sup>2</sup>
  - b. Others : 13,000 m<sup>2</sup>
- 2) Livestock Facility
  - a. Building : 36,000 m<sup>2</sup>
  - b. Cattle Yard : 3,000 m<sup>2</sup>
  - c. Others : 14,000 m<sup>2</sup>
- 3) Industry : 600 m<sup>2</sup>
- 4) Cattle Cycle : 15,000 cattles

### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Currently, the project is in progress for pre-feasibility study. AMDAL activity will be decided afterwards and provided in subsequent studies.

### **6. Land Acquisition and Resettlement Action Plan**

More detailed about this matter will be provided in subsequent studies.

## **7. Project Cost Structure**

<b>Estimated Project Cost</b>	<b>USD 36.60 Million</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	<b>70%</b>
- <b>Equity Level</b>	<b>30%</b>
<b>IRR</b>	<b>13.57 %</b>
<b>NPV</b>	<b>USD 83 Million</b>

## **8. Government Support and Guarantee**

Government support and government guarantee will be determined in the Final Business Case.

## **9. Contact Information**

Name : Dodot Adikoeswanto

Position : Director of information technology and Cooperation, Ministry of Law and Human Rights

Phone : +62-21-3857615

Email : tu.infokom@gmail.com

Name : Irwan Rahmat Gumilar

Position : Head of Planning and Budgeting Departement, Ministry of Law and Human Rights

Phone : +62-21-3452155

Email : 2019prawilayah1@gmail.com

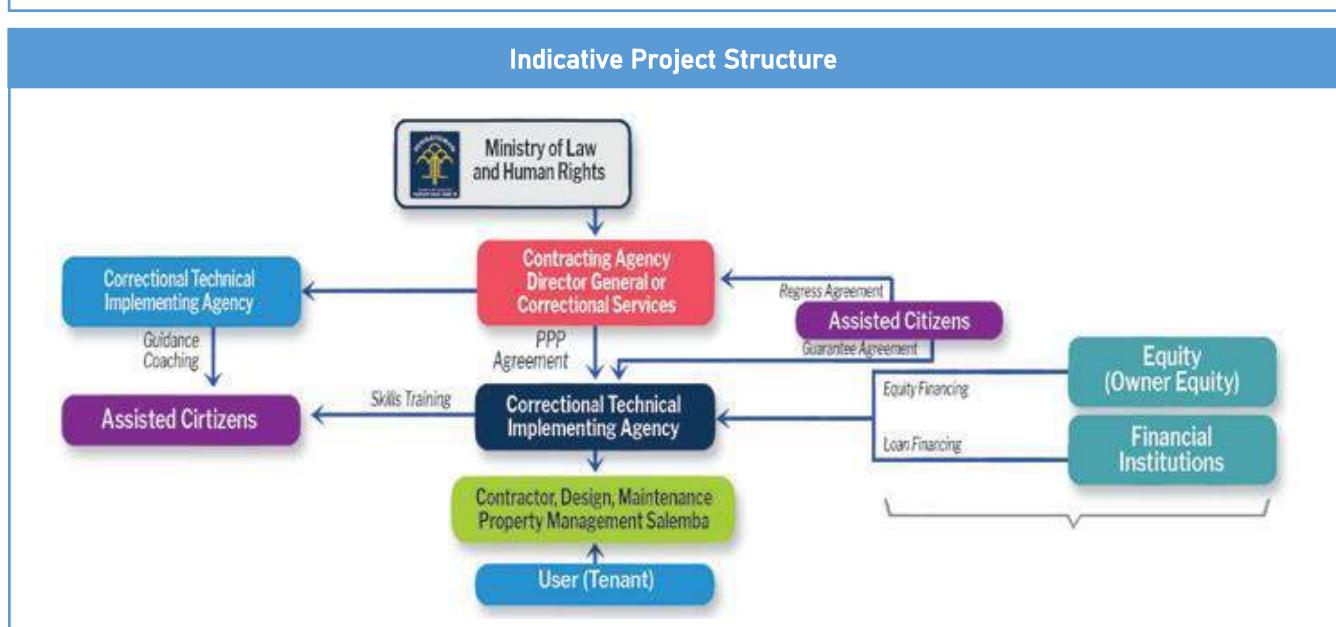
## RELOCATION OF CORRECTIONAL FACILITY FROM CITY DOWNTOWN TO OUTSKIRT

Location : Under Review

Sector : Penitentiary	Sub-Sector : Correctional Facility
	<p><b>Description:</b>          PPP project to relocate Salemba Correctional Facility that is located in Central Jakarta has the following objectives: (i) to solve the overcapacity in Salemba's prison; (ii) DKI Jakarta Spatial Plan did not accommodate current prison location; (iii) to accommodate the Government's budget constraint for building prisons.</p>
<p><b>Government Contracting Agency:</b>          Minister of Law and Human Right</p> <p><b>Type of PPP:</b>          Solicited</p> <p><b>Return of Investment:</b>          Other Type of Payment</p>	<p><b>Estimated Project Cost:</b> USD 96.60 Million</p> <p><b>Financial Feasibility:</b>          IRR : 11.03%          NPV : USD 3.50 Million</p> <p><b>Estimated Concession Period:</b> 15 years</p>

Indicative Project Schedule						
FBC Q3 2020	Pre-Qualification Q1 2021	Request for Proposal Q2 2021	Bid Award Q3 2021	Agreement Signing Q4 2021	Financial Close Q1 2022	Construction Q1 2022

**Project Status : Outline Business Case**



## Project Digest

<b>Project Title</b>	<b>Relocation Of Correctional Facility From City Downtown To Outskirt</b>
<b>Government Contracting Agency</b>	Minister of Law and Human Right
<b>Implementing Unit</b>	Directorate General of Correctional Facility
<b>Preparation Agency</b>	1. Directorate General of Correctional Facility 2. Ministry of National Development Planning
<b>Project Cost</b>	USD 96.60 Million
<b>Estimated Concession Period</b>	15 Years
<b>Location</b>	Cempaka Putih, Central Jakarta

### 1. Project Picture (Map and/or Illustration of Project)



**Figure 1 – Birds Eye View of Salemba Correctional Facility**

### 2. The Opportunity

#### 2.1. Project Background

The project ‘The transfer of prison technical prison units from the center of the city to the outskirts aims to reduce overcrowding. In the January-January period of 2017, the average number of assisted people around 1,300 people has exceeded the capacity of the prison for just 572 people (an average over 130% capacity level). As can be seen in the following table.

No	Period	Prisoner	Capacity	%	Over Capacity
1	January	1,300	572	227%	127%
2	February	1,334	572	233%	133%
3	March	1,368	572	239%	139%
4	April	1,310	572	229%	129%
5	May	1,349	572	236%	136%
6	June	1,380	572	241%	141%

Source: system database pemasyarakatan, smslap.ditjenpas.go.id, 2017

Also, along with the development of urban areas in Jakarta, there is a mismatch of placement of buildings with the General Spatial Plan (RUTR) in each area located in the middle of urban areas will indirectly affect the security and order in prison Salemba.

## **2.2. Project Description**

The relocation of the correctional facility in Salemba that is located in Central Jakarta : (i) to solve the overcapacity problem in Salemba's prison; (ii) current prison condition is no longer appropriate with the DKI Jakarta Spatial Plan; (iii) to accommodate the Government's budget constraint for building prisons.

At first, the plan was to relocate the facility to Ciangir on an area of 30,000 m<sup>2</sup> which could accommodate 5,000 prisoners, with medium security and the open camp system is needed. But, due to prolonged asset transfer issue, the Ministry of Law and Human Rights as the GCA has decided to relocate to other alternative location that is already owned by the GCA. The location that is considered are:

1. 20 ha land in Ngajum Malang owned by Malang Correctional Facility (Class I)
2. 24 ha land in Bojonegoro owned by Bojonegoro Correctional Facility (Class IIA)
3. 100 ha land in Kendal owned by Kendal Open Correctional Facility (Class IIB)
4. 6 ha land in Pasir Jambu, Bogor Regency owned by Bogor Correctional Facility (Class IIA)

Final decision regarding the location will be decided after Final Business Case Study.

The relocation of the correctional facility in Salemba that is located in Central Jakarta will be bundled with the development of ex-correctional facility in Salemba by commercial area, based on Presidential Regulation, 38/2015, clause 5, point 4, for increasing the feasibility of a PPP and/ or providing additional benefits to society, a PPP may involve activities for the provision of commercial facilities.

## **2.3. Project Objectives**

The objectives of Correctional Facility Relocation is as follows:

- Reduced density of the inhabitants Salemba breath;
- Solution non-conformity with the spatial plan and environmental tone of the downtown area of Jakarta;
- Development of industrial based penitentiaries with minimum security concept;
- Accommodate government budgetary constraints in the construction of the correctional facility;
- Determination of former Salemba correctional facility land with office, commercial and residential development;
- Implementation of government programs with alternative sources of financing is the scheme of public-private partnership.

## **3. Business Entity's Scope of Work**

Forms of cooperation between the Ministry of Law and Human Right with Business Entities has entered the preparation of OBC phase. Cooperation opportunity available for this project is advisory transactions, bidders, and investors.

#### **4. Technical Specification**

Utilization of land in former Salemba Correctional Facility:

- 1) Land Area +/- 4.2 hectares
- 2) Preservation of cultural heritage buildings on the front of the ex-correctional facility
- 3) Office activities
- 4) Residential activities
- 5) Commercial activities

#### **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

- The utilization of Salemba's former prison/prison land is an activity that required Environmental Impact Assessment.
- Preparation of Environmental Impact Assessment and traffic impact analysis documents can be done simultaneously.
- The plan for construction needs to take into account the general regulation of zoning regulations for the designated settlement areas as contained in the RTRW (Spatial Planning)

#### **6. Land Acquisition and Resettlement Action Plan**

More detailed about this matter will be provided in subsequent studies.

#### **7. Project Cost Structure**

Estimated Project Cost		USD 96.60 Million
Indicative Debt to Equity Ratio		
-	Debt Level	70%
-	Equity Level	30%
IRR		11.03%
NPV		USD 3.50 Million

#### **8. Government Support and Guarantee**

Government support and government guarantee will be determined in the Final Business Case.

#### **9. Contact Information**

Name : Dodot Adikoeswanto

Position : Director of information technology and Cooperation Ministry of Law and Human Rights

Phone : +62-21-3857615

Email : tu.infokom@gmail.com

# **UNDER PREPARATION PROJECTS**



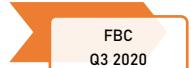
**Public Housing:**

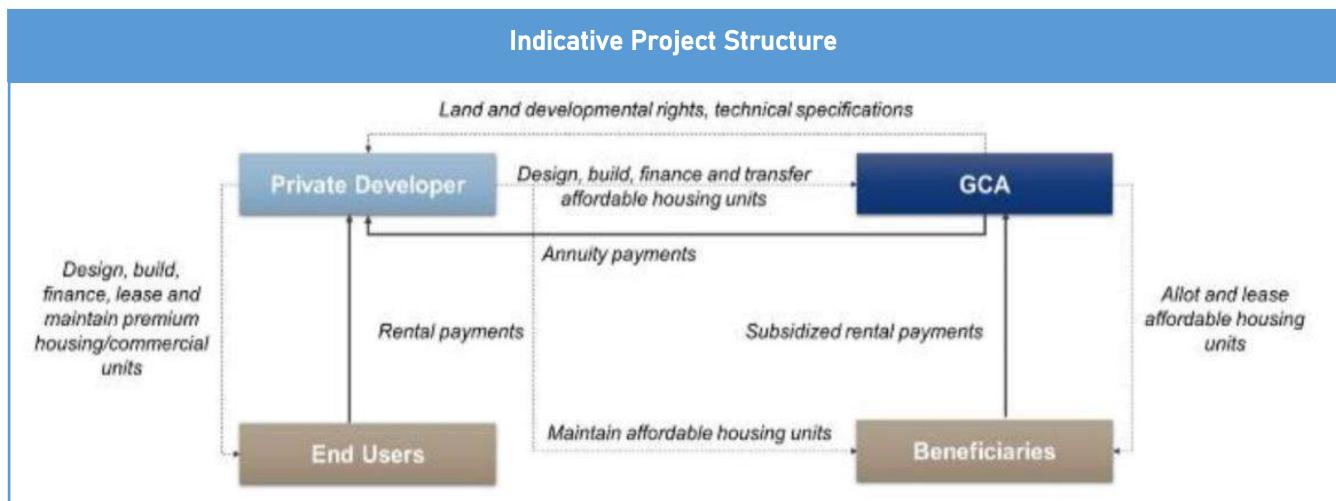
- 1. Bina Harapan Cisaranten  
Housing**

## BINA HARAPAN CISARANTEN HOUSING

Location : Bandung, West Java Province

Sector : Public Housing	Sub-Sector : Apartmen/Flats
	<b>Description:</b> Development of affordable housing plus commercial exploitation on a land parcel of 3.7 Hectares (under calculation) comprising of four apartment towers of 20 floors each, with an approximate potential of 2,000 housing units.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing	<b>Estimated Project Cost:</b> 79.85 Million USD (under review)
<b>Type of PPP:</b> Solicited	<b>Financial Feasibility:</b> IRR : under calculation NPV : under calculation
<b>Return of Investment:</b> User Charge	<b>Estimated Concession Period:</b> 30 years

Indicative Project Schedule						
 FBC Q3 2020	 Pre-Qualification Q1 2021	 Request for Proposal Q2 2021	 Bid Award Q3 2021	 Agreement Signing Q4 2021	 Financial Close Q1 2022	 Construction Q2 2022
<b>Project Status:</b> Outline Business Case						



## Project Digest

Project Title	Bina Harapan Cisaranten Housing
Government Contracting Agency	Minister of Public Works and Housing Directorate General of Infrastructure Financing for Public Works and Housing
Preparation Agency	Directorate General of Infrastructure Financing for Public Works and Housing; World Bank and team
Project Cost	USD 79.85 million (under review)
Estimated Concession Period	30 years (estimated)
Location	Komplek Pusjatan. Jl. AH. Nasution, Bandung City, West Java

### 1. Project Picture (Map and/or Illustration of Project)

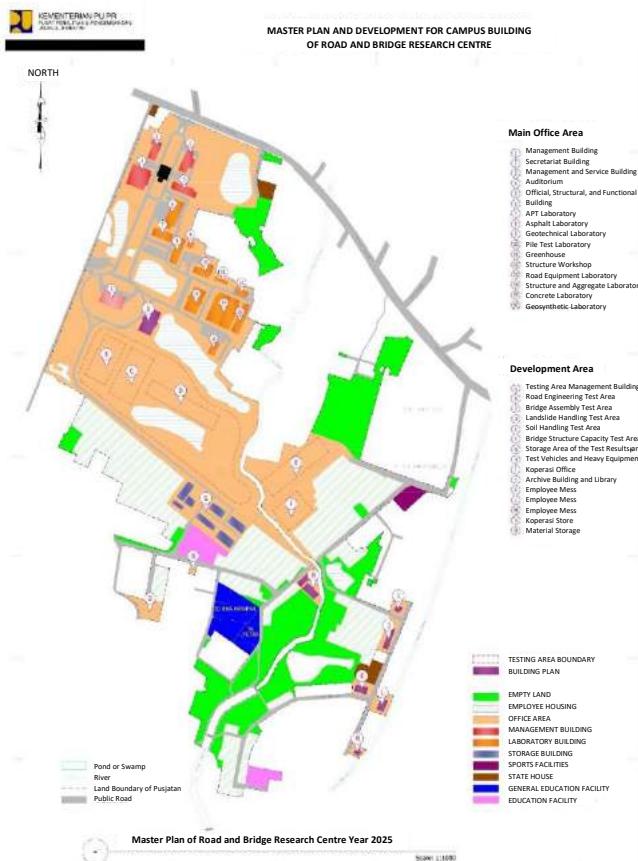


Figure 1 – Masterplan of Cisaranten Housing Complex

### 2. The Opportunity

#### 2.1. Project Background

Indonesia is undergoing a rapid urbanization. As per “Project Appraisal Document of IBRD’s National Affordable Housing Program project”, the country’s cities are growing at a rate of 4.1% per year between years 2000 to 2010, faster than other Asian countries (compared to 3.8

percent in China, 3.1 percent in India and 2.8 percent in Thailand). In 2012, the urban population was 52% of the total population and by 2025, nearly 68% of the Indonesians will be living in cities. Approximately 18 million of the 21 million jobs created between 2001 and 2011 were in urban areas, marking a major shift of the employment base toward cities.

As more people transition to urban areas, well-planned urbanization and increase of the supply of affordable housing in well serviced and well-connected neighborhoods will be critical to enhance living standards. Also, as income rises and existing large metropolitan cities such as Jakarta and Surabaya become saturated, there is a need to provide affordable housing facilities to next big cities. Bandung, which is the third largest city in Indonesia which is growing fast and needs urgent interventions in the development of infrastructure and provision of affordable housing stock for its citizens. This project is proposed by the GCA to meet residential needs of persons in the low-income segment in Bandung.

