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**Risk and Policy in Indonesian Toll Road  
Development: from the Perception of Public  
and Private Sector**

**Study Case of Pandaan – Malang & Manado - Bitung**

A Research Paper presented by:

***Fadil Arif Nadia***

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Members of the Examining Committee:

Dr. Sunil Tankha (Supervisor)

Dr. Joop de Wit (Reader)

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***Disclaimer:***

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

***Inquiries:***

**Postal address:**

Institute of Social Studies  
P.O. Box 29776  
2502 LT The Hague  
The Netherlands

**Location:**

Kortenaerkade 12  
2518 AX The Hague  
The Netherlands

Telephone: +31 70 426 0460

Fax: +31 70 426 0799

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## List of Acronyms

Bappenas	Ministry of National Development Planning
BPJT	<i>Badan Pengatur Jalan Tol</i> /Indonesia Toll Road Authority
DGH	Directorate General of Highways
EIRR	Economic Internal Rate of Return
FIRR	Financial Internal Rate of Return
GOI	Government of Indonesia
IIGF	Indonesia Infrastructure Guarantee Fund
MoF	Ministry of Finance
MoPW	Ministry of Public Works and Housing
SCBA	Social Cost Benefit Analysis
PPP	Public Private Partnership

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## **Abstract**

Government of Indonesia targeted to build 1.000 km of toll road for the next five years (2015-2019), however there is a distinctive gap in Indonesian toll road investment. Nonetheless, toll road development is closely related to risk, after the 1998 crisis common perspective that Indonesia is identified as a high-risk country. Therefore, investor is reluctant to invest in Indonesia. The purpose of this study is to define impact of policy reform (Government Guarantee) on the risk of toll road investment in Indonesia from the perspective of the public and private sector. As an exploratory research, this study relies on secondary research literature and data such as feasibility study, law & regulations and monitoring data in toll road sector. This study also uses the interview to obtain perspective from the two stakeholders. In additions, by using two study cases, it compares the mechanism, implementation, and limitation of government guarantee scheme in two different regions. The findings indicate that the policy is not effective in reducing the risk in toll road development rather more like a procedural step to the received financing. The lessons learned are valuable for determining appropriate government guarantees for future PPP projects.

## **Relevance to Development Studies**

The provision of road infrastructure has a significant role to facilitate the mobility of goods and services as a driver of economic activity. Traditionally in developing country Government is the sole actor in providing the road infrastructure for public services. However, with the increasing demand of road, Public-Private Partnership scheme is necessary to decrease the investment gap by involving the private sector in public service delivery. Common perceptions in developing country where the risk investment is considered to be high, therefore Government action in policy reform is needed to reduce the risk. This paper tries to show the effect of policy reformation in decreasing the risk in toll road sector.

## **Keywords**

Toll Road, risk, policy, Government Guarantee, Public Private Partnership, Indonesia Infrastructure Guarantee Fund, Indonesian Toll Road Authority, private sector

# Chapter 1 Introduction

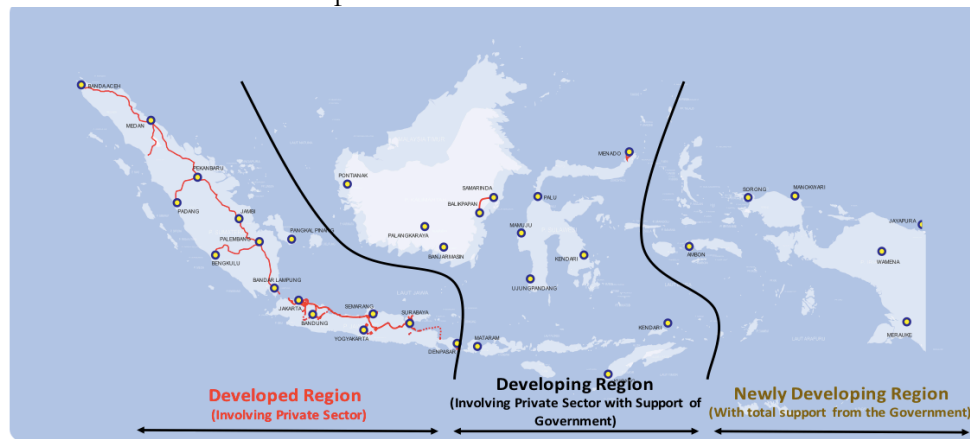
## A. Backgrounds

Road infrastructure in Indonesia has a vital role in national transport to serve approximately 92% of passenger transport and 90% of freight traffic on the existing road network. So far the total value of infrastructure asset capitalization National Road has more than 200 trillion rupiah, which is a very strategic role in lowering transport costs. Transportation infrastructure is necessary to facilitate the mobility of goods and services as a driver of economic activity. The provision of road infrastructure has a significant impact on the economy. The availability of road infrastructure can drive economic activity that connects manufacturers, markets, and consumers. It will also open the access and opportunities for local communities to businesses that encourage the creating/opportunities of new jobs.

In the 2010-2014 Strategic Plan for Directorate General of Highways, Indonesia in general divided into three regions: developed region (Sumatera Java and Bali), developing region (Kalimantan and Sulawesi) and new developing region (Papua, Maluku, and Nusra island) (DGH 2010). Each region has a different policy regarding developing the road Infrastructure. For developing and new developing regions, Government of Indonesia (GOI) through Directorate General of Highways already have a plan to build 2.650 km to connect missing link in each island. Since Java and Sumatera island have the contribution of 57% of the total population in Indonesia and 80 % to the PDB in Indonesia, it seems relevant for constructing a new road for this region GOI will be focusing on private Investment (Toll Road).

Construction of toll roads in Indonesia is expected to become the backbone of economic growth in Indonesia, especially on Java and Sumatera. From 2015-2019, Ministry of National Development Planning (Bappenas) targeted that economic growth in Indonesia will increase 8-11% per year. This objective cannot be fulfilled if the flow of goods is disturbing by the traffic jam in existing road. So that in the next five years GOI through the Indonesia Toll Road Authorities (BPJT) targeted to develop 1,000 km of toll road at the end of 2019 (Bappenas, 2015). In the long term, Indonesian Government has the obligatory together with the Asia region to support ASEAN Highways that will increase connectivity in 2030. To support the ASEAN Highways Indonesian Government, have to build 3.000 km of toll roads that will connect Banda Aceh to Bandar Lampung (High-Grade Highways Sumatera), finishing the Trans and non-trans Java toll road also develops toll road in Kalimantan Island (Balikpapan-Samarinda) and Sulawesi Island (Manado-Bitung).

Map 1. National Toll Road Plan



Source: BPJT (2016)

The budget for road infrastructure allocated for 2015-2019 is 278 trillion rupiah and only thirteen trillion rupiahs to build 140 km of toll roads (DGH 2015). There is 860 km of toll gap that should be fill by the private investment with total amount investment of 157 trillion rupiahs (BPJT 2016). To build the High-Grade Highway Sumatera GOI has to spend 141 trillion rupiahs (DGH 2012). The total investment needed to build the toll road in Indonesia from 2015 to 2030 is + 298 trillion rupiah and if Indonesian Government unable to attract the private investment it means that there will be a backlog in national toll road development, hence it will halt the economic growth and decline in national competitiveness. The construction of toll road infrastructure has often become a complicated issue for many countries especially for a country who does not have a resource of funding.

## B. Problem Statement

Public Private Partnership seems to be one of the solutions of resources funding; Indonesian government already publish the PPP book in 2010 (12 toll road project). This PPP book contains the list of projects proposed by the government, and it also gives detail of every toll road project such length of toll, investment needed, FIRR (Financial Internal Rate of Return), land acquisition progress and constructions plan. One of the objectives of the PPP in Indonesia is creating an investment climate that attracts Businesses to deliver infrastructures. With the huge amount of investment, the Indonesia Government have to make sure that the risks in toll road are reduced, therefore transaction cost for Toll Road market will be suppressed. Enabling good policies playing the critical role toward the succession of PPP in Indonesia, because well-planned policy can fail if project implementation is poorly managed.

Since the great market failures in 1997–1998 Indonesian crisis, "one adjustment has been the increasing attention paid to building institutional capacity to regulate market transactions effectively" (Davidson 2010: 466). It raised the questioned how PPP will be able to attract private investment since the public

perception of Indonesian. This 'reality' is reflected by Davison (2010: 466) summarised from work of Hadiz and Robinson (2004), Hamilton-Hart (2007) and Lev (2005) that Government with ineffective bureaucratic and incapacitated rule of law lead to weak state institutions that captured by predatory elite interests.

However, "From the private sector perspective, the profitability (or "bankability") of projects is crucial" (Romero, 2015: 5). The former Head of Toll Road Authority in his interview (Investor Daily 2011) affirmed that national banks are still reluctant to bear the credit risk for Indonesia for toll road investment; 24 toll road projects are now dormant or stagnant status because they cannot get financing from the Bank. Thus, banks will sign the credit agreement with investors if there are government guarantee given to the toll road project in the event of termination of the contract. For this reason, GOI through Ministry of Finance (MoF) in 2009 established Indonesia Infrastructure Guarantee Fund (IIGF) to manage Guarantee Fund that according to the World Bank will boost creditworthiness of the project. (Rulliadi, 2014: 2-3).

Nonetheless, there are not many Toll Road Company in Indonesia from 48 Toll Road sections 38 of them are operated by PT. Jasamarga that consist of 15 are managed by PT. Jasamarga and the other 23 are operated by their subsidiary company (BPJT 2016: 56-59). PT. Jasamarga itself based on BPJT data in 2016 has more than 60% of the toll road in Indonesia. This data showed that PT. Jasamarga has played the critical role in Toll road development in Indonesia. Nevertheless, PT. Jasamarga that did not see this facility as a risk mitigation. Even though, Government Guarantee policy has been introducing in 2009, from 2009-2014 PT. Jasamarga has operated nine new toll road without using Government Guarantee facilities (BPJT 2016: 19). In fact, for the new procurement in Pasirkoja Soreang toll, they chose not to use it. It is intriguing why the biggest toll road company seems reluctant to the facilities. Build upon these indications I will focus my research on the policy made the Government are reducing the risk of toll road development and how largest toll road company in Indonesia sees the Government Guarantee policy.

### **C. Objectives of the study**

The main objective of this study is to analyse the effectiveness of policy reform in order reducing risk in toll road investment. This study will give background what drive the policy reform and how its implementation in different toll road in Indonesia. Furthermore, the study will give insight limitations of the current policies not only from public sector perspective but also from the private sector and possibilities of improvement strategy in the future.

Then, in this paper will explain policy (Government Guarantee) that has been implemented to reduce the risks and give benefit to the private sector. Furthermore, this study also aims to investigate the risk perceptions of key stakeholder that involved in the investment of toll roads. Risk perceptions have a substantial impact on these PPP schemes for investing in public infrastructure.

## D. Research question

This research will focus on the main research question 'What has been the impact policy reform (Government Guarantee) on the risk of toll road investment in Indonesia?'.

To elaborate this research also raises sub-questions as follows:

- a) In toll road Investment policy, what are the risk attributes that concern the public sector the most and, the private sector the most?
- b) From the private sector how they perceive the risk and how do they feel about policy and law in Indonesia?