## **2.2. Project Description**

Ministry of Public Works and Housing preliminary concept for the project has proposed four apartment towers of 20 floors each and an approximate potential for 2,000 housing units.

## **2.3. Project Objectives**

To complement its public housing program and provide a fillip to private participation in affordable housing program, the Ministry of Public Works and Housing (PUPR) has identified one parcel of land namely, Komplek Pusjatan Jl. AH. Nasution in Bandung City, for development of affordable housing units and through a PPP route. Affordable housing project with public housing rental rates would require substantial support from the GCA in the form of availability payments for financial viability through PPP. The project would explore partial commercial exploitation of the site so as to cross subsidize the low rentals and reduce the burden of availability payments for the GCA.

## **3. Business Entity's Scope of Work**

Design – Build – Finance – Operate – Maintain and Transfer.

## **4. Technical Specification**

This housing project falls in the form of a Flat building under the classification of High Rise. Regulations to set minimum service standards for flats are contained in the provisions of Article 80 letter f of Law 20 of 2011. The regulation include specification for Residential Services, Managing Office, Utilities, Cleaning and Waste Management, Information, Security, Safety, Accessibility for Disabled People, Parking, and Maintenance Code.

## **5. Environmental Impact Assessment (EIA/AMDAL) Findings**

Environmental Impact will be assessed during project preparation stage (OBC/FBC).

## **6. Land Acquisition and Resettlement Action Plan**

The land for the project admeasuring 3.7 hectares is owned by PUPR as State-Owned Asset (Barang Milik Negara/BMN). Therefore, no resettlement plan needed.

## **7. Project Cost Structure**

There are three options. The following is project cost structure for option 2, which estimated to get government support (construction and VGF).

<b>Estimated Project Cost</b>	<b>79.85 Million USD (under review)</b>
<b>Indicative Debt to Equity Ratio</b>	
- <b>Debt Level</b>	Under calculation
- <b>Equity Level</b>	Under calculation
<b>IRR</b>	Under calculation
<b>NPV</b>	Under calculation

## **8. Government Support and Guarantee**

Indicative government support will be in the form of Environmental permit, Location permit, design certifications, Availability payment (if any), Land, Rent agreement etc.

## **9. Contact Information**

Name : Adang Sutara

Position : Director of Housing Financing

Phone : 021-7264348

# **ATTACHMENTS**

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# **SUCCESS STORY**



## BALIKPAPAN – SAMARINDA TOLL ROAD

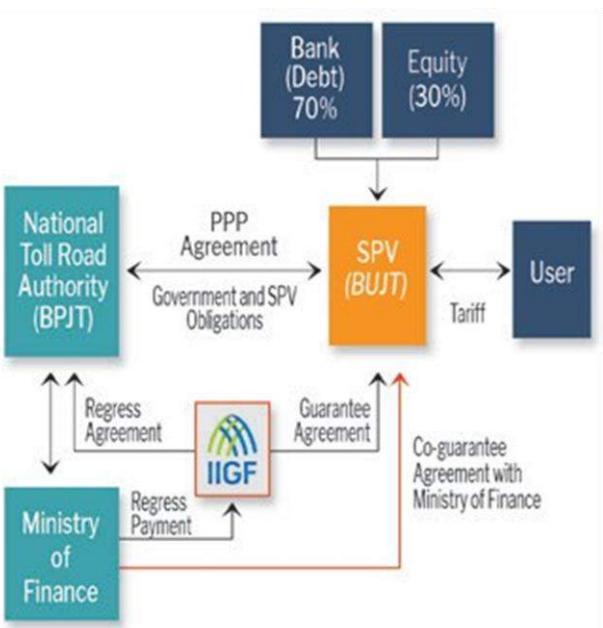
Location : East Kalimantan Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description :</b> Balikpapan-Samarinda toll road (99 km) will connect the two largest cities in East Kalimantan, Balikpapan and Samarinda. This project is divided into two sections, Section 1 consists of Package 1 (25.07 km) and Package 5 (11.09 km) and Section 2 consists of Package 2 (23.26 km), Package 3 (21.90 km) and Package 4 (17.70 km).
<b>Project Status:</b> Project is currently operational	<b>Estimated Project Cost:</b> USD 767.0 Million
<b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)	<b>Financial Feasibility:</b> IRR : 13.87% NPV : USD 260.0 Million
<b>Investor:</b> PT. Jasamarga Balikpapan-Samarinda 1. PT Jasa Marga (Persero) Tbk; 2. PT Wijaya Karya (Persero) Tbk; 3. PT Pembangunan Perumahan (Persero) Tbk; 4. PT Bangun Tjipta Sarana.	<b>Concession Period:</b> 40 years
<b>Financier:</b> Financial close through Contractor Pre-Financing (CPF)	<b>Project Structure</b> <pre> graph TD     BPJT[National Toll Road Authority (BPJT)] &lt;--&gt; SPV[SPV (BUJT)]     BPJT -- "PPP Agreement&lt;br/&gt;Government and SPV Obligations" --&gt; SPV     BPJT -- "Regress Agreement" --&gt; MoF[Ministry of Finance]     SPV -- "Tariff" --&gt; User[User]     SPV -- "Regress Payment" --&gt; MoF     IIGF[IIGF] -- "Guarantee Agreement" --&gt; SPV     MoF -- "Co-guarantee Agreement with Ministry of Finance" --&gt; IIGF   </pre>
<b>Indicative Government Support &amp; Guarantee:</b> - Land acquisition risk      - Land fund risk - Tariff adjustment risk    - Ramp up period - Political risk              - Termination risk	
<b>Implementation Schedule:</b> <ol style="list-style-type: none"> <li>Preparation : 2015</li> <li>Land Acquisition : 2016</li> <li>Construction : 2016 - 2019</li> <li>Operation : 2019</li> </ol>	

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## BATANG - SEMARANG TOLL ROAD

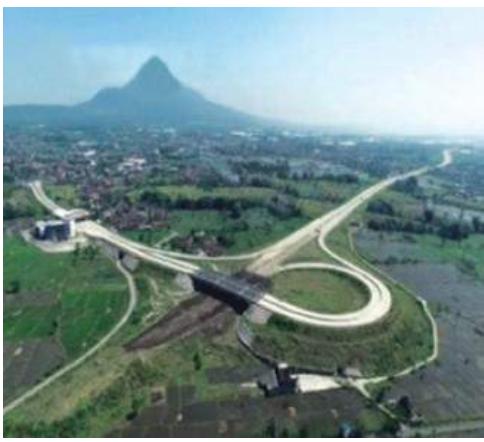
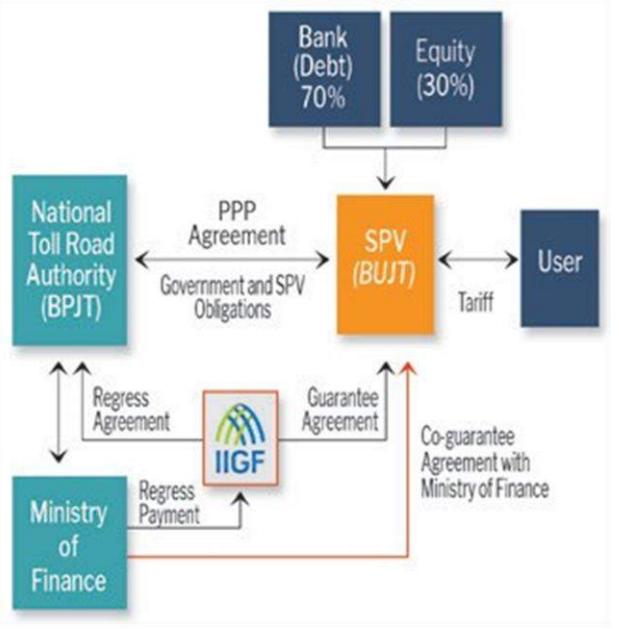
Location : Central Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description :</b> Batang-Semarang Toll Road (75 km) is a section of the Trans-Java Toll Road Network that will connect Jakarta and Surabaya. Batang is a regency on the north coast of Central Java Province while Semarang is the largest and the capital city of Central Java Province.</p>
	<p><b>Estimated Project Cost:</b> USD 850.0 Million</p>
	<p><b>Financial Feasibility:</b> IRR : 13.70% NPV : USD 230.0 Million</p>
	<p><b>Concession Period:</b> 45 years</p>
<p><b>Project Status :</b> Project is currently operational</p> <p><b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)</p> <p><b>Investor:</b> PT. Jasamarga Semarang-Batang 1. PT Jasa Marga (Persero) Tbk; 2. PT Waskita Toll Road.</p> <p><b>Financier:</b> Financial close through Contractor Pre-Financing (CPF)</p> <p><b>Indicative Government Support &amp; Guarantee:</b> - Land acquisition risk    - Land fund risk - Tariff adjustment risk - Political risk</p> <p><b>Implementation Schedule:</b> 1. Preparation : 2016 2. Land Acquisition : 2016 3. Construction : 2016 – 2018 4. Operation : 2019</p>	<p><b>Project Structure</b></p> 

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## PANDAAN-MALANG TOLL ROAD

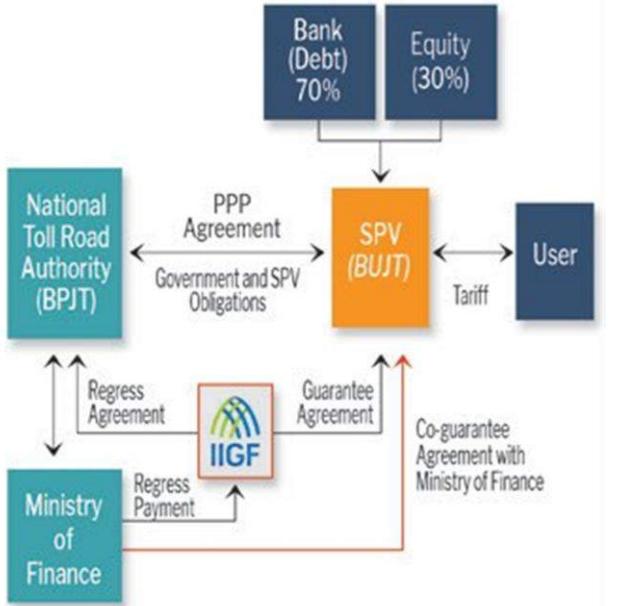
Location : East Java Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> Pandaan - Malang toll road is designed to improve connectivity in the region. In addition, the toll road is expected to facilitate industrial transportations from Pandaan to Malang which are connected directly to Surabaya, and vice versa.
	<b>Estimated Project Cost:</b> USD 461.0 Million
	<b>Financial Feasibility:</b> IRR : 13.81% NPV : USD 99.0 Million
<b>Project Status:</b> Project is currently operational	<b>Concession Period:</b> 35 years
<b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)	
<b>Investor:</b> PT. Jasamarga Pandaan Malang 1. PT Jasa Marga (Persero) Tbk; 2. PT PP (Persero) Tbk; 3. PT Sarana Multi Infrastruktur (Persero).	
<b>Financier:</b> Refinancing with syndication of BNI, BCA, and Bank Mandiri	
<b>Government Support &amp; Guarantee:</b> - Land acquisition risk      - Land fund Risk - Tariff adjustment risk    - Ramp up risk - Political risk               - Termination risk	<b>Project Structure</b>  <pre>graph TD; subgraph Project_Structure [Project Structure]; direction TB; subgraph Top [ ]; direction LR; B[Bank (Debt) 70%] --- E[Equity 30%]; end; B --- SPV[SPV (BUJT)]; E --- SPV; subgraph Bottom [ ]; direction LR; BPJT[National Toll Road Authority (BPJT)] --- SPV; SPV --- User[User]; end; subgraph Bottom2 [ ]; direction TB; MF[Ministry of Finance] --- IIGF[IIGF]; IIGF --- SPV; end; B --- PPP[PPP Agreement Government and SPV Obligations]; PPP --- BPJT; PPP --- SPV; SPV --- Tariff[Tariff]; Tariff --- User; BPJT --- Regress[Regress Agreement]; Regress --- MF; MF --- Regress_Payment[Regress Payment]; Regress_Payment --- IIGF; IIGF --- Guarantee[Guarantee Agreement]; Guarantee --- Co_Guarantee[Co-guarantee Agreement with Ministry of Finance]; Co_Guarantee --- User;</pre>
<b>Implementation Schedule:</b> 1. Preparation : 2015 2. Land Acquisition : 2016 - 2017 3. Construction : 2017 - 2019 4. Operation : 2019	

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
bpjt@pu.go.id or investasi.bpjt@gmail.com

## JAKARTA - CIKAMPEK II ELEVATED TOLL ROAD

Location : Jakarta and West Java Province

Sector : Road	Sub-Sector : Toll Road
 <p>High Speed Train (HST) Project</p> <p>Jakarta - Cikampek II Elevated Toll Road Project</p> <p>Light Rail Transit (LRT) Project</p>	<p><b>Description :</b> The project is an elevated 36.4 km toll road to be built over the existing Jakarta - Cikampek toll road, which is being operated by PT Jasa Marga. The Jakarta-Cikampek road is part of the Trans-Java toll road network connecting Jakarta and Surabaya. The existing road's capacity has already been reached, but there are limitations to widening it thus the proposed solution is to expand the road's capacity by building over it.</p> <p><b>Estimated Project Cost:</b> USD 1,249.0 Million</p>
<p><b>Project Status :</b> Project is currently operational</p> <p><b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)</p> <p><b>Investor:</b> PT. Jasamarga Jalan Layang Cikampek 1. PT Jasa Marga (Persero) Tbk; 2. PT Ranggi Sugiron Perkasa.</p> <p><b>Financier:</b> Syndication of bank on investment credit</p> <p><b>Government Support &amp; Guarantee:</b> - Tariff adjustment risk - Political risk - Termination Risk</p> <p><b>Implementation Schedule:</b> 1. Preparation : 2015 2. Land Acquisition : 2016 3. Construction : 2017 - 2019 4. Operation : 2019</p>	<p><b>Financial Feasibility:</b> IRR : 12.66% NPV : USD 104.0 Million</p> <p><b>Concession Period:</b> 45 years</p>
	<p><b>Project Structure</b></p> 

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## MANADO-BITUNG TOLL ROAD

Location : North Sulawesi Province

### Sector : Road



### Sub-Sector : Toll Road

#### Description:

Manado-Bitung toll road is one of the longest in Northern Sulawesi connecting from Manado City to Bitung City, approximately 39.9 km in length.

**Estimated Project Cost:** USD 396.0 Million

#### Financial Feasibility:

IRR : 12.23%

NPV : USD 13.7 Million

**Concession Period:** 40 years

#### Project Status:

Project is currently under construction

#### Government Contracting Agency:

BPJT (Indonesia Toll Road Authority)

#### Investor:

PT. Jasamarga Manado Bitung

1. PT Jasa Marga (Persero) Tbk;
2. PT Wijaya Karya (Persero) Tbk;
3. PT Pembangunan Perumahan (Persero) Tbk.

#### Financier:

Refinance BNI, BCA, Bank Mandiri and PT SMI

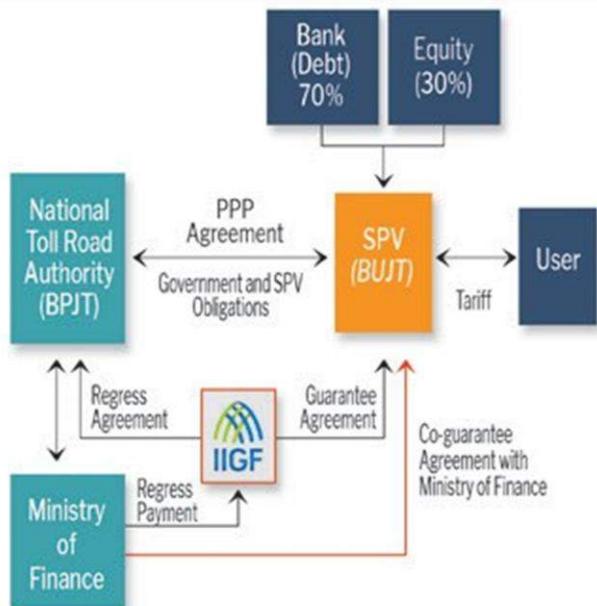
#### Government Support & Guarantee:

- |                          |                    |
|--------------------------|--------------------|
| - Land acquisition risk  | - Land fund Risk   |
| - Tariff adjustment risk | - Ramp up risk     |
| - Political risk         | - Termination risk |

#### Implementation Schedule:

1. Preparation : 2015
2. Land Acquisition : 2016 - 2017
3. Construction : 2017 - 2019
4. Operation : 2019

### Project Structure



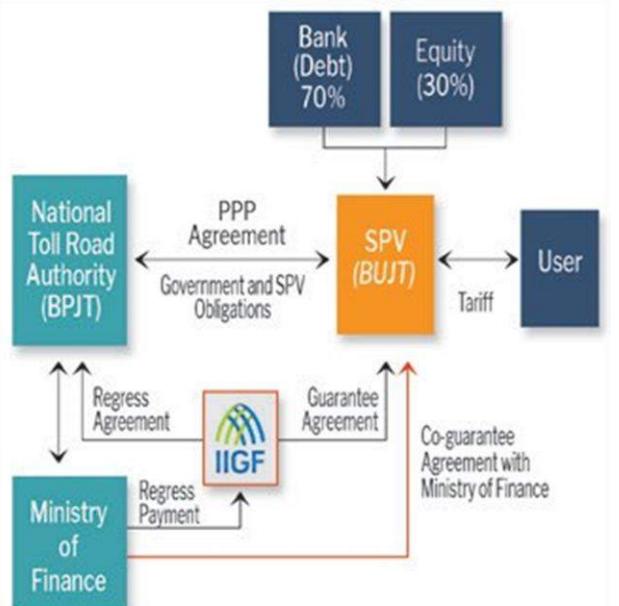
Contact Person : Denny Firmansyah (Head of Investment Division)

+6221-7258063

[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## CILEUNYI – SUMEDANG – DAWUAN TOLL ROAD

Location : West Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b> The Cileunyi – Sumedang – Dawuan Toll Road project will provide direct access for transporting agricultural and manufacturing goods as well as services produced from these areas to the port city of Cirebon. This toll road is urgently required to shift some of the development to the east side of Bandung.</p>
	<p><b>Estimated Project Cost:</b> USD 617.9 Million</p>
	<p><b>Financial Feasibility:</b> IRR : 13.11% NPV : USD 17.9 Million</p>
<p><b>Project Status:</b> Project is currently under construction</p>	<p><b>Concession Period:</b> 40 years</p>
<p><b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)</p>	
<p><b>Investor:</b> PT Citra Karya Jabar Tol 1. PT. Citra Marga Nusaphala Persada Tbk.; 2. PT. Waskita Toll Road; 3. PT. Pembangunan Perumahan (Persero); 4. PT. Brantas Abipraya (Persero); 5. PT. Jasa Sarana.</p>	
<p><b>Government Support &amp; Guarantee:</b> - Guarantee by IIGF</p>	<p><b>Project Structure</b></p> 
<p><b>Implementation Schedule:</b> 1. Preparation : 2017 2. Land Acquisition : 2017 – 2019 3. Construction : 2017 – 2019 4. Operation : 2019</p>	

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## SERANG – PANIMBANG TOLL ROAD

Location : Banten Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b> Serang – Panimbang Toll Road is located in Banten Province where the toll reach from Jakarta to Tanjung Lesung Special Economic Zone. Furthermore, one of the attractive points for the development of this toll road is that it will have tremendous facilities, such as the development of residential areas and commercial areas along the corridor.</p>
<p><b>Project Status:</b> Project is currently under construction</p>	<p><b>Estimated Project Cost:</b> USD 391.6 Million</p>
<p><b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)</p>	<p><b>Financial Feasibility:</b> IRR : 13.96% NPV : USD 39.1 Million</p>
<p><b>Investor:</b> PT Wijaya Karya Serang Panimbang 1. PT Wijaya Karya (Persero); 2. PT PP (Persero) Tbk; 3. PT Jababeka Infrastruktur.</p>	<p><b>Concession Period:</b> 40 years</p>
<p><b>Financier:</b> Contractor Pre-Financing (PT WIKA &amp; PT PP)</p>	<p><b>Project Structure</b></p> <pre> graph TD     BPJT[National Toll Road Authority (BPJT)] &lt;--&gt; SPV[SPV (BUJT)]     SPV &lt;--&gt; User[User]     SPV -- Tariff --&gt; User     BPJT -- "Government and SPV Obligations" --&gt; SPV     SPV -- Regress Payment --&gt; MoF[Ministry of Finance]     IIGF[IIGF] -- "Guarantee Agreement" --&gt; SPV     IIGF -- "Co-guarantee Agreement with Ministry of Finance" --&gt; MoF     Bank[Bank (Debt) 70%] --&gt; SPV     Equity[Equity (30%)] --&gt; SPV   </pre>
<p><b>Government Support &amp; Guarantee:</b> - Guarantee by IIGF - Government support (in kind)</p>	
<p><b>Implementation Schedule:</b> 1. Preparation : 2016 2. Land Acquisition : 2017 3. Construction : 2019 4. Operation : 2020</p>	

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## SERPONG-BALARAJA TOLL ROAD

Location : Banten Province

### Sector : Road



### Sub-Sector : Toll Road

#### Description:

Serpong-Balaraja Toll (30 km) is part of the Jabodetabek toll road network. This toll road is located in Banten Province and will support rapid development in that area.

**Estimated Project Cost:** USD 464.0 Million

#### Financial Feasibility:

IRR : 15.89%

NPV : USD 231.0 Million

**Concession Period:** 40 years

#### Project Status:

Project is currently under construction

#### Government Contracting Agency:

BPJT (Indonesia Toll Road Authority)

#### Investor:

PT. Trans Bumi Serbaraja

1. PT Bumi Serpong Damai;
2. PT Astratel Nusantara;
3. PT Transindo Karya Investama;
4. PT Sinar Usaha Mahitala.

#### Financier:

Syndication between PT Bank Mandiri, PT Bank BNI and PT SMI

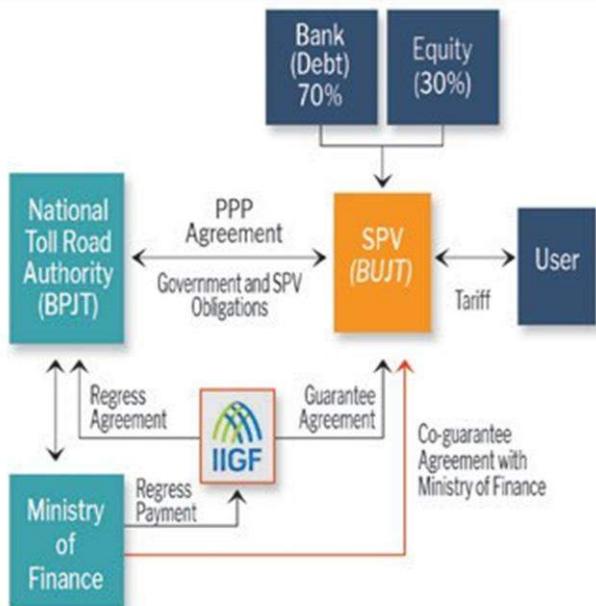
#### Government Support & Guarantee:

- Land acquisition risk - Political risk
- Tariff adjustment risk

#### Implementation Schedule:

1. Preparation : 2015
2. Land Acquisition : 2016
3. Construction : 2016 - 2020
4. Operation : 2020

### Project Structure



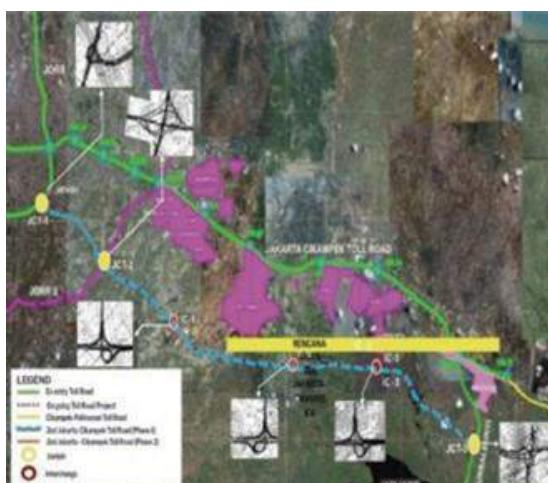
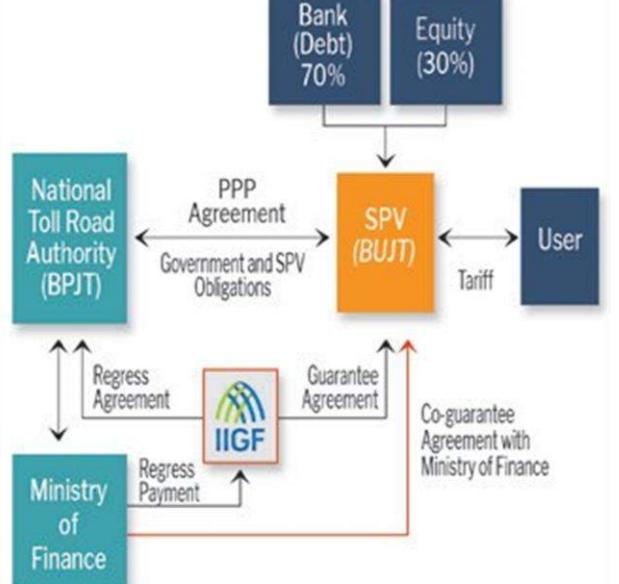
Contact Person : Denny Firmansyah (Head of Investment Division)

+6221-7258063

[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## JAKARTA - CIKAMPEK II SOUTH TOLL ROAD

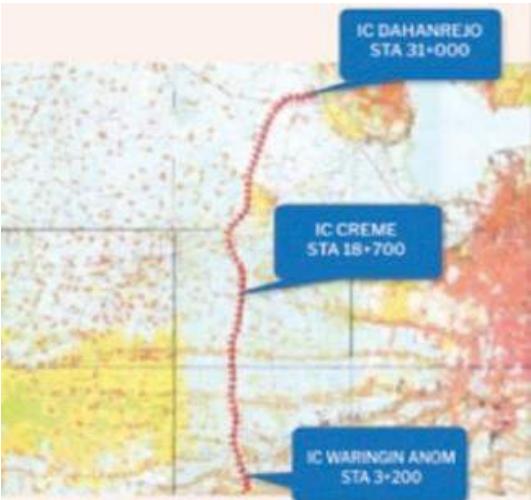
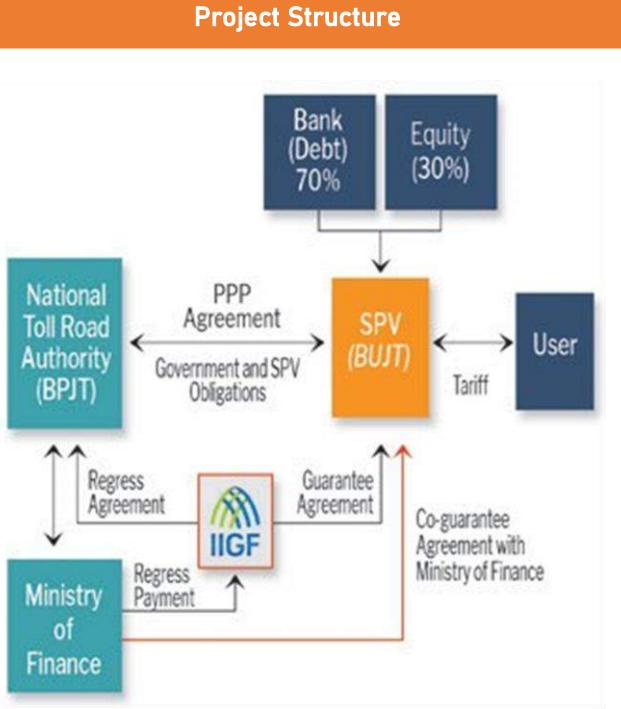
Location : Jakarta and West Java Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> Jakarta - Cikampek II South is a toll extending 36.4 km. Traffic volume through the Jakarta-Cikampek toll road capacity has exceeded with the V/C ratio high of 1.51. The Corridor plan of this toll road section is located in the administrative area of the West Java Province, namely: the city of Bekasi, Bogor Regency, Bekasi Regency, Karawang Regency, and Purwakarta Regency.
<b>Project Status:</b> Project is currently under construction	<b>Estimated Project Cost:</b> USD 1,718.8 Million
<b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)	<b>Financial Feasibility:</b> IRR : 11.17% NPV : USD 45.9 Million
<b>Investor:</b> PT Jasamarga Japek Selatan 1. PT Jasa Marga (Persero) Tbk; 2. PT. Wiranusantara Bumi	<b>Concession Period:</b> 35 years
<b>Financier:</b> Refinancing with syndication of BNI, BCA, and Bank Mandiri	<b>Project Structure</b> 
<b>Government Support &amp; Guarantee:</b> - Government Guarantee by IIGF	
<b>Implementation Schedule:</b> 1. Preparation : 2017 2. Land Acquisition : 2018 - 2019 3. Construction : 2018 - 2019 4. Operation : 2020	

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
bpjt@pu.go.id or investasi.bpjt@gmail.com

## KRIAN-LEGUNDI-BUNDER-MANYAR TOLL ROAD

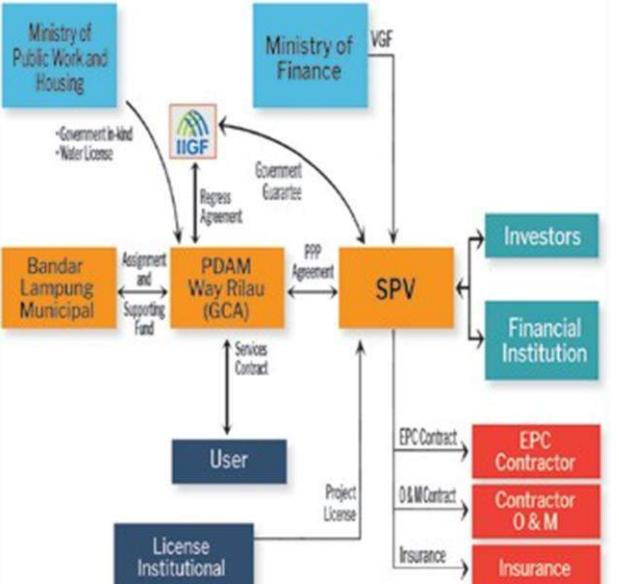
Location : East Java Province

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b> Part of the Trans-Java Toll Road located in East Java with length at approximately 38.29 km from Krian to Manyar. One of the attractive points for development of this toll road is that it will have tremendous facilities, such as development of residential areas and commercial areas along the corridor.</p>
	<p><b>Estimated Project Cost:</b> USD 940.0 Million</p>
	<p><b>Financial Feasibility:</b> IRR : 14.59% NPV : USD 287.0 Million</p>
<p><b>Project Status:</b> Project is currently under construction</p> <p><b>Government Contracting Agency:</b> BPJT (Indonesia Toll Road Authority)</p> <p><b>Investor:</b> PT. Waskita Bumi Wira 1. PT Waskita Toll Road; 2. PT Energi Bumi Mining; 3. PT Panca Wira Usaha Jawa Timur</p> <p><b>Financier:</b> Financial close through Contractor Pre-Financing (CPF)</p> <p><b>Government Support &amp; Guarantee:</b> - Project authorization risk    - Payment Risk - Construction risk</p> <p><b>Implementation Schedule:</b> 1. Preparation : 2015 2. Land Acquisition : 2016 3. Construction : 2016 – 2019 4. Operation : 2020</p>	<p><b>Concession Period:</b> 45 years</p> <p><b>Project Structure</b></p> 

Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## DEVELOPMENT OF BANDAR LAMPUNG WATER SUPPLY SYSTEM

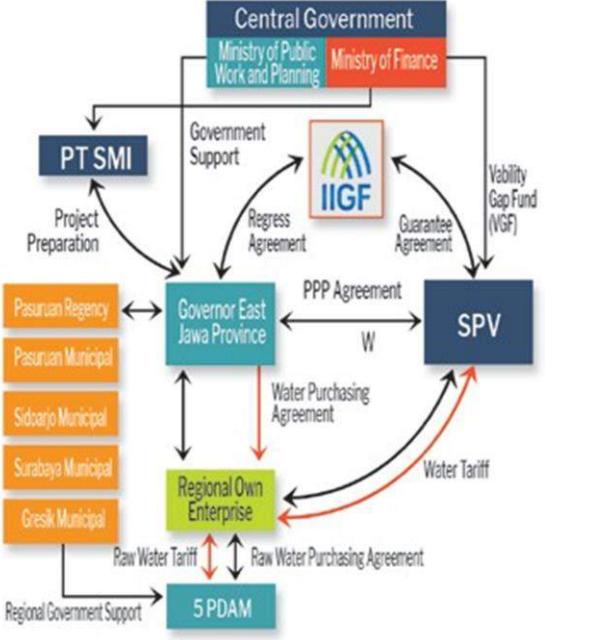
Location : Bandar Lampung, Lampung Province