## E. Methodology

This paper is an exploratory study where "taking well-defined theories and applying them in your area" (MeanThat, 2016) in this paper will explain how the Government Guarantee implemented in two projects with the different in region approach.

"Exploratory research often relies on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management or competitors, and more formal approaches through in-depth interviews, focus groups, projective methods, case studies or pilot studies" (Audiopedia 2014).

In accordance with the objective and problem statement of this paper, therefore it will focus on how the guarantee applied on PT. Jasamarga as the oldest and the biggest toll road company in Indonesia. It will explain the history, Identity, value Identity, values, structure and system, also Strategy, Finance and Relationship (Roche, 2008).

Therefore, for data collection method this research will use case study and Semi-structure in-depth interviews. For study case in this paper selected as an appropriate mean for the research in explaining how government guarantees is implemented in Indonesia. "It is considered the preferred research strategy when a 'how' or 'why' question is being asked about a contemporary set of events over which the investigator has little or no control" (Laishram, Satyanarayana; Yin as cited in Xu et al., 2014: 358). There are two toll road project selected and studied in this paper as they contained all the information and informant availability as required according to the project selection criteria as follows:

- a) The projects have detailed information on government guarantees and feasibility study;
- b) The projects are distributed in different region and will construct under various social, economic, political and legal environments;
- c) The projects cover different types from the PPP scheme and purpose of the project;

The first project is Manado-Bitung toll road; this project located in Sulawesi island (developing region) this is a 39.9 km toll road. This project using SBOT

scheme, which Indonesian government contributed to building 37,3% (14,9 km) from 39,9 km, this support is needed to increase the FIRR. This toll road not only have government support, but they also have Government guarantee facilities. The next project is Pandaan-Malang (developed region), the length of this project is 37,62 km. This project is using BOT scheme, and to reduce the risk of toll road development is also using the government guarantee facility. Also it has been on the PPP book from 2010.

Semi-structure in-depth interviews were adopted as a means of investigation for this paper. The aim is to qualitatively examine risk perceptions of different stakeholder groups to PPP toll roads. The findings then used to establish the links between perceptions of risk and policy reform these are summarized. An in-depth interview used because of “its powers to achieve honest and robust responses honest and robust responses” (Whitehead as cited in Chung et al., 2010: 46) and to give honest reactions and feedback of stakeholders' perspectives. The semi-structure approach is able to provide the primary data that this paper needed, and also it will emerge unexpectedly useful data based on their experience in toll road sector that not in our plan (O’leary 2013).

To enable a balanced view, eight interviewees were selected four from the public and four for the private sectors. Interviewees that has been selected is the stakeholders who have been directly engaging in the government guarantee policy and related to the project in the case study. The interviewees from the public sector are current and past Head of Toll Road Authority, Deputy Director for Toll Road Investment Division in Toll Road Authority and IIGF. Participants from the private sector are two from PT. Jasamarga as one of the consortia in Manado Bitung and Pandaan Malang project, PT. Citra Marga Nusaphala Persada (PT. CMNP). TBK that has been responsible for Pasirkoja Soreang toll road projects, foreign investor/contractor to get perspective about toll road in the case study. All interviews lasted between 60 and 100 minutes and were tape-recorded (with permission) to ensure accuracy and to facilitate analysis.

This research paper will also use secondary recourses such as policy, law, regulations, reports, newsletter and publications related to Toll road sector. It is necessary to analyze if there any gap between the policy, risk perceptions from the public and private sector.

## **F. Scope and Limitation**

There is no possibility of an ethical challenge in conducting the research. However, because of my positions as a Government official that I would some bias before I do the Interview and while conducting the interview, maybe some of the private sectors will say what they consider that will not harm their relationship with government.

There are some limitations that I am facing while collecting the data. For the secondary data, I manage to get the feasibility study for Pandaan Malang and Manado Bitung along with the agreement (contract). For the primary data according to my research design, I planned to get the interview with all the people that involve with each of the toll road projects I mentioned before (Toll Road Authority, IIGF, Private Sector, and contractor).

I manage to interview the person who is in charge with Pandaan Malang and Manado Bitung (PT Jasamarga) and for Pasirkoja Soreang toll I cannot interview PT CMNP, but I manage to get the information from their opponent in the procurement process. From the Government side, I interviewed the Head of BPJT, Deputy Director for Toll Road Investment Division in BPJT and his staff also the IIGF staff. As mentioned before that for this paper has a limitation that it only provides one perspective of private (PT. Jasamarga). Therefore, it will use project that under the PT. Jasamarga and use their perspective for the particular policy.

## **Chapter 2 Literature Review and Analytical Framework**

### **A. Public Private Partnership**

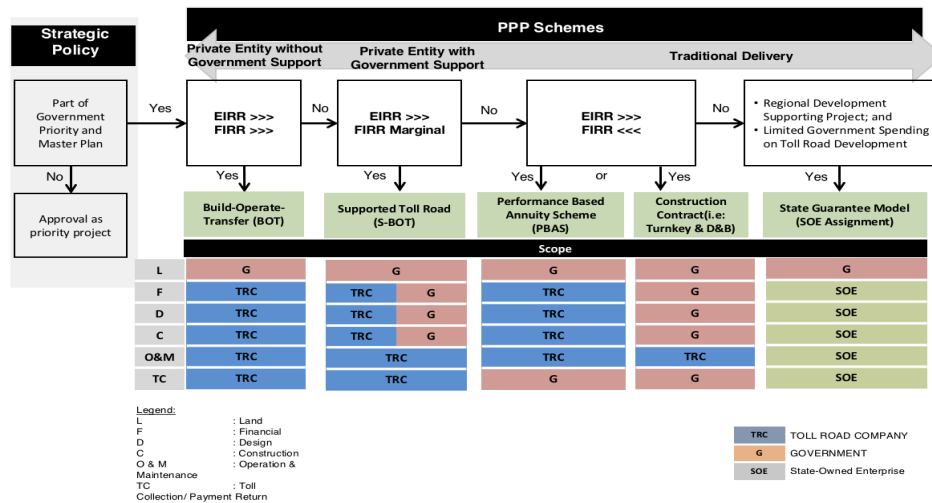
Governance has evolved horizontally when governance is opening opportunities for cooperation between the central or local government with the private sector to be involved in delivering the public service (Swyngedouw 2005). This shift is known by the name of New Public Management (NPM). “NPM-related reforms were identified by “hands-on professional management,” explicit performance standards, output controls, organizational disaggregation, competition and contractualization, private sector-style management practices, and an emphasis on parsimony in financial resource use” (Hood as cited in Lodge & Gill 2011: 142). PPP is one of the schemes that related to the NPM.

“Public private partnerships (PPP) are an established model for governments internationally to provide infrastructure-based services, using private, as opposed to public, finance” (Demirag et al. 2011: 294). Therefore, Private sectors capital is needed as a source of funding PPP appears to be one of the solutions for filling the investment gap. Objectives of PPP (Based on Presidential Regulation No. 38/2015) attract private funding to participate in infrastructure delivery. Deliver good quality, effective, efficient, and beneficial infrastructures right on schedule. Create investment climate that attracts Businesses to deliver infrastructures. Promote the concept of "user fee for services." Provide investment return guarantee through the mechanism of periodical payment by the Government to the business entities.

In order to deliver the public service private sector will have toll road concession which is an agreement with Government in financing, technical planning, construction, operation, and maintenance. This concession encourages the private sector to have innovations (better financing and toll road design) at the pre-construction and construction so it can lower the cost in operation and maintenance period (Chung et al., 2010: 44). PPP project in Indonesia toll road has the range of concession from 35 to 60 years in order private sector to earn revenue in fact in the first five years private is struggling the get positive cash flow. “In theory, these transport concessions should shield government from traffic risk, financial risk, and operation and maintenance risk, hence better financial vfm” (ibid, 2010: 44). However, as shown in figure. 1 PPP scheme in Indonesia is trying to transfer the risk to the Government because toll road project in Indonesia did not have high FIRR.



Figure 1. PPP Scheme in Indonesia Toll Road Development



Source: BPJT (2015)

PPP can take many forms and the most common scheme in Indonesia are Build Operate Transfer (BOT) and Supported Build Operate Transfer (S-BOT). BOT scheme is usually applied for the project that is economical, and financial feasible which the GOI provide the land and TRC is responsible for financing, design, construction, operation, and maintenance also toll collections. For the project that has marginal in FIRR (not financially feasible), it will receive support from GOI (S-BOT) in financial, design and construction to increase FIRR.<sup>1</sup>

PPP scheme is related to the principal-agent theory, GOI (principle) has the interest developing toll road. In spite of developing the toll road, GOI by their own GOI rather hire private sector that specializes in Toll Road (financing, design, operating and maintenance), which assume to be more efficient (Cavaliere and Scrabrosetti 2008). By transferring the public services to the private, it raises the question how to make sure that the GOI has the control over TRC and they did not work for the best interest of their company (only to gain revenue). This problem occurs because of asymmetric information and should be considered by GOI. However, the consideration arises for the privatize company it will have two principals: the shareholders and the regulatory agency which also has effect in improving the efficiency (Ibid, 2008: 704).

However, PPP scheme that seems to be the “answer” to the finance problem in infrastructure also has a downside referring to Romero in 2015 there is some consideration in PPP implementation. Projects that are using PPP scheme have massive budgeting. Therefore, it will lead to the high tender, transaction cost, complicated and long-term contract. Means, that for developing country such as Indonesia as stated before there is only few toll road company (BPJT 2016: 56-59) in the first place, it will make harder to find companies have the

<sup>1</sup> The structure of BOT and S-BOT provided in Appendix II

capacity to enter the business. Not only it will limit the government options but also reduce the competition in the tendering process. Romero (2015) in his research mentioned, in that situation where the big company will get the project it would lead to new risks for the government, if there is a problem in the implementation of the project, the companies will renegotiate the agreements that favourable to them. It caused more than 50% of toll road concessions in Indonesia are renegotiated. Renegotiation is not always a bad thing, but in some cases according to Romero (2015: 7) “due to lack of competition, no transparency and privileged position of the private sector”, the negotiation process will detrimental to the government's position.

“Successful implementation of PPP demands many prerequisites, such as a business-friendly environment, a well-established legal system, a clean administration and open markets” (Sobhiyah et al. as cited in XU et al. 2014: 356). Xu et al. point out that providing support such government guarantee is needed to promote the success of PPP since it has longer-term of uncertainties, wider-risk and lack of a positive environment for the investor.

## **B. Risk**

### ***Concept of Risk***

Before going into deep with the risk in Indonesia, it is better to know about the concept of risk itself. “In psychological literature, risk is generally believed to be a multi-dimensional construct that comprises a number of perceptual dimensions ... In particular, the psychological literature suggests that behavior will be impacted on by the extent to which people believe the consequences of risky decision making will be personally relevant” (Williams et al. as cited in Demirag et al., 2012: 1319). The risk in financial textbook has the different meaning that “possible outcomes that may arise in the future” (Helliard et al., 2001: 7). This concept of risk will have implication; “that different parties have different perceptions of risk and their capabilities of risk management differ” (Chung et al., 2010:44). If the private or partner have “(Mis)perceptions about the risk, it can strongly influence the manner in taking the risk and value the risk” (Ball et al.; Blanc-Brude & Strange, as cited in Chung et al., 2010: 44).