Sector : Drinking Water	Sub-Sector : Water Supply System												
 <p><b>Sector : Drinking Water</b></p> <p>The map illustrates the extensive network of water transmission pipelines in Bandar Lampung. Key areas labeled include KAB. PESAWARAN, KAB. LAMPUNG SELATAN, KAB. PESAWARAN, TELUK LAMPUNG, and several districts. The network is color-coded: light blue for the main transmission lines, darker blue for distribution networks, and red for specific areas of focus or development.</p>	<p><b>Description:</b> The Project scope includes the financing, construction, operation and maintenance of water supply systems, covering raw water intake with capacity of 825 lps; water treatment plant with production capacity of 750 lps; ±22 km of Ø 1,000 mm water transmission pipeline; reservoir with capacity of ±10,000 m<sup>3</sup>; and the development of parts of distribution network with pumping system (primary and secondary distribution network).</p>												
<p><b>Project Status:</b> Project is currently under construction</p> <p><b>Investor:</b> 1. Bangun Cipta Contractor; 2. Bangun Tjipta Sarana.</p> <p><b>Government Support &amp; Guarantee:</b> - Viability Gap Fund from Ministry of Finance - Government Guarantee by IIGF</p> <p><b>Implementation Schedule:</b></p> <table border="0"> <tr> <td>1. Preparation</td> <td>:</td> <td>2017</td> </tr> <tr> <td>2. Land Acquisition</td> <td>:</td> <td>2018</td> </tr> <tr> <td>3. Construction</td> <td>:</td> <td>2019</td> </tr> <tr> <td>4. Operation</td> <td>:</td> <td>2020</td> </tr> </table>	1. Preparation	:	2017	2. Land Acquisition	:	2018	3. Construction	:	2019	4. Operation	:	2020	<p><b>Estimated Project Cost:</b> USD 82.6 Million</p> <p><b>Financial Feasibility:</b> IRR : 16% NPV : USD 20.7 Million</p> <p><b>Concession Period:</b> 25 years</p>
1. Preparation	:	2017											
2. Land Acquisition	:	2018											
3. Construction	:	2019											
4. Operation	:	2020											
<p><b>Project Structure</b></p>  <pre> graph TD     MPWH[Ministry of Public Work and Housing] -- "Assignment and Supporting Fund" --&gt; PDAM     MPWH -- "-Government I-Held -Water License" --&gt; PDAM     MPWH -- "Regress Agreement" --&gt; IIGF[IIGF]     IIGF -- "Government Guarantee" --&gt; PDAM     IIGF -- "VGF" --&gt; SPV     MF[Ministry of Finance] -- "PPP Agreement" --&gt; PDAM     MF -- "VGF" --&gt; SPV     PDAM &lt;--&gt; SPV     PDAM -- "Services Contract" --&gt; User     SPV -- "Project License" --&gt; User     SPV -- "EPC Contract" --&gt; EPC[EPC Contractor]     SPV -- "D&amp;M Contract" --&gt; DMO[Contractor O &amp; M]     SPV -- "Insurance" --&gt; Insurance[Insurance]     Investors[Investors] --&gt; SPV     FI[Financial Institution] --&gt; SPV     LI[License Institutional] -- "User" --&gt; SPV     </pre>													

Contact Person : Supardji (Technical Director of Way Rilau Regional Water Company)  
+62-721-483855  
kpbuspam@pdamwayrilau.com

## DEVELOPMENT OF UMBULAN WATER SUPPLY SYSTEM

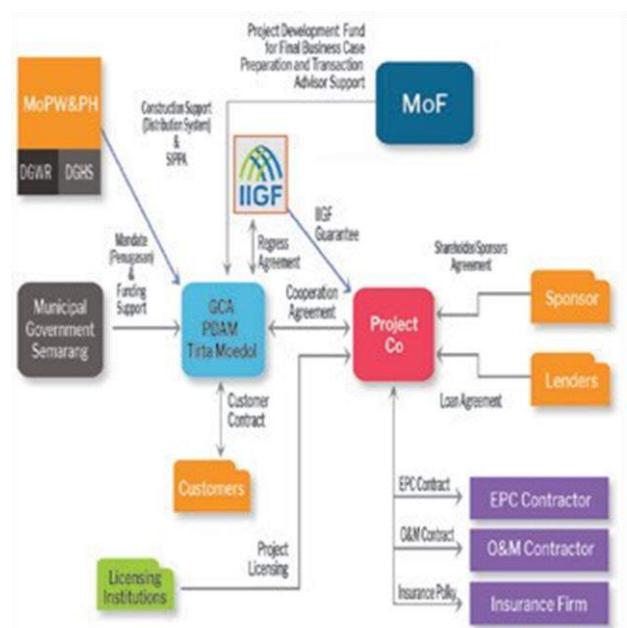
Location : East Java Province

Sector : Drinking Water	Sub-Sector : Water Supply System
	<b>Description:</b> The Umbulan Water Supply Project aims to increase the water supply capacity to meet the demand in the East Java Province. The capacity of the drinking water is 4,000 lps at Pasuruan Regency, Pasuruan City, Sidoarjo Regency, Surabaya City, Gresik Regency, and PTAB (Industrial Area) connecting approximately 320,000 households.
<b>Project Status:</b> Project is currently under construction	<b>Estimated Project Cost:</b> 140.7 Million
<b>Government Contracting Agency:</b> Governor of East Java Province	<b>Financial Feasibility:</b> IRR : 12.09% NPV : USD 34.2 Million
<b>Investor:</b> PT. Meta Adhya Tirta Umbulan	<b>Estimated Concession Period:</b> 25 years
<b>Financier:</b> PT IIF and PT SMI (Persero)	<b>Project Structure</b>  <pre>graph TD; CG[Central Government Ministry of Public Work and Planning Ministry of Finance] --&gt; PTSMI[PT SMI]; CG --&gt; GOEP[Governor East Java Province]; CG --&gt; IIGF[IIGF]; PTSMI --&gt; PP[Governor East Java Province]; PTSMI --&gt; ROE[Regional Own Enterprise]; PTSMI --&gt; SPV[SPV]; GOEP --&gt; PP; GOEP --&gt; ROE; GOEP --&gt; SPV; IIGF --&gt; PP; IIGF --&gt; ROE; IIGF --&gt; SPV; ROE --&gt; SPV; ROE --&gt; 5PDAM[5 PDAM]; ROE --&gt; PP; ROE --&gt; W[W]; ROE --&gt; WP[Water Purchasing Agreement]; ROE --&gt; RT[Water Tariff]; ROE --&gt; RWT[Raw Water Tariff]; ROE --&gt; RPWA[Raw Water Purchasing Agreement]; ROE --&gt; RG[Regional Government Support]; ROE --&gt; RG[Regional Government Support]; 5PDAM --&gt; SPV; 5PDAM --&gt; RWT; 5PDAM --&gt; RPWA; 5PDAM --&gt; RG; SPV --&gt; RWT; SPV --&gt; RPWA; SPV --&gt; RG; SPV --&gt; W; SPV --&gt; RT; SPV --&gt; RG; SPV --&gt; RG; IIGF --&gt; RG; IIGF --&gt; RG; GOEP --&gt; RG; GOEP --&gt; RG; PTSMI --&gt; RG; PTSMI --&gt; RG; CG --&gt; RG; CG --&gt; RG; PP --&gt; RG; PP --&gt; RG; ROE --&gt; RG; ROE --&gt; RG; SPV --&gt; RG; SPV --&gt; RG; W --&gt; RG; W --&gt; RG; RPWA --&gt; RG; RPWA --&gt; RG; RWT --&gt; RG; RWT --&gt; RG; RT --&gt; RG; RT --&gt; RG; RG --&gt; RG;</pre>
<b>Government Support &amp; Guarantee:</b> - VGF from the Ministry of Finance - Financial project support from the Ministry of Public Works and Housing - Financial project support from the Government of East Java - Government Guarantee from IIGF	
<b>Implementation Schedule:</b> 1. Preparation : 2011 - 2016 2. Land Acquisition : 2016 - 2019 3. Construction : 2017 - 2020 4. Operation : 2020	

Contact Person : Ir. Baju Trihaksoro, MM (Head of PRKPCK Department)  
+62-31-8287275  
timsimpulspamumbulan2019@gmail.com

## DEVELOPMENT OF WEST SEMARANG WATER SUPPLY SYSTEM

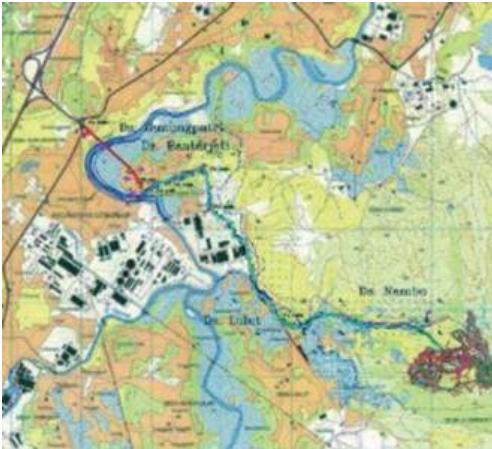
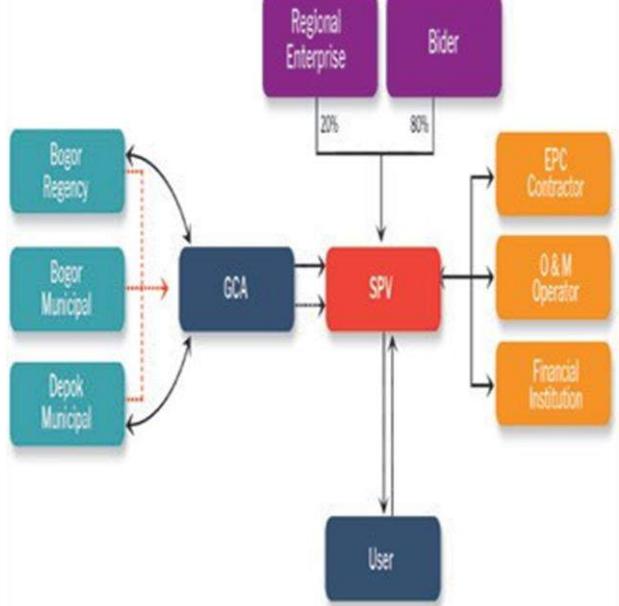
Location : Central Java Province

Sector : Drinking Water	Sub-Sector : Water Supply System
	<b>Description:</b> West Semarang Water Supply project is built with a capacity of 1,000 litres per second. The service area is planned to serve three (3) subdistricts divided into five (5) service zone zones.
<b>Project Status:</b> Project is currently under construction	<b>Estimated Project Cost:</b> USD 28.97 Million
<b>Government Contracting Agency:</b> Tirta Moedal Regional Water Supply Company	<b>Financial Feasibility:</b> IRR : 9.07% NPV : USD 16.08 Million
<b>Investor:</b> PT. Air Semarang Barat: 1. PT Aetra Air Jakarta & 2. PT Medco Gas Indonesia	<b>Concession Period:</b> 27 years (including 2 years construction)
<b>Financier:</b> Bank Central Asia (BCA)	<b>Project Structure</b>  <pre> graph TD     MoF[MoF] -- "Project Development Fund for Final Business Case Preparation and Transaction Advisor Support" --&gt; IIGF[IIGF]     MoF -- "Stakeholders/Sponsors Agreement" --&gt; ProjectCo[Project Co]     MoF -- "Loan Agreement" --&gt; Lenders[Lenders]     IIGF -- "IIGF Guarantee" --&gt; ProjectCo     IIGF -- "Cooperation Agreement" --&gt; ProjectCo     IIGF -- "Rugby Agreement" --&gt; GCA[GCA PDAM, Tirta Moedal]     GCA -- "Customer Contract" --&gt; Customers[Customers]     GCA -- "Project Licensing" --&gt; LicensingInstitutes[Licensing Institutes]     ProjectCo -- "EPC Contract" --&gt; EPCContractor[EPC Contractor]     ProjectCo -- "O&amp;M Contract" --&gt; OandMContractor[O&amp;M Contractor]     ProjectCo -- "Insurance Policy" --&gt; InsuranceFirm[Insurance Firm]     MunicipalGov[Municipal Government Semarang] -- "Construction Support (Distribution System) &amp; SPPN" --&gt; GCA     MunicipalGov -- "Mandate Penyebarluasan" --&gt; GCA     MunicipalGov -- "Funding Support" --&gt; GCA     </pre>
<b>Government Support &amp; Guarantee:</b> <ul style="list-style-type: none"> <li>- Supports from Regional Government</li> <li>- PDF from Ministry of Finance</li> <li>- Supports from the Ministry of Public Works and Housing</li> <li>- Government Guarantee from IIGF</li> </ul>	
<b>Implementation Schedule:</b> <ol style="list-style-type: none"> <li>1. Preparation : 2017</li> <li>2. Land Acquisition : 2019</li> <li>3. Construction : 2019 - 2021</li> <li>4. Operation : 2021</li> </ol>	

Contact Person : E. Yudi Indardo, ST, MPPM, M. Ak (Director of Tirta Moedal Water Supply Company)  
+62-24-8315514  
smgwater@gmail.com

## NAMBO REGIONAL WASTE MANAGEMENT SYSTEM

Location : West Java Province

Sector : Waste Management	Sub-Sector : Waste Management System
	<p><b>Description:</b> The capacity of Nambo waste processing technology is 1,650-1,800 tonnes/day. Targeted facility is to produce some recycled products such as compost, refused derived fuel (RDF) and other recyclable materials.</p>
	<p><b>Estimated Project Cost:</b> USD 44.4 Million</p>
	<p><b>Financial Feasibility:</b> IRR : 13.60% NPV : USD 4.8 Million</p>
	<p><b>Concession Period:</b> 25 years</p>
<p><b>Project Status:</b> Project is currently under construction</p> <p><b>Government Contracting Agency:</b> Governor of West Java</p> <p><b>Investor:</b> PT Jabar Bersih Lestari 1. Consortium of Emsus, Enbiocon, Forcebell, Kun Hwa (Korea) 2. Consortium of PT. Panghegar Energy Indonesia and PT. Jasa Sarana</p> <p><b>Government Support &amp; Guarantee:</b> - Tipping Fee</p> <p><b>Implementation Schedule:</b> 1. Preparation : 2014 2. Land Acquisition : 2015 3. Construction : 2017 - 2020 4. Operation : 2021</p>	<p><b>Project Structure</b></p> 

Contact Person : Ir. Edi Bahtiar H, M.S (Head of Regional Waste Management)  
+62-22-7319782; +62-22-7319735  
pstrdlprovjabar@gmail.com

## CONSTRUCTION OF PALAPA RING WEST PACKAGE

Location : Sumatera and West Kalimantan Region

### Sector : Telecommunication and informatics



### Sub-Sector : Telecommunication Network

#### Description:

Development of fiber optic-based broadband telecommunication network which will connect Riau Province, Riau Islands and the Natuna Island with a total length 2,123 km.

**Estimated Project Cost:** USD 87.6 Million

#### Financial Feasibility:

IRR : 15.08%

NPV : USD 8.6 Million

**Concession Period:** 15 years

#### Project Status:

Project is currently operational

#### Government Contracting Agency:

BAKTI on behalf of Minister of Communication and Informatics

#### Investor:

1. PT. Mora Telematika Indonesia
2. PT Ketrosden Trasmitra

#### Financier:

PT. Bank Mandiri

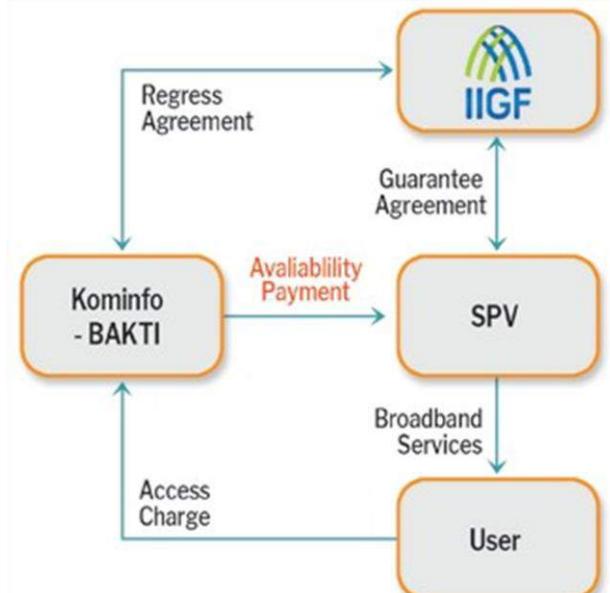
#### Government Support & Guarantee:

- Government guarantee from IIGF

#### Implementation Schedule:

1. Operation : 2018

### Project Structure

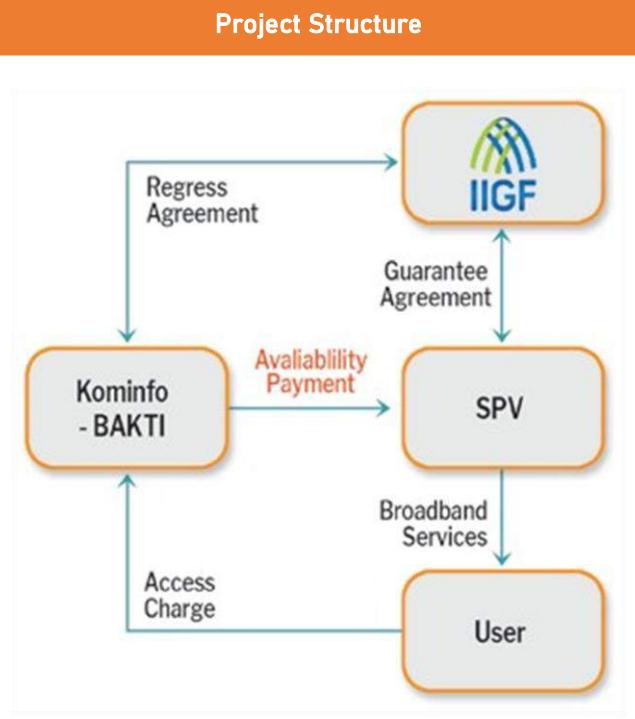


Contact Person

: M. Feriandi Mirza (Head of Infrastructure Backbone Division)  
+62 819 0830 8450  
feriandi.mirza@baktikominfo.id

## CONSTRUCTION OF PALAPA RING CENTRAL PACKAGE

Location : Kalimantan, Sulawesi, and Maluku Region

Sector : Telecommunication and informatics	Sub-Sector : Telecommunication Network
	<p><b>Description:</b> Development of fiber optic-based broadband telecommunication network covering 17 regencies across Kalimantan, Sulawesi, and Maluku. with a total length 3,103 km.</p>
	<p><b>Estimated Project Cost:</b> USD 71.5 Million</p>
	<p><b>Financial Feasibility:</b> IRR : 12.63% NPV : USD 11.5 Million</p>
	<p><b>Concession Period:</b> 15 years</p>
<p><b>Project Status:</b> Project is currently operational</p> <p><b>Government Contracting Agency:</b> BAKTI on behalf of Minister of Communication and Informatics</p> <p><b>Investor:</b> Consortium of Pandawa Lima 1. PT Len Industri (Persero) 2. PT Teknologi Riset Global Investama 3. PT Multi Kontrol Nusantara 4. PT Bina Nusantara Perkasa</p> <p><b>Financier:</b> Syndication of PT. Indonesia Infrastructure Finance (Persero), PT. Bank BNI (Persero), and PT. Sarana Multi Infrastruktur (Persero)</p> <p><b>Government Support &amp; Guarantee:</b> - Government guarantee from IIGF</p> <p><b>Implementation Schedule:</b> 1. Operation : 2018</p>	<p><b>Project Structure</b></p>  <pre>graph TD; IIGF[IIGF] -- "Guarantee Agreement" --&gt; SPV[SPV]; Kominfo[Kominfo - BAKTI] -- "Regress Agreement" --&gt; IIGF; Kominfo -- "Access Charge" --&gt; SPV; SPV -- "Availability Payment" --&gt; Kominfo; SPV -- "Broadband Services" --&gt; User[User]</pre>

Contact Person

: M. Feriandi Mirza (Head of Infrastructure Backbone Division)  
+62 819 0830 8450  
feriandi.mirza@baktikominfo.id

## CONSTRUCTION OF PALAPA RING EAST PACKAGE

Location : East Nusa Tenggara, Maluku and Papua Region

### Sector : Telecommunication and informatics



### Sub-Sector : Telecommunication Network

#### Description:

Development of fiber optic-based broadband telecommunication network covering 35 regencies across East Nusa Tenggara, Maluku, West Papua and remote area in Papua with a total length 7,002 km.

**Estimated Project Cost:** USD 386.5 Million

#### Financial Feasibility:

IRR : 14.30%

NPV : USD 22.8 Million

**Concession Period:** 15 years

#### Project Status:

Project is currently operational

#### Government Contracting Agency:

BAKTI on behalf of Minister of Communication and Informatics

#### Investor:

1. PT. Mora Telematika Indonesia
2. PT Infrastruktur Bisnis Sejahtera
3. PT Inti Bangun Sejahtera
4. PT Smart Telecom

#### Financier:

Syndication of PT. Bank BNI ICBC Indonesia, Bank Papua, Bank Maluku Malut and Bank Sulsebar.

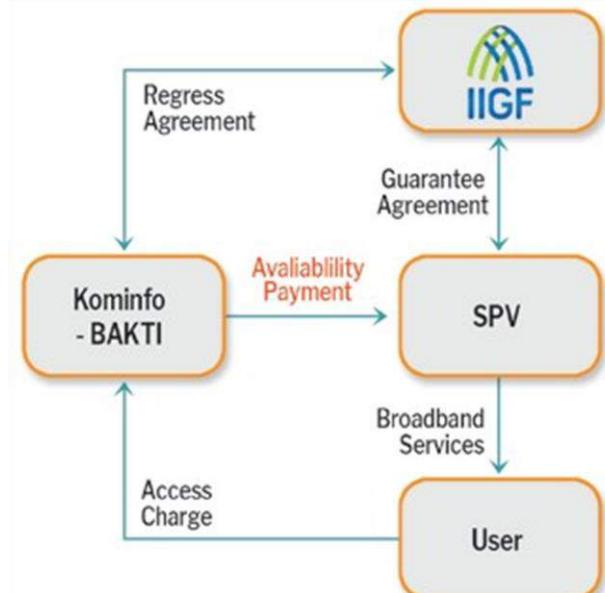
#### Government Support & Guarantee:

- Government guarantee from IIGF

#### Implementation Schedule:

1. Operation : 2019

### Project Structure



Contact Person

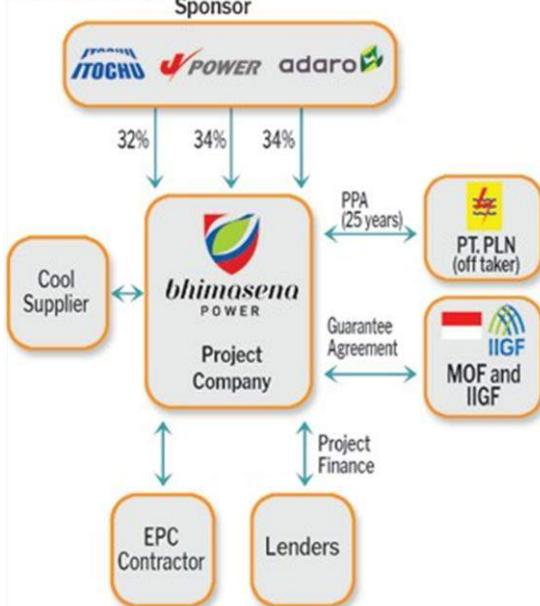
: M. Feriandi Mirza (Head of Infrastructure Backbone Division)

+62 819 0830 8450

feriandi.mirza@baktikominfo.id

## CENTRAL JAVA POWER PLANT

Location : Batang, Central Java Province

Sector : Electricity	Sub-Sector : Power Plant
	<b>Description:</b> This project is the development of coal-fired power plant in Batang Regency, Central Java with capacity of 2x1,000 MW. It is considered as the largest PPP electricity project by capacity in Asia.
	<b>Estimated Project Cost:</b> USD 4,200.0 Million
	<b>Financial Feasibility:</b> IRR : 11.12% NPV : USD 938.7 Million
	<b>Concession Period:</b> 25 years
<b>Project Status:</b> Project is currently under construction	
<b>Government Contracting Agency:</b> Indonesia Electricity Company (PT. PLN (Persero))	
<b>Investor:</b> 1. PT. J-Power 2. Adaro Power 3. Itochu Corporation	
<b>Financier:</b> Bank Mandiri	
<b>Government Support &amp; Guarantee:</b> - Land Acquisition - Government Guarantee from IIGF	
<b>Implementation Schedule:</b> 1. Preparation : done 2. Land Acquisition : 2011 3. Construction : 2016 - 2020 4. Operation : 2020	<b>Project Structure</b>  <p>The diagram illustrates the Project Structure. At the top, three investors (Itochu, J-Power, and Adaro) contribute 32%, 34%, and 34% respectively to the Project Company. The Project Company, which is the central entity, has a 25-year Power Purchase Agreement (PPA) with PT.PLN (off-taker). It also has a guarantee agreement with MOF and IIGF. The Project Company interacts with a Cool Supplier, EPC Contractor, and Lenders through Project Finance. The Project Company is also connected to the Sponsor.</p>

Contact Person : Ipung Purwomarwanto (Marketing Manager of Strategic IPP)  
+62-21-7261122

# **ALREADY TENDERED PROJECTS**



## Project Summary

The following list consists of projects that have already been tendered as of June 2020.

No	Project Name	Description	Status
1	Development of Komodo Airport	<p>The purpose of Labuan Bajo Airport is:</p> <ul style="list-style-type: none"> <li>• Empowering tourism in Komodo Island in East Nusa Tenggara Province.</li> <li>• Improving airport performance and services to the passengers and related stakeholders.</li> <li>• Increasing the number of passengers and cargo up to 4 mppa and 3.500 tonnes respectively in 2044.</li> <li>• Expanding national air connectivity.</li> <li>• Supporting local economy.</li> </ul>	Already Tendered (Agreement Signing)
2	Expansion of Hang Nadim International Airport Passenger Terminal	<p>The project is to expand the passenger terminal of Hang Nadim International Airport and designated to handle up to 8 million passengers in 2019.</p> <p>Scope of work:</p> <ul style="list-style-type: none"> <li>• Expansion of Passenger Terminal;</li> <li>• Operation and Maintenance Passenger Terminal; and</li> <li>• Operation and Maintenance Cargo Terminal.</li> </ul>	Already Tendered (RfP)
3	Development of Makassar – Parepare Railway	<p>The development of 127.2 km railway as part of Trans-Sulawesi project. The objectives are: (i) to accelerate development by increasing the flow of goods and passengers, establish national connectivity, (ii) increase the number of goods transported by train to 1.5 million tonnes, and (iii) achieve the target of railway line of 3,258 km. The project includes the construction of F Segment (Bosowa and Tonasa siding track) and O&amp;M in BCDF Segment.</p>	Already Tendered (Agreement Signing)

No	Project Name	Description	Status
4	Probolinggo – Banyuwangi Toll Road	This project is expected to play an integral part of East Java Road System. It is 172.91 km in length which connected Probolinggo and Banyuwangi, crossing three districts in East Java including Situbondo district. Each district has different potential resources which can be developed further.	Already Tendered (Agreement Signing)
5	Semarang-Demak Toll Road	The proposed project will connect Semarang (Capital of Central Java Province) and city of Demak. This Project has high traffic volume with ±27 km in length. Semarang as a capital town of Central Java Province is well-developed with industrial goods and trading. On the other side, Demak is a region that is rich with natural resources. This project is also integrated with the development of Semarang Sea Wall.	Already Tendered (Agreement Signing)
6	South Sumatera Province Non-Toll Road Preservation	The location of this project is on the East side of South Sumatra Road in Palembang City, namely Srijaya Raya Road, Mayjen Yusuf Singadekane Road, Letjen H. Alamsyah Ratu Perwiranegara Road, Soekarno Hatta Road, Terminal of Alang-alang Lebar Road and Sultan Mahmud Badarudin II Road. The approximate total length of this project will be 29.37 km. Investment return will be paid using the availability payment method.	Already Tendered (RfP)
7	North Penajam Paser – Balikpapan Toll Road Bridge	The construction of the bridge (which functions as a toll road) will connect the North Penajam Paser Regency with Balikpapan City across the Bay of Balikpapan. The North Penajam Paser - Balikpapan Toll Road Bridge will not only eliminate the geographical obstacle between the North Penajam Paser Regency and the Balikpapan City, but also between East Kalimantan and South Kalimantan Provinces.	Already Tendered (PQ)

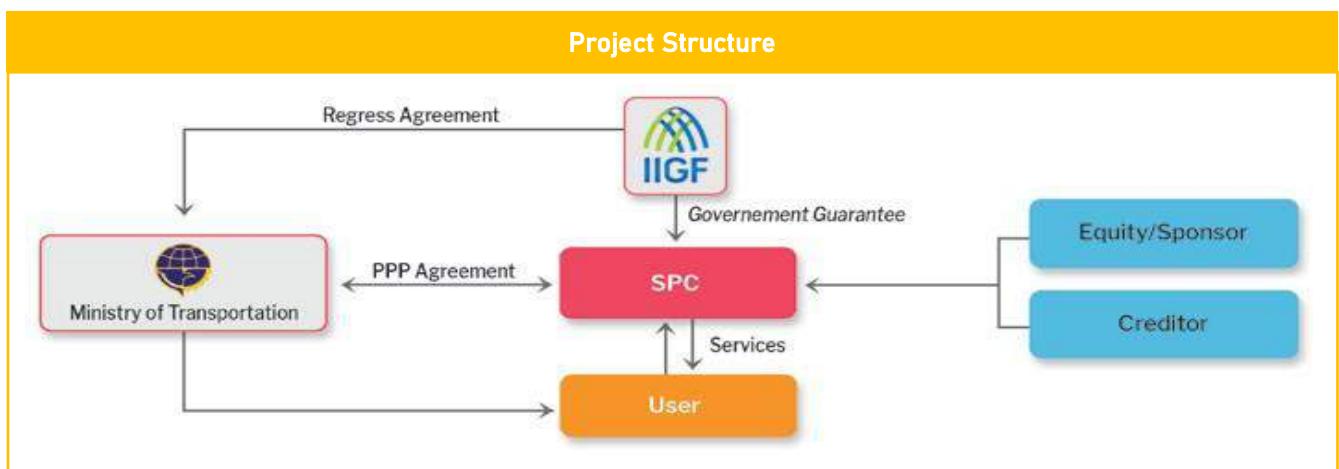
No	Project Name	Description	Status
8	Solo - Yogyakarta - Kulonprogo (NYIA) Toll Road	The development of Solo-Yogyakarta-Kulon Progo (New Yogyakarta International Airport/NYIA) Toll Road is part of the Southern Java Road Network, stretching from Gede Bage in West Java province to Solo in Central Java. The toll road will run for 93.14 km, divided into three sections; Kartasura-Purwomartani, Purwomartani-Gamping, and Gamping-Kulon Progo (NYIA).	Already Tendered (PQ)
9	Yogya-Bawen Toll Road	Yogya-Bawen toll road will connect Semarang-Solo toll road to Yogyakarta. It is planned to reduce heavy traffic on the arterial road. It will also support industrial area in Ungaran-Bawen corridor and Joglosemar (Yoyakarta-Solo-Semarang) tourism area. Furthermore, this project is included in the Indonesia National Strategic Project (PSN).	Already Tendered (PQ)
10	Development of Pekanbaru Water Supply System	The purpose of Pekanbaru Water Supply is to provide reliable drinking water infrastructure and to support economic activities in Pekanbaru City. The project includes rehabilitation and uprating of existing WTP and reservoir to reach 500 lps and construction of a new intake facility, WTP, and reservoir with capacity of 250 lps. With total coverage of 61,000 connections for 6 districts in Pekanbaru.	Already Tendered (RfP)
11	Development of Jatiluhur I Regional Water Supply System (Unsolicited Project)	Jatiluhur I Regional Water Supply system has an outflow of 5,000 lps that will supply Karawang Regency, Bekasi Regency, Bekasi City and DKI Jakarta. The project covers the construction of intake, transmission pipeline, water treatment plant (WTP), and the development of main network.	Already Tendered (PQ)
12	Development of Multifunction Satellite	The Multifunction Satellite Project, called the Satelit Republik Indonesia (SATRIA), designed to have a throughput capacity of 150 Gigabits per second (Gbps), is expected to provide internet services to 150,000 public facilities, including schools and health centers, as well as defense establishments, security administrations and all regional government	Already Tendered (Agreement Signing)

No	Project Name	Description	Status
		offices all over Indonesia. Satellite technology has become a solution to address the gap in broadband internet access in Indonesia.	
13	dr. Zainoel Abidin General Hospital	The Zainoel Abidin General Hospital is a public hospital operated by the Government of Nangroe Aceh Darussalam. Its purpose is to provide healthcare for its citizens. To cope with increasing demand of a better-quality healthcare, developing and upgrading hospital becomes a necessity. With the next development, the hospital will provide excellent health services for people of Nangroe Aceh Darussalam.	Already Tendered (PQ)
14	Development of Gorontalo General Hospital	This project is designed to be the new Type B regional hospital development program on 6.4 ha of land in ex Plaza Limboto, Gorontalo. The investment return for this project most likely to be paid using Availability Payment scheme.	Already Tendered (PQ)
15	Development of Sidoarjo General Hospital	Sidoarjo General Hospital is the second hospital owned by the Government of Sidoarjo Regency which aims to provide health service facilities that will cover the community in the west of Sidoarjo Regency. Sidoarjo General Hospital is planned as a class C hospital. This project scheme is DBFOMT with Availability Payment as the investment return to the SPC.	Already Tendered (PQ)