El-Amm 2003 studied indicated, other than Country risk there will also be the market risk, for example, an uncertain investment climate, a record of poor economic governance. Last but not least is the Project risk that includes development risk, construction risk, and operation risk.

Therefore, perceptions become important to the risk concept; it depends on the private sector capacity how they manage the risk, do they have the resource to deal with the risk (human and financial capacity) and also depend on the characteristic of the private are they risk taker or risk averse. Some of the private sectors consider Indonesia as a high-risk country but because of

the return on Investment they still willing to take the risk. However, “The government may seek to reduce those investor risks and thereby attract more private capital, at a lower cost” (Delmon 2007: 14).

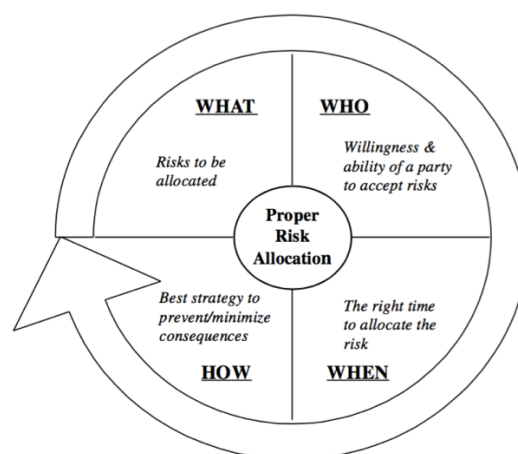
### ***Risk Allocations***

Risk allocation is important since it will determine whether the private sector stands ready to take PPP project or not. With risk allocations also give the government decisions about how much return should the private sector gain. To allocated the risk properly based on Abednego and Ogunlana (2006: 629), risk allocations have to fulfil several conditions such as;

- Stakeholders with the capability to control the event should bear the risk;
- Risk has to define accurately, and all the stakeholders had to understand and evaluated the risk.
- A stakeholder must have the capability (technical/managerial) to manage the risks.
- To prevent the risk from happening a stake holders should have financial capacity to sustain the risk impact.
- Every stakeholder must be willing to accept the risk

Based on the conditions mentioned above there should be an evaluation before the risk can be allocated. However, it only helps policy maker where the risk should be allocated. "Therefore, besides just determining which party (who) has the best capabilities to accept the risk (what), the when and how factors should also be considered to ensure proper risk allocation" (Ibid, 2006: 629).

Figure 2. Concept of Proper Risk Allocation



Source: Abednego and Ogunlana, 2006

Nonetheless, based on Irwin (2007: 65-69) research government have special features for addressing the risks. Firstly, Government has an ability to absorb risk. As long as the state still have the legitimations, Governments can spread risk among taxpayers and beneficiaries of government spending.

Secondly, Ability to Spread Risk Coercively in principle, governments “can compel their citizens to bear risk. The ability to compel has a disadvantage: governments can fund harebrained ventures, giving their citizens no choice but to bear the risks” (Ibid 2007: 66). The ability to compel can reduce the asymmetry of information, Government can get information that firms and private insurers cannot. Thirdly, Ability to Subsidize Lending as the manager of the state budget enables Government to subsidize the loan (support the interest payment or guaranteeing loans). Fourthly, Role in Redistributing Resources They can coercively redistribute resources between citizens by making new policy that enforces the citizen to redistribute resources. Lastly, Limited Sensitivity to Financial Incentives The government official did not have direct financial incentive if the policy that they are made are successful or not, therefore they will have a neutral decision.

### ***Risk in Toll Road***

Based on Guidelines of Toll road investment risk publish by Ministry of Public Works (MoPW) in 2005 there are four categorize of risk:

#### **Project performance risk consists of:**

- a) The risk of planning, these risks appear/occur at the planning stage, for instance, occur in the feasibility study of the project that the risks was initially estimated turns out several assumptions are not met. There can also a sudden change in the location of the project that will decrease the FIRR.
- b) Implementation risks, namely the risk that occurs during the execution of the work (construction) such as the escalation of costs, which is the risk that the agreed for the project implementation is insufficient, causing extra costs during implementation. Delay, for example, the risk that the estimated job execution time is insufficient so that it will delay the toll operations schedule. Technology, which is the risk that the technology used is not working as expected. Next is Design risk, this is the risk that toll road design does not meet the required specification.
- c) Operating risks, namely the risk that occurs during operation such as: Operating costs, is the risk that operating costs are higher than TRC assumption (mismanagement, faulty design, price increases, or unexpected cost).

#### **The credit risk of the project includes:**

- a) Market or what is commonly known as the income risk is the risk that although the existing operations can produce the required output, but cannot reach the expected level of revenue. It is caused by the lack of demand factors of the output produced, or because of the low prices to the output;

- b) Breach of contract partner (counterparty default), is a risk due to other parties involved in the project was not able to meet the obligations agreed upon in agreement with the contract;
- c) Currency exchange rates,
- d) Interest rates, is important in determining the feasibility of the project.
- e) Financing (refinancing), is the risk that the project does not get long-term loans because revenue of the cannot cover short-term loans payments.

**The risk of government (including the risk of laws and regulations) includes:**

- a) Political, namely the risk due to the political instability of such uncertainties security, economic stability and the lack of clarity of government policy;
- b) Laws and regulations is a risk due to changes in rule and regulations such as changes in legislation and regulations, including policy which could affect the feasibility of the project;
- c) Foreign exchange Convertibility, namely the risk where the local currency cannot be exchanged for foreign currency in order to pay the debt, causing failure of a fulfillment of payment obligations.

**The risk of force majeure consists of:**

- a) Natural disasters, such as earthquakes, floods, volcanic eruptions, hurricanes, etc. the impact on ongoing projects;
- b) Force majeure politics, namely the risk due to the political uprising that impact on project operations and financial condition. Included in this category is a risk due to the war, rebellion, revolution, terrorism, mass strikes, disruption of public security, etc.

In this guidelines also provide the analysis in the level of risk in toll roads (GoPW 2005). Level of risk based on an equation of investment risk factors, which defined as a risk factor equation multiplying the impact and probability of occurrence of risk, that can calculate using the equation below;

$$FR = L + I - (L \times I)$$

Where FR is Risk Factor (scale 0-1); L is the probability of risk (0-1) and I is the Impact of risk (percentage of price additions). MoPW already made the list of probability and Impact value in the toll road (appendix I). Based on the risk factor value the guidance categorized into three level (High, Medium and low), which it can be explain in the table 1 below

Table 1. Risk Categorization

FR Value	Categorize	Countermeasure
> 0,7	High Risk	Develop strategy planning to reduce the risk
0,4 – 0,7	Medium Risk	Necessary to improve risk management within a specified period
< 0,4	Low Risk	Improvement measures wherever possible

Source: MoPW, 2005

## C. Government Guarantee

Government guarantee means that the Government they have the agreement with toll road company to bears some or all of the risks of a project, “other than as a shareholder, creditor, customer, or taxes of the project.” (Irwin, 2007: 1). “The use of this facility is to help persuade private investors to finance new infrastructure...” (Ibid 2007: 1). Guarantee itself can be delivered not only by Government but also from private finance for example International Bank and the International Development Association.

Referring to Delmon (2007) and Jain (2014) guarantee will give benefit to either Government and the private sector. For Government it will catalyse private financing in infrastructure, provides access to capital markets, facilitates privatizations and public-private partnerships, reduces government risk exposure by passing the commercial risk to the private sector, improves the impact of private sector participation on tariffs, encourages co-financing. For private sector it will have benefit. Firstly, mitigate some risk that outside the controls of the private including political risk. Secondly, to improve financial viability, sustainability, and bankability. Thirdly, if there a breach in contract private sector does not have to bear all the damage, this facility will also make the government facing the consequence. Fourthly, reassuring the commitment of minimum revenue that government forecast. Lastly, reinforced government undertakings.

Since the limitation of IIGF capacity, not all risk can be guaranteed by the Government; therefore, GOI is facing the difficulties in determining which risk should be cover and the mechanism for concession contract. One of the example if the private sector asking to provide the guarantee to cover mitigate political and regulatory risk which to ensure that the rules will not change. In other words, it will reduce chances of the Government as regulator to respond new innovation and information also it can create unfair competition within the PPP business (Romero, 2015).

However, one perspective that should be the considerations is the budget capacity that because in Wibowo et al. (2012) study mentioned government guarantee would give GOI the possibility of future liabilities. He also concerns not only that the liabilities will bloat and exceeding the government’s balance sheet but also because the nature of the government guarantee that covers from the

beginning until the end of the project there is a possibility of sudden claim due over a short period. If the GOI is unable to provide enough fund to pay the claim, the PPP project will fail. Hence it will decrease investor trust in Government also they tend to withdraw from the similar project (sector, area, etc.) (Xu et al., 2014). Another consideration by using the Government Guarantee facility means that TRC has to pay the upfront fee<sup>2</sup> and recurring fee in every six months which it will be charged to the toll tariff (higher tariff). In Sobhiyah et al. (2009) research concern if the project has too many guarantees provided by the government would increase project financing cost, only the consumer with highly capacity could use the infrastructure. He also mentioned for making the project feasible and creditworthiness there should be sufficient guarantee, it will help the company loan repayment especially during the early years.

## D. Institutions

Hodgson (2006: 13) define “*institutions* as durable systems of established and embedded social rules that structure social interactions, rather than rules as such. In short, institutions are *social rule-systems*, not simply rules”. With the embeddedness in social rules were “both informal constraints (sanctions, taboos, customs, traditions and codes of conduct) and formal rules (constitutions, laws, property rights) (North, 1991: 97), “even if good formal rules are borrowed from without, tension may be created since indigenous, informal rules are inert and difficult to change. As a result, a borrowed institution may be neither enforceable nor functional” (Aoki, 2001: 1-2). Hodgson (2006: 13) also point out “Rules do not have the capacity to copy themselves directly; they replicate through other psychological mechanisms... Rules generally work only because they are embedded in shared habits of thought and behavior”. But in the real world as Polski and Ostrom (1999: 5) mentioned “When facing real policy imperatives, it is tempting to take a successful policy model as a kind of blueprint, and apply it broadly, designing new policies according to this blueprint” which he argues that it is may not work in a different political-economic setting.

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<sup>2</sup> ‘A fee paid before a good is produced or a service is performed. The upfront fee is generally a portion of the total fee that the buyer must pay’. (Farlex Financial Dictionary 2012)

## **Chapter 3 Toll Road Development in Indonesia**

### **A. Toll Road in Indonesia**

Based on Government Regulation number 15 the year 2005 on Toll Road, Toll road has different specification with the artery road in Indonesia; it has more safety and comfortable. To use the road, vehicle user has to pay the amount of money.

For toll road planning policy, it will ratify by the Minister of Public Works and Housing that will last for five years. This planning is consisting of toll road networks plan and strategic plan to achieve it. Directorate General of Highways (DGH) is responsible for making the Master plan and pre-feasibility study of toll road development, and it will incorporate in General Plan of National Road (Rencana Umum Jalan Nasional). Furthermore, along with the Toll road authority (BPJT) DGH also conducting the financial analysis, feasibility study, and environmental assessment.

Next step is to publish toll road project to the market through PPP Book; it will provide the potential investor the information on available infrastructure investment in Indonesia. In order to be registered in PPP Book, the Minister has to propose their project to Bappenas with the statement about the government unit will responsible for the project preparations (planning, preparation, and transaction) (PPP Book, 2015: xi). Based on PPP book (2015) There are two cycles of PPP project which is the solicited project where the project is proposed by the Minister and will get government support (Viability Gap Funding, Land acquisition, etc.). Another cycle is unsolicited proposal which means the investor is proposing new toll road project that did not exist in DGH. Therefore, it will not get any benefit from the government support. However, in order to enter toll road business Toll Road Company (TRC) has to have 30% of the equity from the total toll road investment and the other 70% they can acquire it from the bank/financial institution debt.

Not all of the toll road project is financially feasible (low FIRR), if the project is feasible from Economics Internal Rate of Return (EIRR) which it is essential to Indonesian economic growth. For that case, GOI could build part of toll road section as government support, so that the project FIRR can improve. Once it is considered feasible (economic and financial), BPJT will tender the project to find TRC that will be responsible for toll road concession. After the toll road constructed, toll road company will operate the toll road based on the concession agreement with the government it will last for 30-50 years.

In toll road development local government plays a significant role in toll road since it is built on their land. Since the decentralization, local government has the power to deny the land permit. Therefore, the plan of the toll road will be adjusted according to the spatial plan in local government. Even though, the



toll road is a national project it still needs coordination between central and local government.

Based on the data from DGH (2012) and BPJT (2016), Indonesia first opened a toll road in 1978, when the governance in Indonesia only recognizes one institution to build and operate toll roads, namely PT. Jasamarga. Up to 1987, the number of toll roads that has been constructed using the loan and the state budget is 302 kilometres. In 1987 there is a changed in policy that gives the opportunities for other investors get into the business. With these policy change, the development of toll roads has been increased from the years 1987-2004, within 17 years the average growth rate of toll roads is 25 kilometres per year, at the end of 2004 Indonesian Government has 604 kilometres of toll roads. In 2004 there is a change in the rules which the toll road regulatory role under the MoPW. Until 2015 the growth rate of the toll road in Indonesia is 38 kilometres per years, and today Indonesia has the total asset of 984 kilometres' toll roads. Even though, there is an indication of increasing in toll road growth rate in Indonesia still it is not enough to achieve the target that has been stated in the Mid-term National Strategic Plan. In the next five years (2015-2019) GOI has to provide 1.000 km (Bappenas 2015) of new toll road which has the growth rate of 200 kilometres per year, which is double the current level.

## **B. Toll Road Policy Reform in Indonesia**

Since the first establishment of the toll road in 1978 Indonesian Government already revised lots of policies regarding attracting the private investor. These policies made to reduce the risk in investment.

Based on Davidson (2010) study from 1978-1987 for toll road development depends on PT Jasamarga the state-owned enterprise as the single operator for toll road this is one the legacy from Soeharto regime. In 1987 GOI issued the policy to reduce the monopoly on the practice at the toll road business, therefore in the same year, the government opened the opportunity to all investor in toll road market in Indonesia, but they have to collaborate with PT. Jasamarga. From 1987-2004 PT. Jasamarga has role as toll road authority. To achieve liberalization in toll road business, under President Megawati Soekarnoputri GOI issued a new law on roads (number 38/2004). This law is allowing of another investor besides PT. Jasamarga to enter the toll road market (market-based competition).

Davidson (2010) also mentioned that several provisions in the 2004 Road Law signaled the sector's liberalization. First, the law granted the concessions by the private sector, and they have the authority to operate directly without cooperating with the state (PT. Jasamarga). Second, the law established a new toll rate adjustment mechanism. This law stated if the Toll road company (TRC) manage to fulfill the minimum standard of the toll road, it is obligatory that every two years the Government has to make an adjustment in toll tariff, with the increase

matching official inflation rates. “Since 2005, toll rates have been raised a number of times, anywhere between 7 and 25 percent” (Davidson 2010: 474). This policy is meant to reduce market risk in toll road investment.

Third, the law split Jasa Marga’s operational role from its regulatory authority, in 2005 Indonesia Government established a new agency with the name of Toll Road Authority (Badan Pengatur Jalan Tol) that take over regulatory authority. According to Davidson (2010) BPJT as regulator is under MoPW, however, BPJT’s board members (state bureaucracy, the academic community, the private sector and civil society) were choose based on the best practice that fully independence from the executive and legislative interference. With this government policy, it will transfer the of law and regulations risk to BPJT.

“A fourth element is involved the tendering process. Auctions have long been conceived as a means to inject market forces or competition into a field characterized by natural monopoly properties and long-term contracting problems” (Demsetz cited in Davidson, 2010: 474). Accordingly, the law states that the tendering should be transparent and open. Also with the new law, based on BPJT (2015) the procurement should only take four months for project preparation, Prequalification of the bidder, submission and opening bid, bid evaluation, and appointment of the bidder. The next two months is for concession agreement. Other than simplified procurement, the new procurement process also has the involving of the commercial bank as the finance institutions.

The Government of Indonesia has taken seriously to the betterment of the investment environment, for the past five years, GOI has made a big leap to “refine PPP policy and regulatory frameworks to improve the attractiveness and competitiveness of the GOI’s PPP program” (PPP Book (2013: vii). In 2010 GOI felt the importance of government support in PPP project, Presidential Regulation 78/2010 were established to provide government guarantees for PPP project, and IIGF is formed to manage guarantee funds. The MoF issued two regulation relating to the mechanism for government support the first one is the procedure for requesting and providing government guarantee in law 260/2010, whereas PMK 223/2012 regulates the Viability Gap Fund;

Land acquisition has been a big problem in Indonesia, many of the toll road development did not finish or stagnant because of the land problem. Before 2012 land acquisition cost is included in the toll road investment which means that private sector has to provide the money to acquire the land, this regulation is not effective since the price of land are very fluctuated in Indonesia, and the investors cannot provide the amount of money due to the price changing. In 2012 Indonesian Government publish two new land regulations (Law 2/2012 on land acquisition and Presidential Regulation 71/2012 for its implementation) that for Public infrastructure, land acquisition become the responsible of the Government including toll road. This new law is also making the durations of land acquisition more precise if the government cannot acquire the land after three years they have to adjust the location of the project. This policy is trying

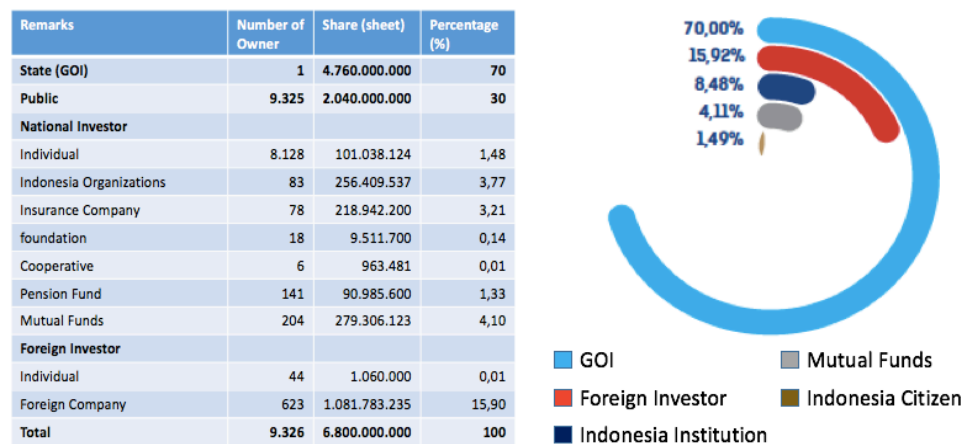
to reduce the performance risk by giving the certainty in the implementation phase.

### C. Toll Road Company (PT. Jasamarga)

As refer to PT. Jasamarga website (Jasamarga, n.d.a), based on Government Regulation No. 04 of 1978, the Government established PT Jasa Marga (Persero) Tbk. On 01 March 1978 PT. Jasamamarga not only has the primary task to develop and operate toll roads but also they had the responsibilities as a toll road authority and continued until early 2004. The issuance of Law No. 38 of 2004 along with the issuance of Government Regulation No. 15/2005 changes the toll road business mechanism. With the formed of BPJT as the regulator, therefore PT. Jasamarga was giving back the authorization function to the Government. Consequently, the Company fully functions as a toll road operator and developer.

PT. Jasamarga as a state-owned company was privatized in 2007, and after ten years they will go public in August 2016, but from the legislative, they agreed with the privatization if the Government still has 70% of the shares. As shown below the share composition from 6.8 million shares 70% are belong the GOI and the other 30% owned by the public with the highest ownership from the foreign investor of 15,92%.

Figure 3. PT. Jasamarga Shareholders



Source: Jasamarga, 2015a

By owning 70% of the share, GOI is implementing partial privatization<sup>3</sup> into PT. Jasamarga, in 2007 according to the result of General Meeting of Shareholders the Board of Commissioners<sup>4</sup> will have six members (one Commissioner

<sup>3</sup> Partial privatization, the shares of the firm are traded on the stock market while the firm remains under government control and subject to political interference. (Gupta, 2005: 987)

<sup>4</sup> Commissioners task based on PT. Jasamarga decree, KEP - OO113/IX/ 2007: a. Oversee all policies that implemented by Board of Directors and advise the Board of Directors regarding the development plan, the work plan, the annual budget, the implementation of the

as chairman, three Commissioner and two Independent Commissioner) (Jasamarga 2009). In 2015, PT. Jasamarga Board of Commissioner members consists of Four Commissioners from the Ministry (MoF, MoPW, Ministry of State Owned Enterprise and Ministry of State of Secretariat) and the other two independent commissioners from National Company (PT. Roda Pembangunan Jaya) and Special Staff of Legal Affairs for Minister of State Secretary as the Chairman (Jasamarga, n.d.b). Ideally, there should be balance in the commissioner composition, although from six commissioners five are from the Ministry. In other words, when related to the principal-agent theory, both the principal, and the agent are government, GOI act as regulator and shareholders since they have 70% of the share. Therefore, GOI has the same information PT. Jasamarga (or they can ask for the information) that will eliminate the asymmetric information. It gives GOI control over PT. Jasamarga and can directly impose their interest.

Based on DGH (2012) In term of PT. Jasamarga modality, in the end 1987, as stated before GOI are been able to made 302 kilometres, and it is all operated by PT. Jasamarga. In 1987 there is a changing of the role for PT. Jasamarga not as a single investor in the toll road business and they have the authority to determine (procurement) which toll road investor can develop the Toll Road. Until 2004, even though the Toll Road Business market opened to other investors, PT. Jasamarga dominance in toll road business remains. They still become the biggest toll road by operating 78% (473 kilometres) of toll roads. Again with the policy reform in 2004 PT. Jasamarga is more focus on Toll road development and investor, in fact, in the past ten years, 15 out of 19 new tolls are operated PT. Jasamarga. They manage to operate more than 60% (624 kilometres) of the total toll road in Indonesia (984 kilometres), they even become the winner in four out of six tenders were held in the past two years (BPJT 2016: 30-36), it is almost like PT. Jasamarga Monopolized the Toll road sector. With this modality of 624 kilometers of toll road conclude that PT. Jasamarga has a significant role in toll road development in Indonesia not only as the operator but also as the developer.