## DEVELOPMENT OF KOMODO AIRPORT

Location : Labuan Bajo, East Nusa Tenggara Province

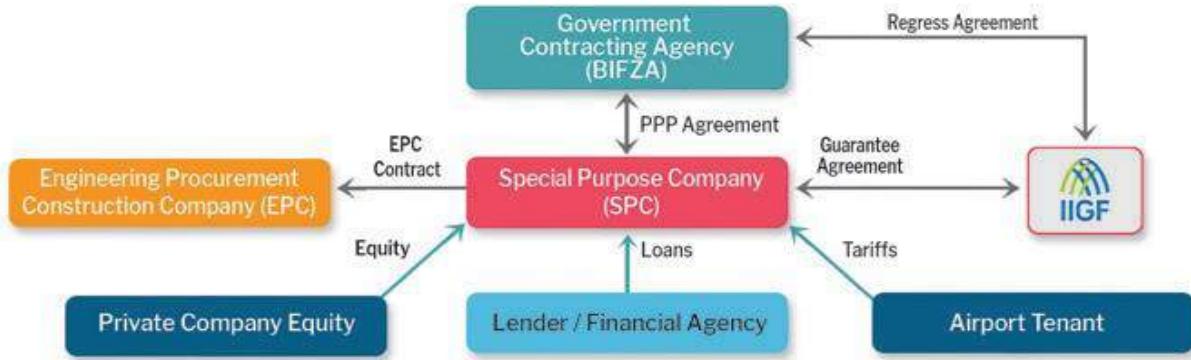
Sector : Transportation	Sub-Sector : Airport
	<p><b>Description:</b>  The purpose of Labuan Bajo Airport is:  <ul style="list-style-type: none"> <li>Empowering tourism in Komodo Island in East Nusa Tenggara Province.</li> <li>Improving airport performance and services to the passengers and related stakeholders.</li> <li>Increasing the number of passengers and cargo up to 4 mppa and 3.500 tonnes respectively in 2044.</li> <li>Expanding national air connectivity.</li> <li>Supporting local economy.</li> </ul> </p>
<p><b>Government Contracting Agency:</b>  Minister of Transportation delegated to Director General of Air Transportation</p> <p><b>Type of PPP:</b>  Solicited</p> <p><b>Return of Investment:</b>  User Charge</p>	<p><b>Estimated Project Cost:</b> USD 481.25 Million</p> <p><b>Financial Feasibility:</b>  IRR : 16.36%  NPV : USD 256.25 Million</p> <p><b>Concession Period:</b> 25 years</p>



Contact Person : Cecep Kurniawan (Head of Airport Business and Partnership Division)  
+62 811-1109-188  
c3c3pkurniawan@gmail.com

## EXPANSION OF HANG NADIM INTERNATIONAL AIRPORT PASSENGER TERMINAL

Location : Batam, Riau Islands Province

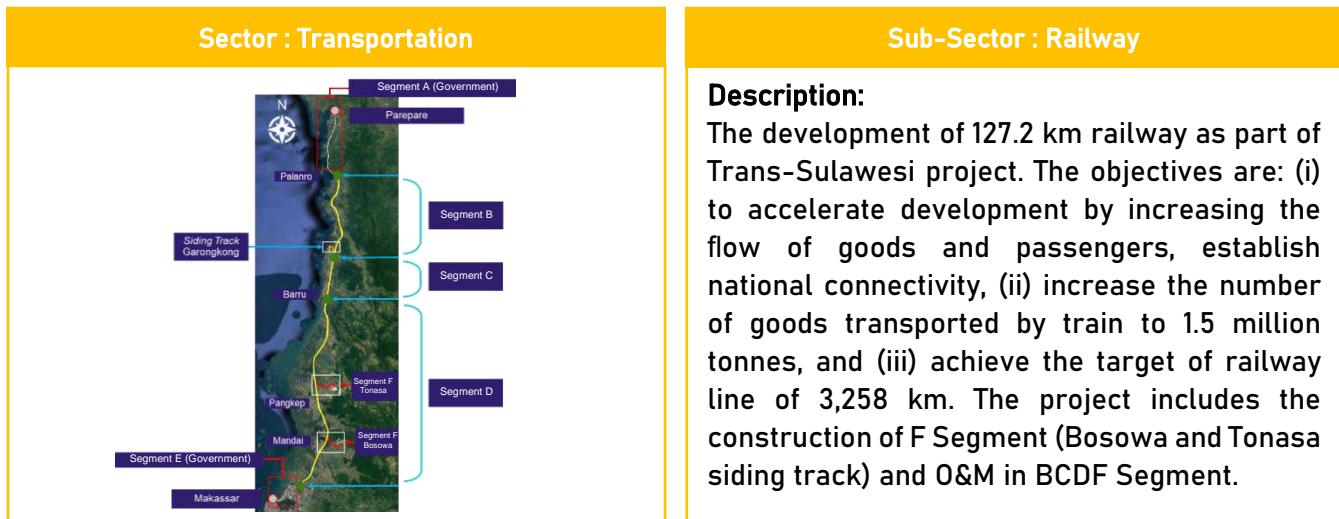
Sector : Transportation	Sub-Sector : Airport
	<b>Description:</b> The project is to expand the passenger terminal of Hang Nadim International Airport and designated to handle up to 8 million passengers in 2019. <b>Scope of work:</b> <ul style="list-style-type: none"> <li>• Expansion of Passenger Terminal;</li> <li>• Operation and Maintenance Passenger Terminal; and</li> <li>• Operation and Maintenance Cargo Terminal.</li> </ul>
<b>Government Contracting Agency:</b> Head of BP Batam (Batam Indonesia Free Zone Authority) <b>Type of PPP:</b> Solely <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 451.38 Million <b>Financial Feasibility:</b> IRR : 18% NPV : Under Calculation <b>Concession Period:</b> 35 years
<b>Project Schedule</b> <div style="text-align: center;">  </div>	
<b>Project Status:</b> Request for Proposal	
Project Structure	
 <pre> graph TD     GCA[Government Contracting Agency (BIFZA)] &lt;--&gt; SPC[Special Purpose Company (SPC)]     GCA &lt;--&gt; EPC[Engineering Procurement Construction Company (EPC)]     SPC &lt;--&gt; IIGF[IIGF]     SPC &lt;--&gt; Lender[Lender / Financial Agency]     SPC &lt;--&gt; Tenant[Airport Tenant]     EPC &lt;--&gt; SPC     PCE[Private Company Equity] -- Equity --&gt; SPC     Lender -- Loans --&gt; SPC     Tenant -- Tariffs --&gt; SPC     GCA -- PPP Agreement --&gt; SPC     IIGF -- Guarantee Agreement --&gt; SPC     EPC -- EPC Contract --&gt; SPC   </pre>	

Contact Person

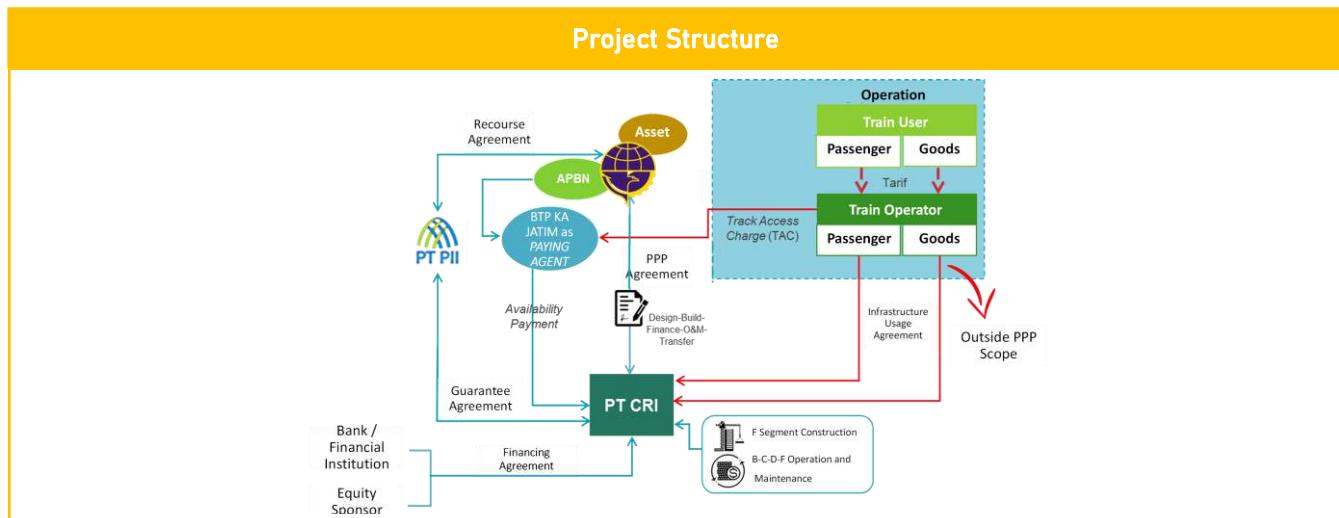
: Ponco Indro Subekti  
 +62-812-6130-3737  
[bthpppteam@bpbatam.go.id](mailto:bthpppteam@bpbatam.go.id) or [bthpppteam@gmail.com](mailto:bthpppteam@gmail.com)

## DEVELOPMENT OF MAKASSAR – PAREPARE RAILWAY

Location : South Sulawesi Province



<b>Government Contracting Agency:</b> Minister of Transportation <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Availability Payment	<b>Estimated Project Cost:</b> USD 69.44 Million <b>Financial Feasibility:</b> IRR : 12.7% NPV : Under Calculation <b>Concession Period:</b> 18.5 years
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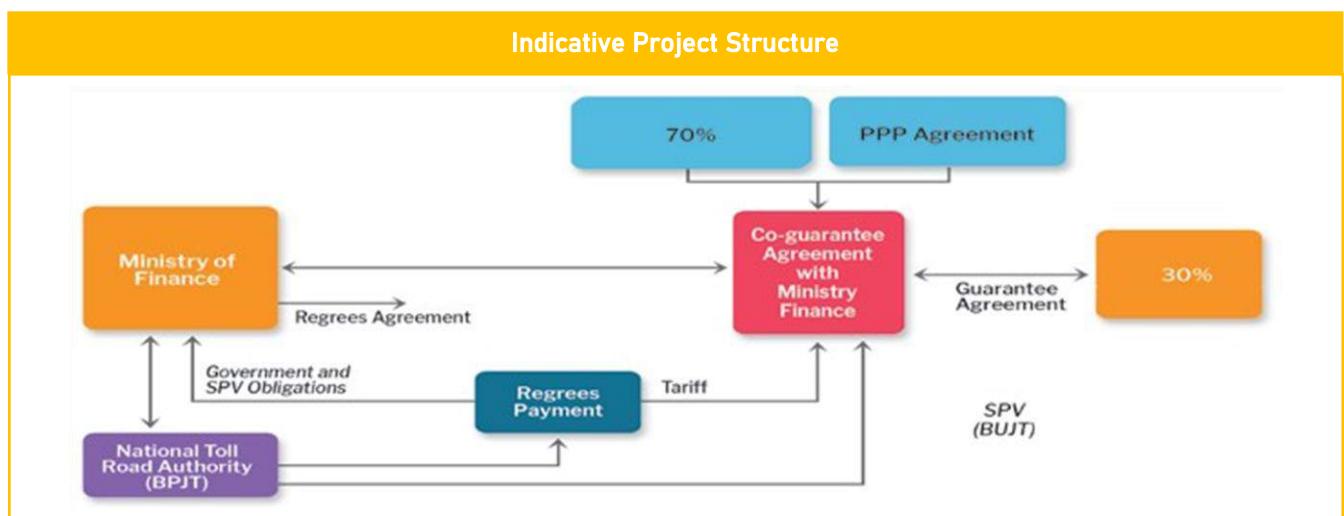


Contact Person : Ir. Zulfikri, M. Sc, DEA (Director General of Railways)

## PROBOLINGGO – BANYUWANGI TOLL ROAD

Location : East Java Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> This project is expected to play an integral part of East Java Road System. It is 172.91 km in length which connected Probolinggo and Banyuwangi, crossing three districts in East Java including Situbondo district. Each district has different potential resources which can be developed further.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 1,624.3 Million <b>Financial Feasibility:</b> IRR : 11.17% NPV : USD 45.9 Million <b>Estimated Concession Period:</b> 35 years

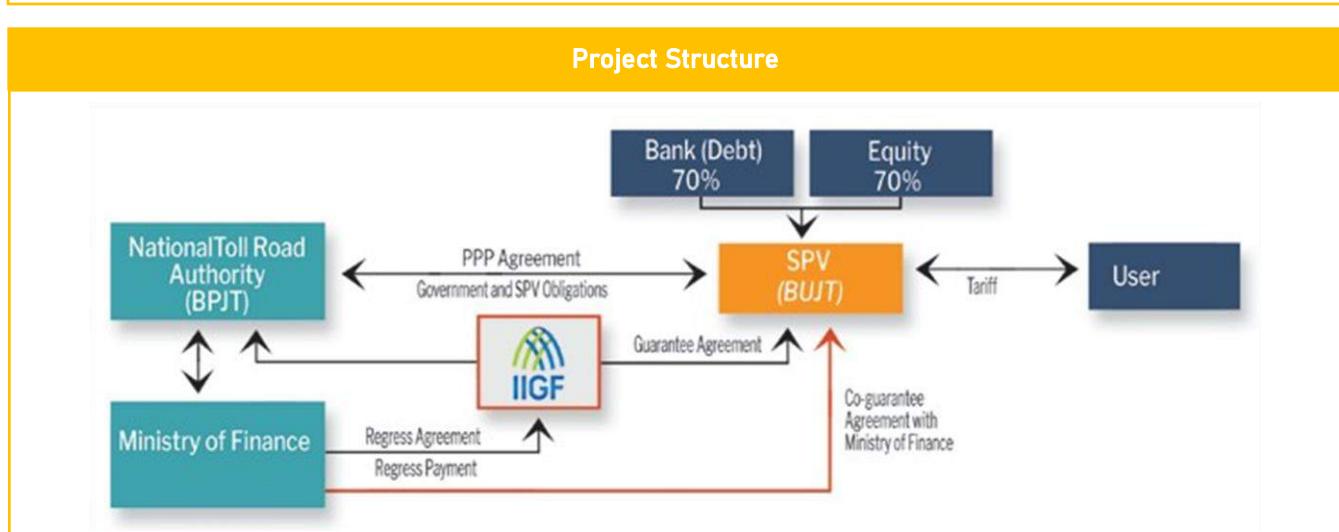


Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## SEMARANG – DEMAK TOLL ROAD

Location : Central Java Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The proposed project will connect Semarang (Capital of Central Java Province) and city of Demak. This Project has high traffic volume with ±27 km in length. Semarang as a capital town of Central Java Province is well-developed with industrial goods and trading. On the other side, Demak is a region that is rich with natural resources. This project is also integrated with the development of Semarang Sea Wall.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT)	<b>Estimated Project Cost:</b> USD 377.8 Million
<b>Type of PPP:</b> Solicited	<b>Financial Feasibility:</b> IRR : 11.56% (with government support) NPV : USD 91.71 Million
<b>Return of Investment:</b> User Charge	<b>Estimated Concession Period:</b> 35 years

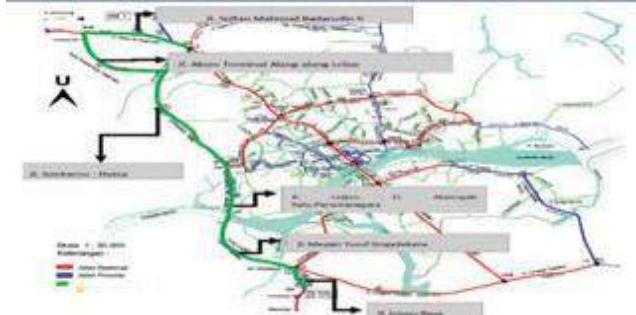


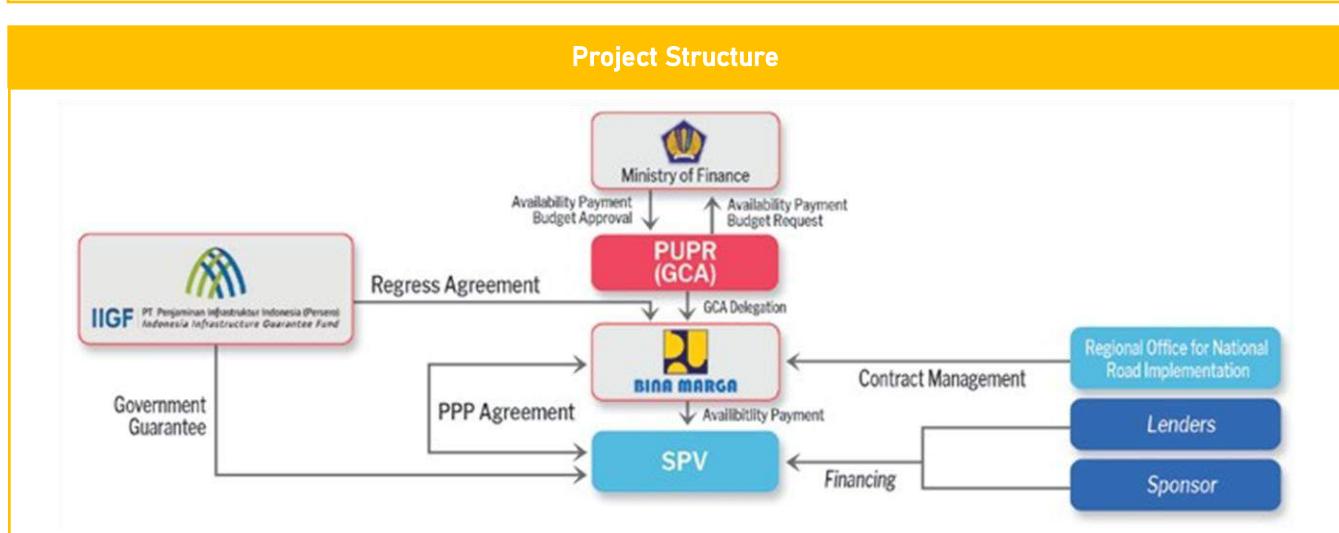
Contact Person

: Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## SOUTH SUMATERA PROVINCE NON-TOLL ROAD PRESERVATION

Location : South Sumatra Province

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> The location of this project is on the East side of South Sumatra Road in Palembang City, namely Srijaya Raya Road, Mayjen Yusuf Singadekane Road, Letjen H. Alamsyah Ratu Perwiranegara Road, Soekarno Hatta Road, Terminal of Alang-alang Lebar Road and Sultan Mahmud Badarudin II Road. The approximate total length of this project will be 29.37 km. Investment return will be paid using the availability payment method.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Availability Payment	<b>Estimated Project Cost:</b> USD 193.9 Million <b>Financial Feasibility:</b> IRR : 9.85% NPV : USD 97.99 Million <b>Estimated Concession Period:</b> 15 years



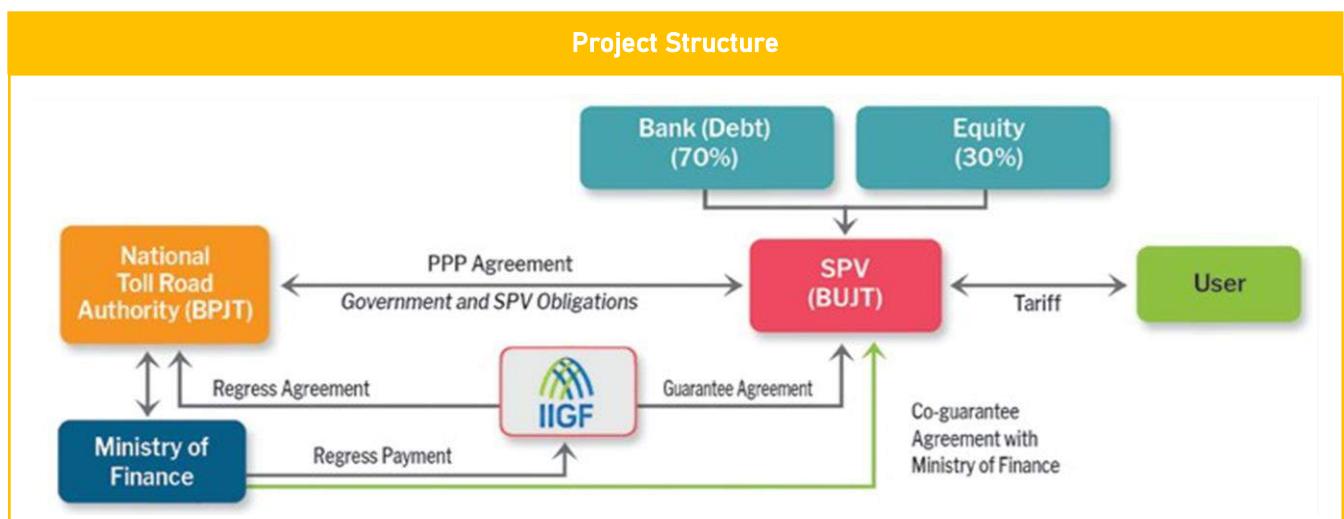
Contact Person

: Ir. Riel Mantik, M.Eng,Sc (Head of Integrated Planning and Road Network Subdirectorate); + 62-8129069604  
[riel.mantik@gmail.com](mailto:riel.mantik@gmail.com) / [sublit.dum@gmail.com](mailto:sublit.dum@gmail.com)

## NORTH PENAJAM PASER – BALIKPAPAN TOLL ROAD BRIDGE

Location : East Kalimantan Province

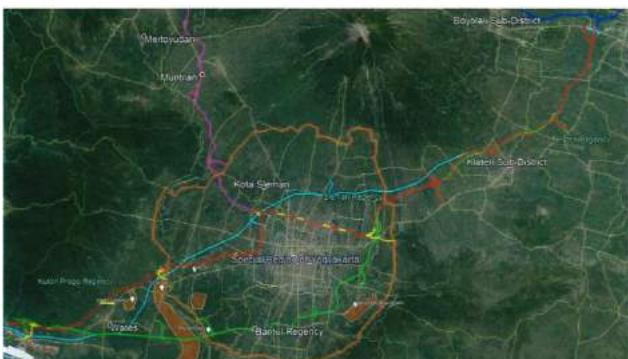
Sector : Road	Sub-Sector : Toll Bridge
	<b>Description:</b> The construction of the bridge (which functions as a toll road) will connect the North Penajam Paser Regency with Balikpapan City across the Bay of Balikpapan. The North Penajam Paser – Balikpapan Toll Road Bridge will not only eliminate the geographical obstacle between the North Penajam Paser Regency and the Balikpapan City, but also between East Kalimantan and South Kalimantan Provinces.
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 1,078.7 Million <b>Financial Feasibility:</b> IRR : 12.61% NPV : USD 123.92 Million <b>Estimated Concession Period:</b> 45 years

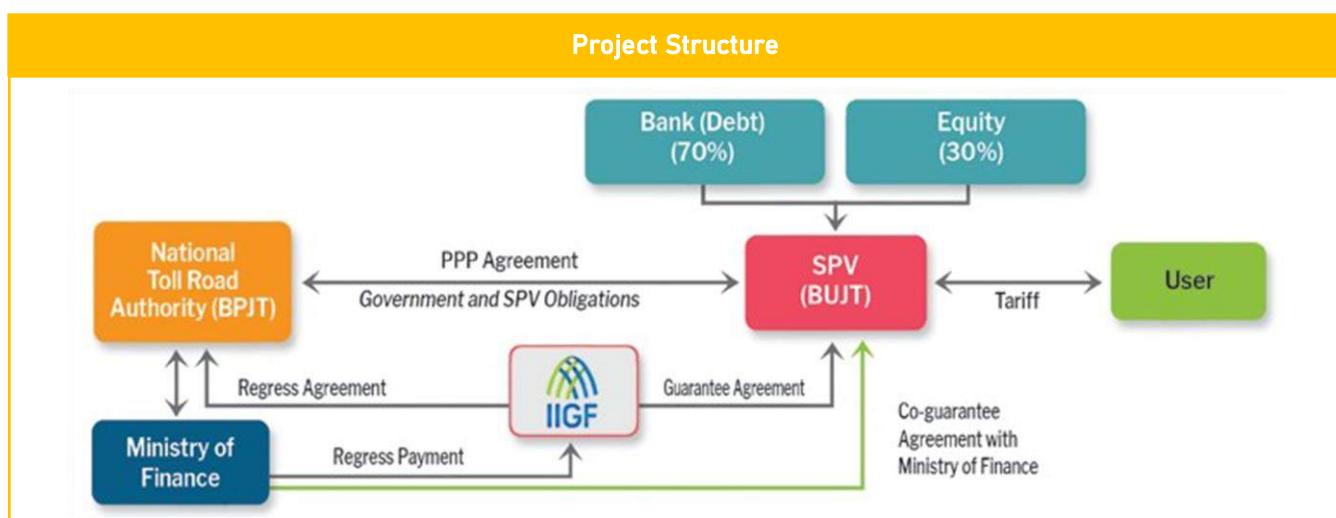


Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## Solo - Yogyakarta - Kulonprogo (NYIA) Toll Road

Location : Yogyakarta & Central Java Provinces

Sector : Road	Sub-Sector : Toll Road
	<p><b>Description:</b>            The development of Solo-Yogyakarta-Kulon Progo (New Yogyakarta International Airport/NYIA) Toll Road is part of the Southern Java Road Network, stretching from Gede Bage in West Java province to Solo in Central Java. The toll road will run for 93.14 km, divided into three sections: Kartasura-Purwomartani, Purwomartani-Gamping, and Gamping-Kulon Progo (NYIA).</p>
	<p><b>Estimated Project Cost:</b> USD 1,984.4 Million</p>
<p><b>Government Contracting Agency:</b>            Indonesia Toll Road Authority (BPJT)</p> <p><b>Type of PPP:</b>            Unsolicited</p> <p><b>Return of Investment:</b>            User Charge</p>	<p><b>Financial Feasibility:</b>            IRR : 11.73%            NPV : USD 146.11 Million</p>
	<p><b>Estimated Concession Period:</b> 40 years</p>

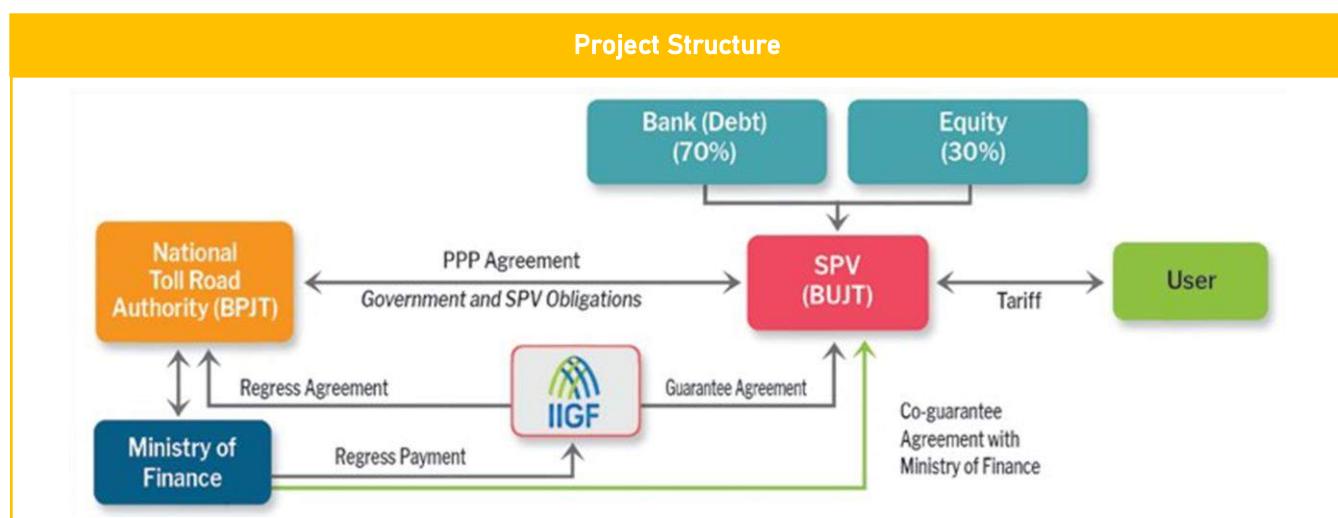


Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

## YOGYAKARTA – BAWEN TOLL ROAD

Location : Yogyakarta & Central Java Provinces

Sector : Road	Sub-Sector : Toll Road
	<b>Description:</b> Yogyakarta-Bawen toll road will connect Semarang-Solo toll road to Yogyakarta. It is planned to reduce heavy traffic on the arterial road. It will also support industrial area in Ungaran-Bawen corridor and Joglosemar (Yogyakarta-Solo-Semarang) tourism area. Furthermore, this project is included in the Indonesia National Strategic Project (PSN).
	<b>Estimated Project Cost:</b> USD 1,206.9 Million
<b>Government Contracting Agency:</b> Indonesia Toll Road Authority (BPJT) <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Financial Feasibility:</b> IRR : 11.61% NPV : USD 90.56 Million
	<b>Estimated Concession Period:</b> 40 years



Contact Person : Denny Firmansyah (Head of Investment Division)  
+6221-7258063  
[bpjt@pu.go.id](mailto:bpjt@pu.go.id) or [investasi.bpjt@gmail.com](mailto:investasi.bpjt@gmail.com)

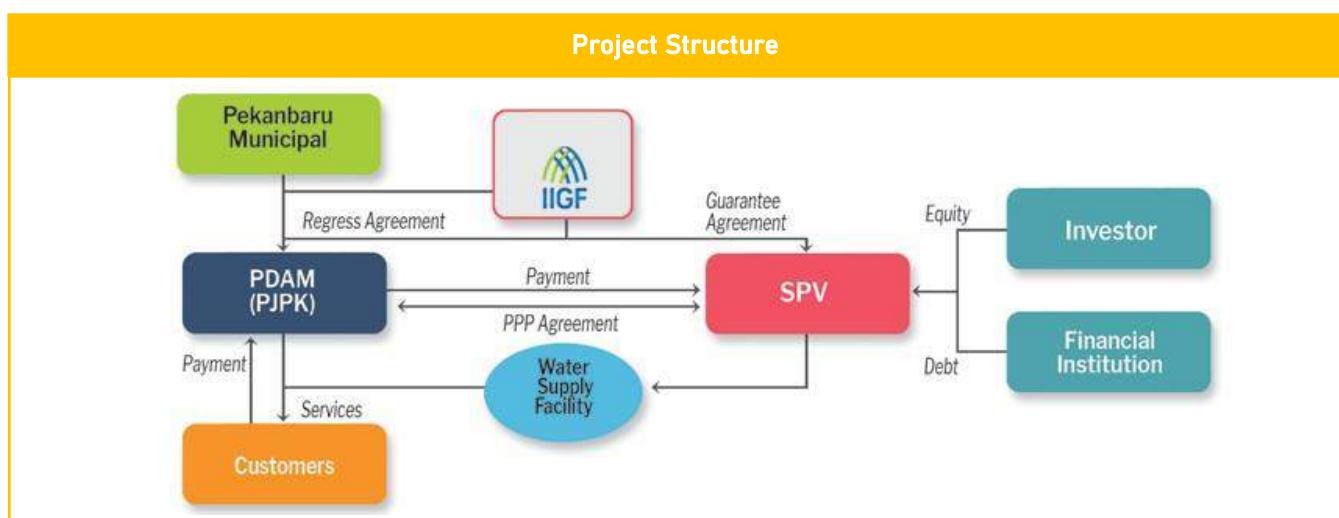
## DEVELOPMENT OF PEKANBARU WATER SUPPLY SYSTEM

Location : Pekanbaru, Riau Province

Sector : Drinking Water	Sub-Sector : Water Supply System
	<b>Description:</b> The purpose of Pekanbaru Water Supply is to provide reliable drinking water infrastructure and to support economic activities in Pekanbaru City. The project includes rehabilitation and uprating of existing WTP and reservoir to reach 500 lps and construction of a new intake facility, WTP, and reservoir with capacity of 250 lps. With total coverage of 61,000 connections for 6 districts in Pekanbaru.
<b>Government Contracting Agency:</b> Director of Tirta Siak Water Supply Company <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 50.94 Million <b>Financial Feasibility:</b> IRR : 14.34% NPV : USD 1.04 Million <b>Concession Period:</b> 25 years

Project Schedule

Project Status : Request for Proposal



Contact Person

: Kemas Yuzferi (Director of Tirta Siak Water Supply Company)  
+62-761-23825 / +62-813-6440-1776  
pdamts.kpbu@gmail.com

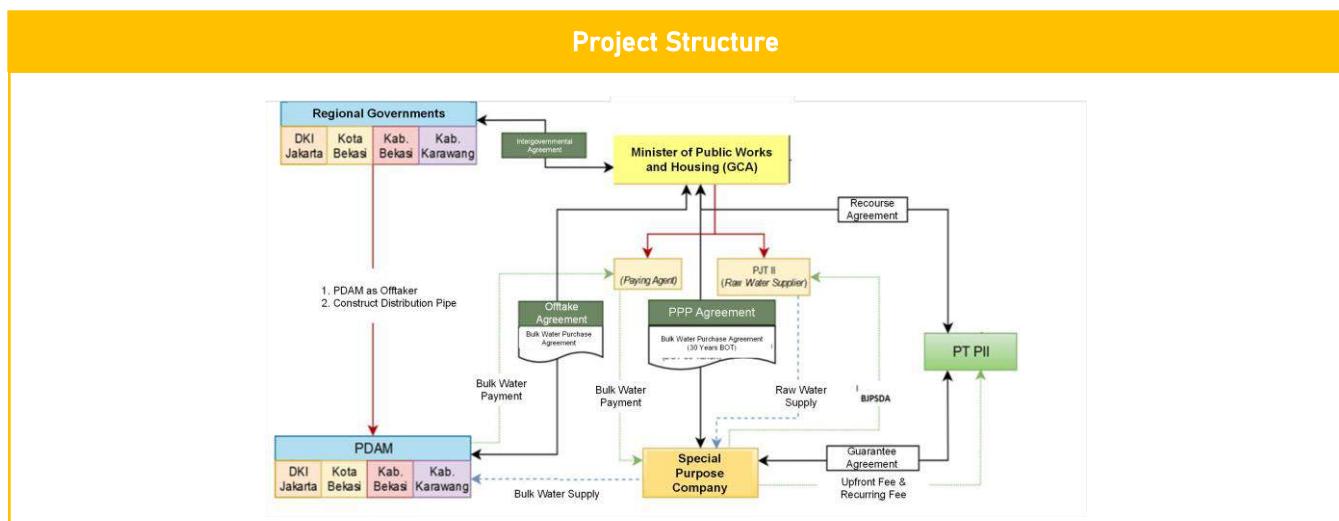
## DEVELOPMENT OF JATILUHUR I REGIONAL WATER SUPPLY SYSTEM

Location : West Java and DKI Jakarta Provinces

Sector : Drinking Water	Sub-Sector : Water Supply System
	<b>Description:</b> Jatiluhur I Regional Water Supply system has an outflow of 5,000 lps that will supply Karawang Regency, Bekasi Regency, Bekasi City and DKI Jakarta. The project covers the construction of intake, transmission pipeline, water treatment plant (WTP), and the development of main network.
<b>Government Contracting Agency:</b> Minister of Public Works and Housing <b>Type of PPP:</b> Unsolicited <b>Return of Investment:</b> User Charge	<b>Estimated Project Cost:</b> USD 137.5 Million  <b>Financial Feasibility:</b> IRR : 13.62% NPV : USD 26.98 Million  <b>Estimated Concession Period:</b> 30 years