In its development, PT. Jasamarga has secured the relationships with state-owned banks one of the examples that they have cooperation for e-toll card payment, even though the tender is won by the foreign bank but for synergy reason, GOI has to approve the PT. Jasamarga decision to cooperate with the state-owned bank (detikFinance 2012). With the experience of 38 years in the toll road, PT Jasamarga itself already has the big name in the toll road company they mentioned that if they received loans from the state-owned bank, they would have special privilege. The other privilege being a state-owned company, as an alternative to funding, PT. Jasamarga is able to make another state-owned

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Articles of Association, the decision of the AGM and the legislation in force; b. Carry out the duties, powers and responsibilities based on the Articles of Association and the resolution of the GMS; c. Implement the Company's interests with regard to the interests of the shareholders and is responsible to the General Meeting of Shareholders; d. Verifying and signing the annual report. (Jasamarga 2009a)

company (PT. SMI) becoming their shareholder and until now there only one project with this collaboration (BPJT 2016: 92).

By understanding the history of PT. Jasamarga, it can be seen that they already played the role as regulator, developer, and operator for toll road development in Indonesia. Therefore, they have an advantage from their experience as a regulator they knew the mechanism of the procurement process. With the modality of more than 50% of toll road in Indonesia, PT. Jasamarga itself has become the biggest toll road company in Indonesia no wonder that it has sort of privilege in the financing institutions.

# Chapter 4 Government Guarantee of Toll Road in Indonesia

## A. Government Guarantee in Indonesia

As mentioned in the problem statement, in 2011 at least 24 toll road in Indonesia are stagnate because commercial Banks are not willing to finance the project. This issued indicate that GOI has to increase the creditworthiness of the toll road project. Based on study conducted by Rulliadi in 2014, actually this issued has been emerge in 2007 where World Bank (the Bank) Proposed Guarantee Fund mechanism to increase creditworthiness of Toll road projects. He mentioned that according to the Bank, a guarantee fund is a fund with 'liquid assets that can be rapidly mobilized in the event that a contingent liability is realized...'” (The World Bank as cited in Rulliadi 2014: 2) The Bank clearly stated that this fund should be manage by non-state institution because the state budget system is difficult to adjust (need approval from the legislation) and it is not liquid since the allocation has been determining one year before.

Rulliadi (2014) also stated that Indonesian Government also sees the urgency of establishing the Government Guarantee Fund, for this reason in the same year after the Bank proposed the idea, guarantee fund became the priority in Indonesian government policy. It listed as a key target in Presidential Instruction 6/2007 and continued by MoF in mid of 2007, they launched policy paper and became their key target. It can be seen that in just two years Indonesia Infrastructure Guarantee Fund as a State-owned company were formed to manage guarantee fund, it has own balance sheet outside the annual budget cycle, independent and run by professional. “IIGF was founded under dual mandates as a separate entity providing financial guarantee to private investors and as a fiscal risk manager” (Ibid, 2014: 11).

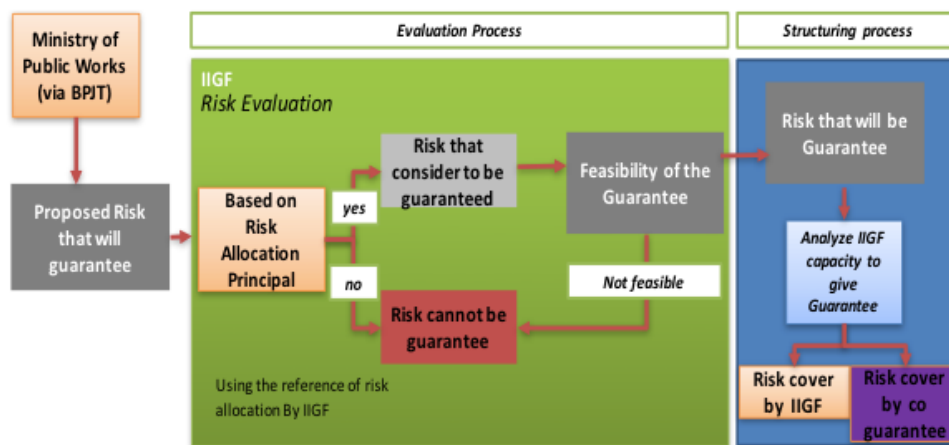
“IIGF was established as the response of the GOI to the need for adequate assurance against the political risks inherent in infrastructure investments. This assurance is expected to increase the participation of private sector in developing infrastructure through Public-Private Partnership (PPP)” (IIGF as cited in Kurniawan 2014: 23). As stated on their website (IIGF 2016c) they have four objectives firstly, to improve creditworthiness and quality in PPP; Secondly, improving the governance and transparency of guarantee provision; Thirdly, facilitating the agreement for contracting agency; lastly, securing Government unpredictable liability and minimizing sudden shock to State Budget. The establishment of IIGF at least will eliminate one of the Wibowo et al. (2012) consideration regarding the sudden shock in the state budget, but the excessive of guarantee still make the GOI liabilities higher.

## B. Mechanism and Implementation of Toll Road Government Guarantee

Government tries to perceive the risks in Toll Roads development by making a new policy (Government Guarantee), in this sections will explain the Government Guarantee mechanism, what risk they guarantee, the triggering event, in which period the risk occurs and what is the implication to the private sector.

The guarantee mechanism as shown in Figure 4 started from MoPW (via BPJT) decided which project should be guaranteed and what kind of risk that will be guaranteed by the IIGF. Next step is IIGF will proceed the evaluation process; they evaluate the risk based on the risk allocations reference if the risk in the private sector realm the risk will not get the guarantee. A feasibility study is conducted by IIGF to determine which risks are feasible; then the chosen risks that are feasible will be guaranteed by IIGF as long as they have the capacity to cover it. The guarantee will cover 15 years of the toll road operations and to use this facility TRC has to pay upfront fee (+ 0.33% - 0.67% of the project debt) after the financial close and TRC also have to pay recurring fee of 0,76% - 1,83% of the project debt every six months until the guarantee period finish (IIGF 2016b: 22).

Figure 4. Government Guarantee Mechanism



Source: Indonesia Infrastructure Guarantee Fund, 2016b

For toll road project in Indonesia there are only six risks that guarantee by the government (IIGF 2016b); land acquisition, tariff adjustment, ramp up period, social and political risk and terminations cause by default by the Government and force major.

For land acquisitions it is divided into two events firstly is the delay of land acquisition more than six months and secondly, delay/no allocations for land acquisition in Government budget. This risk usually happened before the construction. If the government cannot fulfil their responsibilities, the private sector will get cash compensation with the amount of delay period times inflations times constructions cost for the delays. The government should also pay to the

private sector if Directorate General of Highways did not allocate enough money to pay the land acquisition. Next, is tariff adjustment because in some cases there a delay in tariff setting, therefore the government gave the guarantee if the delay is more than six month and private sector will get cash compensation with the formula of the difference of tariff times traffic volume times delay period.

Next risk is related to bankability for the project in ramp-up period; this risk has a trigger event if the revenue of private sector less than 70-80% of the interest expense (IIGF 2016b). The government will guarantee this risk for the first five years and will provide limited liquidity fund to cover the difference. However, the private sector will pay back the limited liquidity fund at the end of concession or clawback period with lower interest rate. Another risk is the political risk that leads to the policy and law change related to toll road investment specifically related to project revenue. There are two type of this risk temporary and permanent; it is considering temporary if the policy changed last no more than 180 days, for this risk the government will pay the private in agreement with the calculation (difference in tariff times traffic volume). For the permanent risk it should be more than 180 days and to compensate with the private, government should return the original Internal rate of return (IRR) that has been agreeing. Lastly, is termination risk this risk divided into two type termination by the government in this case government will pay 100% loan and equity that the private already spend, however, if the default is from the private sector they only get 80%. Other termination because of the force majeure, The Government only has to pay 50% of the total private loan and equity.

Table 2. Government Guarantee Coverage

Risk	Triggering Event	Financial Implications	
Land Acquisition	Delay in land acquisition process more than 6 months	Compensation (Cash) (delay period x inflations x construction cost)	
	Delays in land acquisition budget allocations	Payment of Bailout for Land Acquisition	
Tariff Setting	Delay in tariff setting more than 6 months	Compensation (Cash) (Tariff difference x volume <i>traffic</i> in delay period)	
<i>Bankability Risk in Ramp Up Period</i>	Private revenue are less than 70-80% from the Interest expense The first 5 years after the operations	Providing limited liquidity fund to cover the difference	
Political Risk	Change of Law Government policy / actions	Compensation (Cash)	
		Permanent & Temporary >180 days	Returning to the original IRR rate
		Temporary ≤180 days	Tariff difference x Volume <i>Traffic</i>
Terminations	Termination from Govt. / Private	100% (debt + equity)	
	Force Majeure	50% (debt+ equity)	

Source: Indonesia Infrastructure Guarantee Fund, 2016b

In the implementation of Government Guarantee, this paper showed the perceptions from the private sector and the government. First is the foreign contractor<sup>5</sup> apparently they did not know any information about the government

<sup>5</sup> Interview with One of the Korean Contractor (2 August 2016)



guarantee this could be the Indonesian government did not give much information to the foreign investor.

Next from the Director in PT. Jasamarga Pandaan Malang (the subsidiary company of PT. Jasamarga Tbk.)<sup>6</sup>, mentioned that government guarantee is a one way to eliminate the risk and apparently those risks that were guaranteed are also concern by the commercial bank in Indonesia. He said that even though we are the subsidiary company of the biggest toll road company in Indonesia still bank will see who the person behind PT. Jasamarga Pandaan Malang and the commercial bank will not consider it as a government project. Therefore, they will be applying same credit policy which is; this project is a high risk, long term loan, huge investment and it is going take while (at least 5-10 years) to gain positive cash flow. He said with the government guarantee; the bank will consider the project as a government project and all risk that bank finds such as land acquisition, ramp up period, and other will be guaranteed by Indonesian Government through IIGF. Which means that this facility is more like a requirement or "thick in box" for the project to receive the financing from the Bank. The commercial bank itself did not have any influence on reducing the risks in toll road development, and they are more concern on how TRC pay their debt plus the interest. For the project that is using the government guarantee, at least bank know that their investment is saved, even though the TRC cannot pay there will be GOI to back up the payment.

On the contrary from the Business and Development in PT Jasamarga Tbk.<sup>7</sup> felt that it is not necessary to have Government guarantee. Furthermore, he mentioned because PT. Jasamarga is the biggest toll road company and has the most experience in toll road business they already have ways to mitigate all the risk in Government guarantee list. By mitigating indicates that they have a relationship with the other stakeholder that have the capability to control the risk for example they can cooperate with the regionally-owned company to ensure local government committed to the area development according to regional masterplan.