Project Schedule

Project Status: Pre-Qualification



Contact Person

: Muryata (Head of PPP Regional Water Supply Team, Directorate General of Infrastructure Financing for Public Works and Housing)  
+6221 - 7264230

## DEVELOPMENT OF MULTIFUNCTION SATELLITE

Location : National



Contact Person

: R. Sri Sanggrama Aradea (Head of Infrastructure Provision Planning Division)  
+62-21-3192-7516  
[sanggrama.aradea@baktikominfo.id](mailto:sanggrama.aradea@baktikominfo.id)

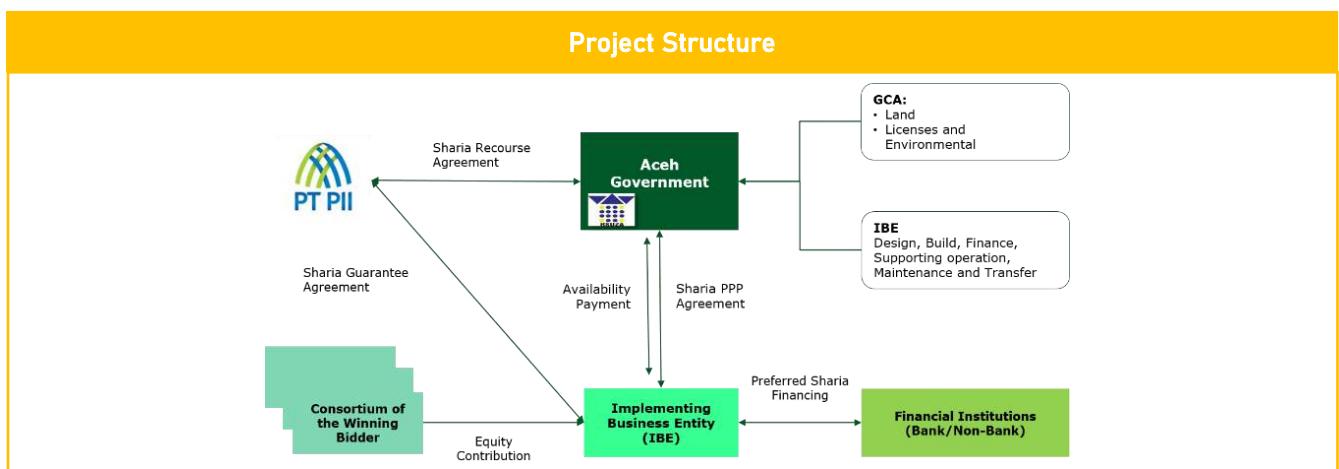
## DR. ZAINOEL ABIDIN GENERAL HOSPITAL

Location : Banda Aceh, Nangroe Aceh Darussalam Province

Sector : Health	Sub-Sector : Hospital
	<p><b>Description:</b> The Zainoel Abidin General Hospital is a public hospital operated by the Government of Nangroe Aceh Darussalam. Its purpose is to provide healthcare for its citizens. To cope with increasing demand of a better-quality healthcare, developing and upgrading hospital becomes a necessity. With the next development, the hospital will provide excellent health services for people of Nangroe Aceh Darussalam.</p>
<p><b>Government Contracting Agency:</b> Governor of Nangroe Aceh Darussalam <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Availability Payment</p>	<p><b>Estimated Project Cost:</b> USD 104.16 Million <b>Financial Feasibility:</b> IRR : 12% NPV : USD 0* *) assuming IRR = MARR <b>Concession Period:</b> 15 years</p>

Project Schedule					
Pre-Qualification Q1 2020	Request for Proposal Q2 2020	Bid Award Q2 2020	Agreement Signing Q3 2020	Financial Close Q4 2020	Construction Q2 2021

Project Status : Pre-Qualification

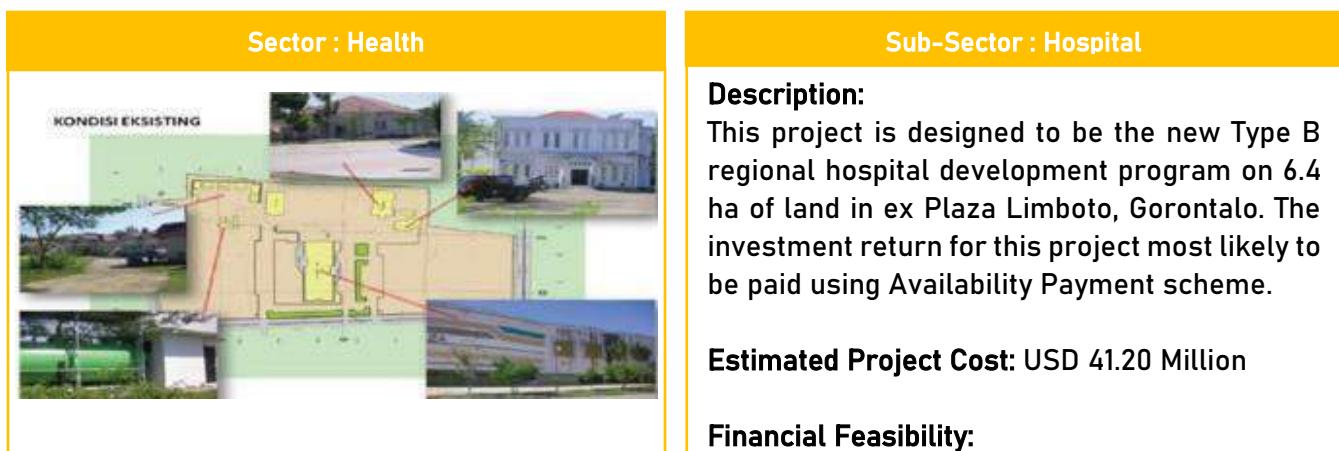


Contact Person

: Mountie Syurga (Head of Bureau of Development Administration)  
+62-812-690-4258

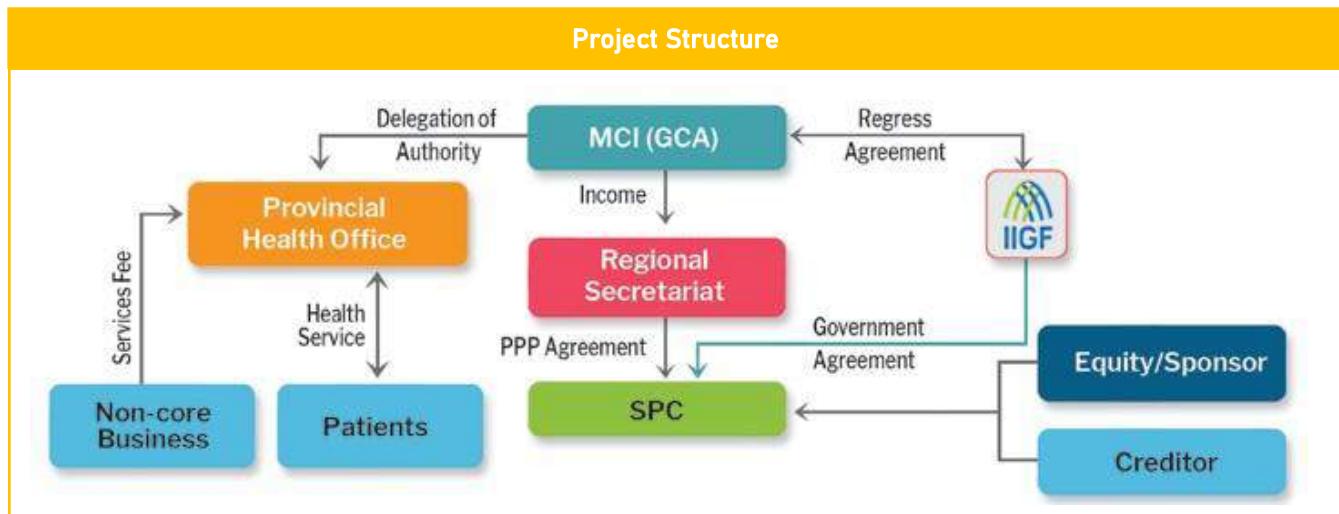
## DEVELOPMENT OF GORONTALO GENERAL HOSPITAL

Location : Gorontalo Province



<p><b>Government Contracting Agency:</b> Governor of Gorontalo</p> <p><b>Type of PPP:</b> Solicited</p> <p><b>Return of Investment:</b> Availability Payment</p>
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<p><b>Description:</b> This project is designed to be the new Type B regional hospital development program on 6.4 ha of land in ex Plaza Limboto, Gorontalo. The investment return for this project most likely to be paid using Availability Payment scheme.</p> <p><b>Estimated Project Cost:</b> USD 41.20 Million</p> <p><b>Financial Feasibility:</b> IRR : 9% NPV : USD 17.85 Million</p> <p><b>Concession Period:</b> 20 years</p>
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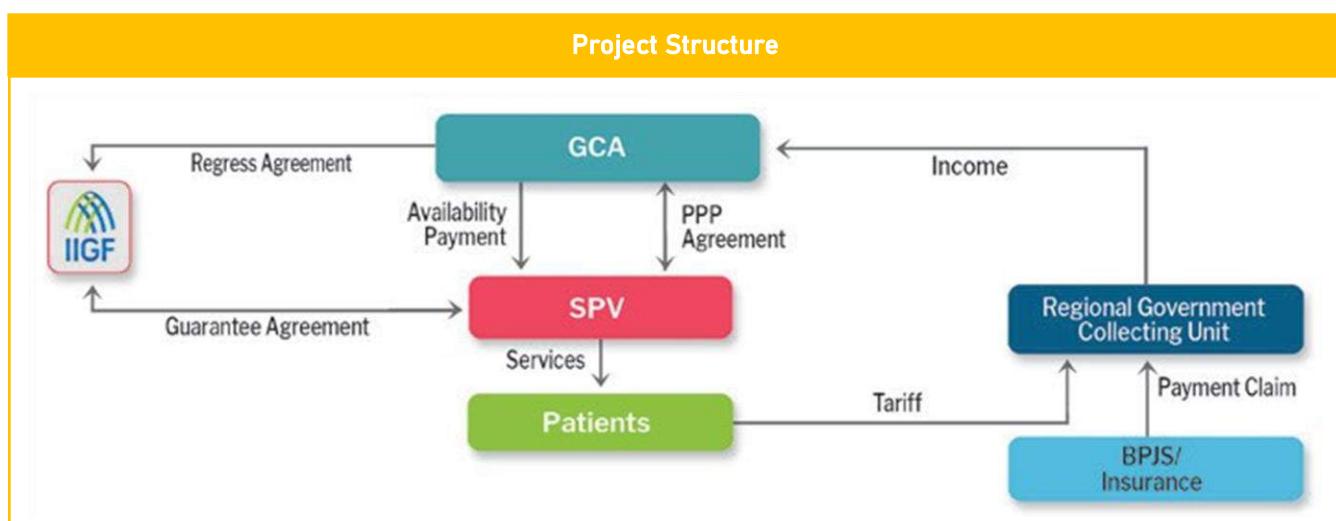
Contact Person

: Olis Bakari (Head of the Human Settlements and Housing Subdivision, Regional Development Planning Agency)  
+62-853-42353710  
olisbakari@gmail.com

## DEVELOPMENT OF SIDOARJO GENERAL HOSPITAL

Location : Sidoarjo, East Java Province

Sector : Health and Sanitation	Sub-Sector : Hospital
 <p><b>Government Contracting Agency:</b> Regent of Sidoarjo <b>Type of PPP:</b> Solicited <b>Return of Investment:</b> Availability Payment</p>	<p><b>Description:</b> Sidoarjo General Hospital is the second hospital owned by the Government of Sidoarjo Regency which aims to provide health service facilities that will cover the community in the west of Sidoarjo Regency. Sidoarjo General Hospital is planned as a class C hospital. This project scheme is DBFOMT with Availability Payment as the investment return to the SPC.</p> <p><b>Estimated Project Cost:</b> USD 24.4 Million</p> <p><b>Financial Feasibility:</b> IRR : 15% NPV : USD 14 Million</p> <p><b>Concession Period:</b> 10 years</p>



Contact Person

: Agoes Boedi Tjahjono (Head of Regional Development Planning Agency)  
+62-31-8947383  
kerjasama.sidoarjokab@gmail.com

## Glossary

Abbreviation	Definition
AP	Availability Payment <i>Pembayaran Ketersediaan Layanan</i>
Bappenas	Badan Perencanaan Pembangunan Nasional / Kementerian Perencanaan Pembangunan National <i>National Development Planning Agency / Ministry of National Development Planning</i>
BKPM	Badan Koordinasi Penanaman Modal <i>Indonesia's Investment Coordinating Board</i>
BLU	Badan Layanan Umum <i>Public Service Agency</i>
BOT	Build-Operate-Transfer <i>Bangun-Guna-Serah</i>
BPJT	Badan Pengelola Jalan Tol <i>Indonesia Toll Road Authority</i>
EIA	Environmental Impact Assessment <i>Analisis Mengenai Dampak Lingkungan (AMDAL)</i>
FBC	Final Business Case <i>Kajian Akhir Prastudi Kelayakan</i>
FIRR	Financial Internal Rate of Return <i>Tingkat Pengembalian Investasi Keuangan</i>
FS	Feasibility Study <i>Studi Kelayakan</i>
GCA	Government Contracting Agency <i>Penanggung Jawab Proyek Kerjasama (PJK)</i>

Abbreviation	Definition
GDP	<b>Gross Domestic Product</b> <i>Produk Domestik Bruto (PDB)</i>
IIGF	<b>Indonesia Infrastructure Guarantee Fund</b> <i>PT Penjaminan Infrastruktur Indonesia (Persero) (PT PII)</i>
KPSRB	<b>Kerjasama Pemerintah Swasta dan Rancang Bangun</b> <i>Public Private Partnership and Financial Engineering</i>
LARAP	<b>Land Acquisition and Resettlement Action Plan</b> <i>Rencana Pembebasan Lahan dan Pemukiman Kembali</i>
LKPP	<b>Lembaga Kebijakan Pengadaan Barang dan Jasa Pemerintah</b> <i>National Procurement Policy Agency</i>
MoF	<b>Ministry of Finance</b> <i>Kementerian Keuangan</i>
NPV	<b>Net Present Value</b> <i>Nilai Uang Sekarang</i>
OBC	<b>Outline Business Case</b> <i>Kajian Awal Prastudi Kelayakan</i>
O&M	<b>Operation &amp; Maintenance</b> <i>Operasional dan Pemeliharaan</i>
PDAM	<b>Perusahaan Daerah Air Minum</b> <i>Regional Water Utility Company</i>
PDF	<b>Project Development Facility</b> <i>Fasilitas Penyiapan Proyek</i>
PT. PLN (Persero)	<b>Perusahaan Listrik Negara</b> <i>State Electricity Company</i>

Abbreviation	Definition
PQ	Pre Qualification <i>Pra Kualifikasi</i>
PPP	Public Private Partnership <i>Kerjasama Pemerintah dan Badan Usaha (KPBU)</i>
Pre-FS	Pre-Feasibility Study <i>Pra Studi Kelayakan</i>
PT SMI (Persero)	PT Sarana Multi Infrastruktur (Persero)
RFP	Request for Proposal <i>Permintaan untuk Proposal</i>
RKL	Rencana Pengelolaan Lingkungan <i>Environmental Management Plan</i>
ROE	Regional Owned Enterprise <i>Badan Usaha Milik Daerah</i>
RPL	Rencana Pemantauan Lingkungan <i>Environmental Monitoring Plan</i>
RPJMN	Rencana Pembangunan Jangka Menengah Nasional <i>The National Medium-Term Development Plan</i>
SOE	State Owned Enterprise <i>Badan Usaha Milik Negara</i>
SPC	Special Purpose Company <i>Badan Usaha Pelaksana (BUP)</i>
VGF	Viability Gap Funding <i>Dukungan Kelayakan</i>

The image shows a white, multi-story building under a blue sky with scattered clouds. A large, dark green diagonal band runs from the top right towards the bottom left, and a smaller orange diagonal band runs from the bottom left towards the top right, partially covering the building.

**BADAN PERENCANAAN PEMBANGUNAN NASIONAL**

**BAPPENAS**