In Pasirkoja Soreang project private can choose either using the government guarantee or not in tender process and PT. Jasamarga chooses to not used that facility it is simply because they do not need it. For example, he stated for the traffic risk (ramp up period) they already calculated that the project would not have positive cash flow in the first five years. I quote<sup>8</sup> "Ok, we have good cash flow in the first five years if we used those facilities, but in the end, our revenue is still the same, so why would I take those facilities." Giving these facilities (ramp up period) to PT. Jasamarga is not effective to mitigate bankability risk since they already have enough modality to subsidize the underperform toll sections. By using this facility, it only giving them additional burdens; they have to

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<sup>6</sup> Interview with The Director of PT. Jasamarga Pandaan Malang (4 August 2016)

<sup>7</sup> Interview with PT. Jasamarga in Business and Development (22 August 2016)

<sup>8</sup> Ibid 22 August 2016

deal with two institutions; commercial bank and IIGF resulting the increasing of transactions cost. Another consideration is they never sue the government, and they do not want to sue the government he said “there is always a way out to every problem and suing is not one of them, right now we still need the government and the government still need us”<sup>9</sup>. This statement proved the concern of Romero (2015) that the TRC are tended to avoid taking legal action and they rather renegotiate the agreement with GOI that will benefit to them.

From the government perspective, they all (Toll Road Authority<sup>10</sup> and IIGF<sup>11</sup>) agree, that government guarantee function is to attract the private sector to invest in toll road project. The Head of Toll Road Authority added this policy is one way to fixed toll road business in Indonesia; the private will get transparent information and certainty of project implementation in other words he wants to provide better investment climate in Indonesia. Because with the demand of toll road development, however GOI did not have that kind of money and private sector will provide it to the government. Even though, PT. Jasamarga has significant modality, but they still have limitation for providing the equity for 3.000 km of Toll Roads. One of the problem in the PPP project in Indonesia is there is only few TRC are in the Toll Road business, by Introducing government guarantee GOI assume that it will reduce the risks that not in the control of TRC. Therefore, it will attract a new investor that does not have the privilege like PT. Jasamarga to enter the toll road business and it increases GOI options that lead to more competitive market.

### **C. Stakeholders Mapping**

There are several stakeholders that directly related to Indonesian Government Guarantee; Toll Road Authority, MoF, IIGF, Toll Road User, Commercial Bank and Private Sector (TRC). Although, they have the significant role there also other stakeholders that involve in the toll road development such as, Local Government and Land Owners. The chart below can show where is the role of stakeholder that directly related to guarantee transactions.

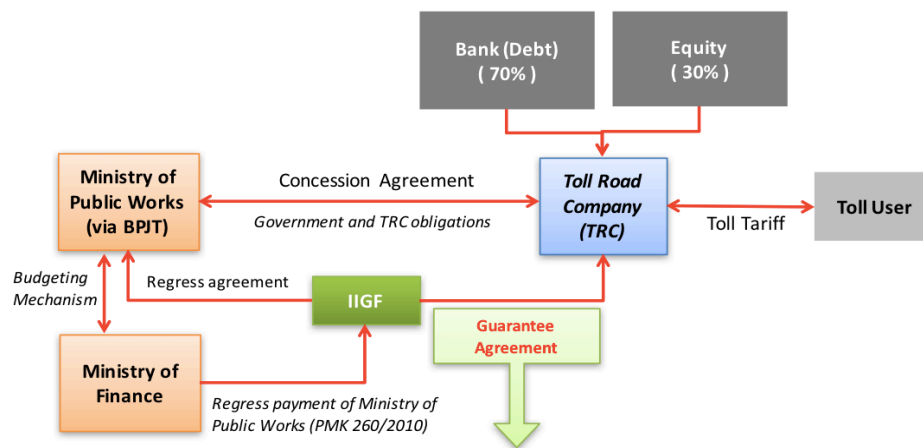
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<sup>9</sup> Ibid 22 August 2016

<sup>10</sup> Interview with The Head of BPJT (25 August 2016) and The Deputy Director for Toll Road Investment Division in BPJT (24 August 2016)

<sup>11</sup> Interview with The IIGF staff (16 August 2016)

Figure 5. Structure of Guarantee Transaction



Source: Indonesia Infrastructure Guarantee Fund, 2016b

### Rules-*in-use*

DGH is responsible for planning and budgeting in road sector including the toll road. Toll Road Authority itself has to obey the planning that DGH made, but they have the authority to determine if the toll road project should be guaranteed or not and what risk should be included in the guarantee scheme. However, not all the risk can be cover by IIGF it depends on the result of risk feasibility study. MoF plays an important role because they give the compensation through regress agreement if there is a claim from the private sector. If it is necessary, to pay the compensation MoF can reduce the budget for MoPW which it will implicate to the DGH budgeting. TRC is the one who is developing, operating and maintaining the toll road, and the consequences are they have to deal with all the risks. Even the TRC did not have the amount of money needed to build the toll road. This is when the commercial bank come and they will give loans to TRC, the maximum of 70% of the investment cost. Toll road users have a significant role they will provide income to the TRC, but they tend to avoid toll that expensive it related to the ability to Pay and Willingness to pay, either Government or TRC cannot force them to used toll roads.

Outside the Guarantee structure, two stakeholders have significant in toll road development. Firstly, the local government they have the power to issue the permit for toll road locations. Secondly, land owner this stakeholder is the most difficult to deal with, some of the citizens felt they became the victim of every infrastructure development, but often they try to gain maximum benefit from the land selling.

### *The Action Arena*

There are many stakeholders with different interest related to Government Guarantee. The variety of relevant actors, in this case, can be identified as follows:

- BPJT, they are the leading actor in implementing the government guarantee. In order to fulfill the toll road development target from the DGH, BPJT together with DGH promote the project by introducing guarantee scheme to diminish the investment gap.
- Commercial Bank, one of the reason government guarantee established is because they felt that toll road investment is not creditworthiness. With this facility, it will increase the bankability of the project. Therefore, they would not hesitate to give 70% of debt to the TRC.
- Directorate General of Highways, together with BPJT they are the main actor in toll road development they have a responsibility make planning and budgeting for the road sector not only for the toll road sector
- MoF, they have a crucial role with the Ministry to make regress agreement that will be the basis of guarantee payment. Every year they will decide how much the budget allocations for road sector and there is a claim they will take it from the ministry budget.
- Toll road user, the revenue of TRC is depended on the toll road users since the PPP promote “user fee for service” there are two points that will be considerations for the user first is the fee it depends on the willingness to pay, they tend to avoid toll with the high tariff. Next, is the additions in service if the toll road is not giving significant effect in reducing the travel time they rather use the existing road.
- Toll Road Company, they have the capacity to build the toll road from the engineer to the equipment, but they did not have enough equity to build it. Therefore, they have to cooperate with financial institutions to cover the margin in equity. In order to gain revenue, TRC can reduce the cost by introducing new technology that more efficient to build and maintenance the toll road or they can increase the income by giving incentive (lower tariff and better service) to the toll road user.
- IIGF, is another key factor in government guarantee, IIGF has the responsibility to analyze the risk that has been proposed by BPJT they can determine which risk is feasible to be guaranteed by GOI. IIGF as a state-owned company they also have a task to protect GOI not to be claimed by the TRC.
- Local Government/authority, as the legitimate leader in the area they have the power to issue the land permit to build the toll road, they also have the authority of exercising the land used law. Without their permit or the toll road project is not in their spatial plan they can refuse to acquire the land.
- Land Owners, they intend to get receive maximum revenue from the land price.

Table 3 below will explain more, with the actor analysis it shown the potential conflict among the stakeholders and it can be the foundation to define policy alternative (Thissen 2013: 86).

Based on the analysis, it can be concluded that DGH has the target to connect toll road (+ 3.000 km), the need for the government guarantee to reduce the risk of toll road development is crucial. However, there is a possibility of a negative response from the future leader in DGH, if all toll road projects are using government guarantee it will increase GOI liabilities to the TRC and if there a claim there will be budget cutting in DGH. On the contrary, BPJT together with IIGF is promoting government guarantee for the new investor (TRC) because this facility will increase the project creditworthiness to get the commercial bank admittance.

Local Government and land owner has the critical role in toll road development since they have the power to determine which toll road is allowed to build in their area are or not. However, Government guarantee policy and land acquisitions are in the different arena which means it neither have any implication for accelerating the land acquisition process nor it can force the land owner to sell their land, there should be another policy or strategy in order to solve this problem.

**Table 3**  
**Stakeholders**  
**Arena**

No	Actor	Problem Perception	Objective	Interest	Cause of Problem	Resources	Position
1	Government	<u>Ministry of Finance</u> : lack of finance	making the effective and efficient budgeting	equitable budgeting	Budget allocated to build toll road and land acquisition is high	have the power to give regress agreement	looking for an acceptable compromise
		<u>Directorate General of Highways (DGH)</u> : inefficient budgeting to build 3.000 km of toll road	Achieving the target to build 3.000 km of toll road	reducing travel time by increasing road capacity and support Asian Highways	need source of funding to build toll road & land acquisition	Have the capacity to support Toll road constructions (SBOT)	will propose budget allocation to legislator to gain approval
		<u>Local Government</u> : do not have good coordination with DGH and BPJT especially for land acquisitions (land belong to local government)	Supporting toll road development especially in land acquisitions and permit	Toll road lanes are integrated with the local spatial planning	Land acquisition is difficult because there is a citizen that not agree with the toll road plan	Make permit for Toll road Project location ( <i>Surat Persetujuan Penetapan Lokasi Pembangunan</i> (SP2LP))	Have the power over land permit
2	Toll Road Authority (BPJT)	Promoting toll road to gain funding from the private sector	Eliminating funding GAP for toll road development in Indonesia and improving the toll road business to be more competitive	Gaining investment without harming the Government	Lots of project are not feasible to build by the private sector	Can revise or make new law to attract investor and proposed Government Guarantee	will lobby to legislator to get approval to change the law and can negotiate with IIGF to approve the guarantee
3	Toll Road users	Want to travel, deliver goods as much as fast as possible and have reliable road connectivity.	reduce travel time road comfort	Efficiency while travelling and delivering the goods	driver tend to avoid toll road if it has high tariff	They are the consumer that will give	support any step towards convenient driving

**Table 3**  
**Stakeholders**  
**Arena**

No	Actor	Problem Perception	Objective	Interest	Cause of Problem	Resources	Position
						income to the toll road	
4	Toll Road Company	Result of the work sometimes did not meet the target that Government give and need high return because the risk in Toll Road	to grow their business in by winning the bidding	Profit from delivering service to the consumer	Not all the TRC have the financial capacity, human resource to invest and build the toll road	TRC have the efficiency and funding to build the toll road	looking for policy which help sustain their business and reducing the risk
5	IIGF	Need to find formulation which risk should be guarantee or not since it only has limited capacity	Provide Government Guarantee and securing the GOI	not to be claimed by the private	Risk in toll road is high	Trusted by the commercial bank	Can determine which risks are included in the guarantee
6	Commercial Bank	Investment in toll road sector is consider as high risk	Give credit to the investor (maximum 70%)	Gain more profit from the credit interest	They are very careful to whom they are going to give the credit (exclude new investor)	Can give loan/credit to the Investor	Will support any policy that will not harm their business
7	Land owners	land compensation is lower than expectation	Gaining highest price for the land	best offer for land compensation	construction plan of toll road	Own the land	refuse to sell and want to obtain max price if forced to sell

Own constructed by author Source: Thissen (2013: 88)

## D. Case Study

For the case studies, this paper will explain background (cited from the PPP Book (2013) and the feasibility of Pandaan-Malang and Manado-Bitung) and relevant remarks after the findings.

### 4.2.1 Pandaan Malang

Map 2. Pandaan – Malang Toll Road



Source: BPJT, 2016

Based on Pandaan Malan feasibility study, this toll road is part of non-Trans Java network (supporting corridor) that connects the North area (Surabaya) with the south area in East Java province through Malang Regency and Pasuruan. The regional development has created the construction of houses and industries in the area is not controlled. It leads to a high frequency of pedestrian, and public vehicles caused the road congestion that disturbance and barriers to the transportation flow in the existing road Pandaan – Malang.

As stated in PPP book 2013 The objectives of this project are: improving Java transportation system, enhancing and strengthening local economic of East Java Province, not only reducing the congestion but also improving connectivity within the region by providing an alternative road. Based on the Social Cost Benefit Analysis (SCBA), the result shows that project has EIRR of 20.14%, which it is more viable compares to the discount rate 10%. The realization of North – West corridor will stimulate the economics growth in the south of East Java, as it will make an alternative road that connects the eastern area of the province with the Surabaya.

The road section designed for 37.62 km, From North to West region passing the Purwodadi Regency, Malang Regency, and Malang Municipal. This toll road project will require the investment of 5,97 trillion rupiahs with the land acquisition cost of 1,35 trillion rupiahs. PT. Jasamarga collaborated with PT Pembangunan Perumahan, and PT Sarana Multi Infrastruktur (PT. SMI) formed PT. Jasamarga Pandaan Malang as the subsidiary company.

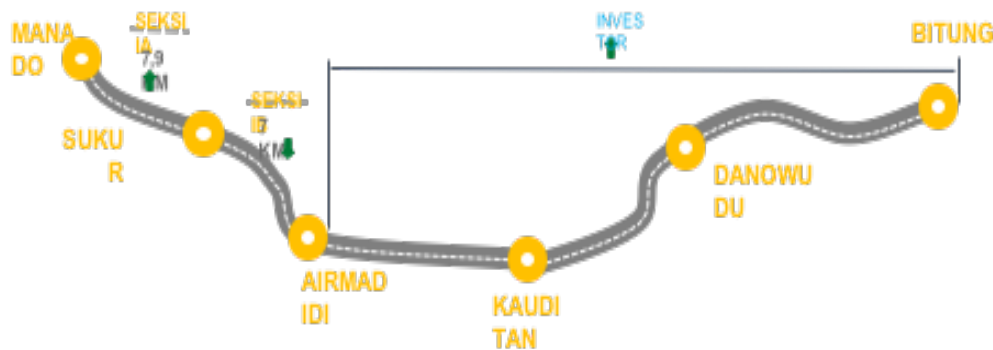
Furthermore, based on the agreement with BPJT, they will have 35 years of the concession period with the tariff of 750 rupiahs per km (BPJT 2016). Land



acquisition has been started on 2014 and after a couple of years (2016) the progress is 27,69%. However, the Government promises that it will acquire at the end of 2016. This toll road has a good forecast of traffic with 31.912 vehicles per day. This project uses Government guarantee facility; there is six major risk that will guarantee by the government.

#### 4.2.2 Manado Bitung

Map 3. Manado – Bitung Toll Road



Source: BPJT, 2016

The government plans to develop metropolitan area in North Sulawesi which called as Bimindo (Bitung-Minahasa-Manado). Bitung itself is one of the Indonesian Special Economic Zone (SEZ), it will become the strategic area for national and international trading. The Government planned to build Bitung seaport as the International hub connecting East Asia and Pacific Region. Thus the toll road development will support the establishment of the Bitung SEZ also the metropolitan area. Toll road development will help to accommodate high traffic demand in North Sulawesi road network in the future.

In PPP Book 2013 stated that the objectives of Manado-Bitung Toll Road project are as following: Firstly, to improve inland connectivity by supporting Bitung seaport, secondly, to promote the tourism sector development in Bimindo, lastly to support the economic growth in North Sulawesi. The projects have the benefits from the margin in Vehicle Operating Cost and reducing the transportation cost by improving the travel time for the passengers. SCBA has shown the EIRR result of 26.86%, and it indicated that the project would have significant benefits to the socio-economic. The project is considered to be feasible it compared with the discount rate of 12%.

This project will link with the Manado city and port of Bitung with the length of 39.9 km, and this project consists of two parts, which are: Section 1: Manado Ring Road – Airmadidi Section 2: Airmadidi – Girian. This toll road needs an investment of 5,12 trillion rupiahs and the land acquisition cost of 0,89 trillion rupiahs. PT. Jasamarga Manado Bitung were formed by the consortium (PT. Jasamarga, PT Wijaya Karya, and PT. Pembangunan Perumahan) as the

subsidiary company. This company will have concessions to operate Manado Bitung toll road for 40 years with toll tariff of 900 rupiahs per km (BPJT 2016). From 2014 until 2016 DGH manages to acquire 31% of the land.

The Manado-Bitung project has two Government supports; first support is similar to Pandaan Malang project it has a government guarantee that also covers six major risks. Secondly, to increase the feasibility of the project, this project used SBOT as a scheme regarding the low traffic forecast only 12.376 vehicles per day. Government not only responsible for land acquisition but also has to construct two section from Manado to Airmadidi. The government has already plan to invest 2,3 trillion rupiahs for that two sections.

## Chapter 5 Findings & Analysis

### A. Risk Perception & Allocation

According to Delmon (2007) Government trying to reduce the risk for the investor (private). It is raised a question which risk should be reduced; it would not be effective to attract investor if it only focused on the risk that Government considered as high risk without taking into account the private sector perspective. Therefore, this section will provide both perception (Government and private) of risk in toll road development. Based on the interview, government official mentioned<sup>12</sup> land acquisition is the highest risk in toll road investment. It is supported by secondary data (BPJT, 2016), the recapitulation made by BPJT there are 36 out of 47 toll road project have an issue with the land acquisition problem. According to MoPW guidelines (2005) most of the land problem consist of, land availability, there was no right price for the land, rejections from the land owner (they did not know about the government toll road plan, the land is a cemetery and also the land is inherited) and too many land brokers (middleman).

Following is ramp up period for toll road is consider to be the high priority for the project feasibility. Even though toll road project is feasible for the long run but at the beginning of operation years, it has the negative cash flow. Therefore, it will affect the criteria from the bank, which the project should have positive cash flow to afford the credit payment (not bankable) this ramp up is related to the traffic in the toll road project. Next is the termination by the government, in this case, the private sector seems did not have the bargaining position with the government. The last risk that concern the government is bank interest rate for banking in Indonesia they do not have any fixed rate for credit even for public infrastructure that will have a longer period.

From the private sector's perspective<sup>13</sup>, the first risk that they can think is land acquisitions, this risk has become a scourge for toll road investment in Indonesia. Even though several risks that they mentioned are the same with the government, but they add several risks that should be considered by the government. Firstly, about the toll road construction, Indonesia only have two seasons sunny and rainy one of the contractor mentioned that they could only work in sunny seasons because they cannot mobilize heavy equipment into project site. Secondly, is about the government policy that implicated the revenue of toll road, one of the possible event happens every year that cloud trigger the policy changing is national holiday especially in *Idul Fitri*. In every *Idul Fitri* holiday

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<sup>12</sup> Interview with The Head of Indonesian BPJT (25 August 2016) and The Deputy Director for Toll Road Investment Division in BPJT (24 August 2016)

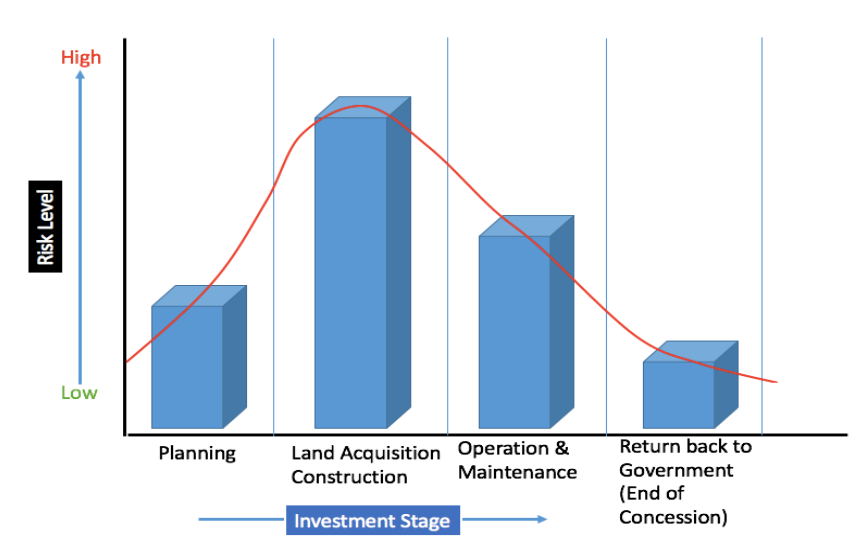
<sup>13</sup> Interview with One of the Korean Contractor (2 August 2016), The Director of PT. Jasamarga Pandaan Malang (4 August 2016) and PT. Jasamarga in Business and Development (22 August 2016)

Government gives 20% tariff discount and in 2016 the Head of BPJT provides free tariff if the queue lines are more than five kilometers (Artianti 2016). From the eyes of shareholders, this policy shown that TRC are not independent and GOI can impose the policy that will disadvantage the company. This kind of policy not only reducing the revenue that the TRC earned but it also has an impact on the share price and that what concern the most<sup>14</sup>.

Thirdly, private sector indicated that the government should consider the masterplan / networks in the region, many of the toll roads purposes is to connect two regions or special economic zone. PT. Jasamarga will not have to worry about the traffic volume in toll road project as long as the government has the commitment to develop the hub or area that connected by the toll road. Next is tariff setting; this is depending on Minimum Service Standard issued by the government, but there are several cases that even though they already meet the standard they still have delays in tariff adjustment. Lastly, force majeure it should be allocated in government risk but for some cases, government delegated the risk to the private sector. For instance, in Lapindo Mud case; in 2006 disaster occur in East Java which is the mud flooding on the highway, this case happened in East Java and disconnected the Porong – Gempol toll road. Even though the parliament already determined it as the national disaster but until now the toll road is still sunken by the mud and TRC did not receive any compensation from GOI, in fact, they have to build an elevated toll road as the replacement.

PT. Jasamarga (Nawangsasi 2014) already have the risk level in toll road investment stage to show which risk that they are concerns the most.

Figure 6. Risk Level in Toll Road Investment Period



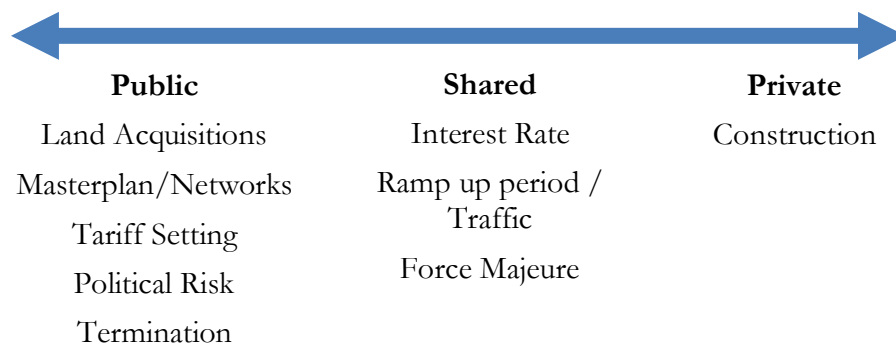
Source: Nawangsasi, 2014

Based on PT. Jasamarga experience and research in 2014, they already made risk allocations in toll road investment they stated that there are nine major risks.

<sup>14</sup> Interview with PT. Jasamarga in Business and Development (22 August 2016)

The difference with the list before, they changed termination risk with operation and maintenance (O&M) cost risk. PT. Jasamarga (Nawangasasi 2014) stated; land acquisition, networks, tariff setting, social politic and force major categorized as government responsibilities. Therefore, risk such as construction, traffic volume, O&M, interest rate and also force major as in private responsibilities. This is in line with the risk allocation theory where Risk should be allocated to the stakeholders that have the capability to control the event (Abednego and Ogunlana, 2006). To add from the perspective of the Government based on reference Guidelines of Risk Allocations issued by the IIGF in 2016. This figure provides an overview of risk allocation in toll road business.

Figure 7. Risk Allocations



Own constructed by author Source: Nawangsasi (2014) and IIGF (2016)

Table 4. providing the summarize information's of Perceptions, Categorize, Level and Allocations of Risk by combining the interview result, MoPW and IIGF guidelines. As shown on the table below at least there are nine risk in that consider to be the top priority in the toll road project. Furthermore, not that the Government not aware of the other risk they do not mentioned (Construction, Political Risk, Masterplan/ Networks, Tariff setting and Force Major) they just felt they can control that risk, therefore they not considered it as high risk which is proven from FR Value<sup>15</sup> and for the constructions risk it is all in the hand of private sector. As mentioned before private add five risks that they are concern. It is relevant to the table below because three out five risks are categorized as risk of government also the risk should be shared or bear by the GOI. For this reasons, no wonder if the private sector wants to include the four risks into Government Guarantee.

<sup>15</sup> Using the risk factor equations ( $FR = L + I - (L \times I)$ ), FR resulted in the level of risk in Table 4. and for the L and I value used appendix I; where Land Acquisition: Land Acquisition Value; Ramp Up Period: Debt Return value; Termination: Force Majeure Value; Interest Rate: Interest Rate Value; Construction: Weather Value; Political Risk: Toll Revenue Value; Masterplan/Network: Estimated traffic volume Value; Tariff Adjustment: Tariff Adjustment Value; and Force Majeure: Disaster Value.

**Table 4. Perceptions, Categorize, Level and Allocations of Risk**

No	Risk	Perceptions		Categorize (MoPW Guidelines)	Level of Risk		Risk Allocations (IIGF Guidelines)
		Public/Government	Private		FR	Categorize	
1	Land Acquisition	√	√	Project performance risk	0.91	High	Government
2	Ramp Up Period	√	√	Credit risk	0.72	High	Shared
3	Termination	√	√	Project performance risk & Credit risk	0.61	Medium	Government
4	Interest Rate	√	√	Credit risk	0.75	High	Shared
5	Construction (Weather)	X	√	Project performance risk	0.64	Medium	Private
6	Political Risk (law and new policy)	X	√	Risk of government	0.58	Medium	Government
7	Masterplan/ Networks	X	√	Project performance risk & Risk of gov- ernment	0.66	Medium	Government
8	Tariff Adjustment	X	√	Risk of government	0.70	Medium	Government
9	Force Majeure	X	√	Force majeure	0.69	Medium	Shared

Own constructed by author Source: MoPW (2005) and IIGF (2016)

## **B. Risk Assessments on Toll Road Investment Project in Manado-Bitung & Pandaan-Malang**

This risk assessment will focus only on the risk in risk perception and the risk that has been guaranteed by the government, three from the guarantee list and one from the risk perception. The first two are land acquisition and bankability (ramp up period) these risks are considered to be high (Table 4). The next two is political and masterplan/networks risk, even though the level of risk is medium, these risks happens to be categorized in risk of government also it allocated in government side (Table 4). For the other risks is not relevant to the guarantee system, as stated before risks such as termination and force majeure TRC and GOI always can sit down in the same room and discuss another solution (not to sue GOI). Furthermore, for tariff adjustment risk is already concluded in the toll road law that the tariff will be adjusted in every two years. For the constructions as stated before it is in the realm of private. Lastly, for the interest risk will not include in the risk assessment because two of the study case they belong to PT. Jasamarga which they already have the mitigation plan (will explain in the next sub chapter).

The risk assessment will be using the approach from Chapman and Ward, 1994, Chung et al. research in 2010 combined with risk value mechanism in IIGF (2016a) and GoWP guidelines (2005); one of the most consistent criteria to measure risk is probability. This risk assessment will show how high the probability of risk that in the Government Guarantee and suggestion by the private, might happen in the particular area.

### **1. Land Acquisition Risk**

There are three components should be considered in land acquisition; firstly, is the land acquisition progress including how many land already acquire until 2016 and when is the target for the toll road should be finished. Secondly is the number of local government that will be involved in the land acquisition process; this component is necessary since coordination is one of the problems in Indonesian Government. Lastly, is the land used that will be impacted by the toll road development it is related to the resettlement program that the government should provide.

In Pandaan-Malang land acquisition case is complicated, this toll road should be operating in 2019 and the construction should start in 2017, however, the land acquisition progress from 2014 only 27% (BPJT, 2016: 92). To acquire the land Government should take a rough path that they have to coordinate with at least six districts. According to Feasibility Study (BPJT 2009) The land that will be affected by the toll road construction consists of 54% farm, 6% settlement, 30% moor and 10% plantation. Even though, the settlement only 6% but the other 94% are the productive areas, according to land law, there are options to give resettlement either cash or the government will provide land that similar with land use to keep the sustainability life of

the farmer. From the data, it is only had 13.5% progress per year (the trend indicates, the land will ready to develop in 2019), there is a very high chance that the land would not ready in 2017.

For Manado-Bitung toll road it has the similar problem with Pandaan-Malang project in the past couple of years this project only been able to acquire 31% (BPJT 2016: 94) of the land. From the Feasibility study conducted by Dinas Pekerjaan Umum Propinsi Sulawesi Utara (2012) there will be six districts that will be affected by the construction of toll road. The land use is relatively empty; only forest and unused land except in the area near Air Madidi, this area is already developing and also crowded with people activity. It can be seen that from the progress in land acquisition and the number of area the possibility of delays in land acquisition will happen.

## **2. Bankability Risk (Ramp up Period)**

Ramp up period guarantee is one of the guarantees that GOI innovated to increase creditworthiness in the project. Furthermore, this guarantee is related to traffic risk and bank interest rate. However, traffic and the interest rate is in the realm of private risk and this guarantee not necessarily transfer those risk to the Government, at the end of their concession they will pay the amount of liquidity fund that Government spends. For this guarantee ideally that all the toll road project should have it, for instance, a toll road in Bogor ring road. This toll road operates in 2009 this toll even though, at the beginning of the operations, it already has the traffic of 18.196 vehicles/day (Jasamarga 2009b) road but until 2015 (44.408 vehicles/day) (Jasamarga 2015b) still as the subsidiaries toll road where the toll road that already has a sustain revenue need to subsidize it. This is mean that Bogor outer ring road profit still cannot cover the toll road cost (maintenance and interest rate).

For Pandaan-Malang case it already has high traffic forecast at the beginning of the operation (2019) at least 31.912 vehicles will use the toll road in one day. From the Pandaan-Malang feasibility study (BPJT, 2009) indicated that in 2024 the traffic will be 59.231 vehicles/day and from the BPJT data it shown that toll road with traffic more than 50.000 vehicles/day already become the parent toll road. To add the assessment one of the consortia is PT. SMI (PT. SMI is established as financing company and has the fund to gives credit for infrastructure project with low-interest rate) by having them as the consortium it will give the privilege of getting financing with the low-interest rate. In that case, the provision of the facility for five years is a suitable policy since they have high traffic and the low interest rate it makes the probability of revenue less than 80% of the interest rate are low.

In the next case, in the feasibility study (2012) Manado-Bitung it only has traffic forecast of 12.336 vehicles/day in 2019 it is less than Bogor Ring Road, this toll road has the same guarantee period as the pandaan malang and it would take years (more than 5 years) to reach the safe traffic threshold to gain revenue. Also in the consortium, it does not have privilege like in the Pandaan



Malang Toll so that it will have the higher interest rate. If this facility wants to increase the creditworthiness of the project, it should add more years for the ramp up period.

### **3. Political Risk**

As mentioned before there is two type of this risk temporary and permanent, and this risk is depending on the leader that related to the toll even the President himself. The more concession period that the toll road project has the most vulnerable to this kind of risk. The longest concession is Manado-Bitung toll road it has 40 years it means that company should facing at least four new President (assume that they all have two period of leadership). One of the downside is every time the leader changed they tend to make new policy rather than continuing the existing policy and sometimes it will reduce toll road revenue.

For example, in 2010-2014 when the former president Susilo Bambang Yudhoyono ruled he issued presidential decree for the Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI), this policy is focusing to build massive infrastructure such as Toll Roads, Airports, Seaports, etc. that require private investment, which means that the government improve investment climate for the investor. It can be seen that, GOI are developing the special economic zone, so it will increase the feasibility of the toll road (to be the catalyst of the traffic). By contrast, in Jokowi's era (2015-2019), he issued *Nawacita* (Nine President Visions) that completely different, that Indonesia should strengthen sea and rail transportation which it will divert the vehicle users to either train or ship because it is more convenient (no traffic jam). This policy swift will have impact to toll road traffic forecast and reduce the FIRR of the project which means that investor will refuse to invest in that sector.

### **4. Masterplan / Networks Risk**

This risk is considering important because it related to the traffic forecast, From the feasibility study (BPJT 2009) because the purpose of Pandaan-Malang is to reduce road congestion within the area, as mentioned before the traffic forecast for Pandaan-Malang is already high and they will get additions traffic every time the existing road are congested as an alternative road. On the other hand, based on feasibility conducted provisional government in 2012 the purpose of Manado-Bitung toll road is to connect Manado Metropolitan to Bitung seaport which means that this toll road is meant to generate the traffic it is proven from the low traffic forecast and if the government did not commit to finish the seaport the traffic forecast will be overestimate and it will give a loss to the company toll. One way to solve this problem according to PT. Jasamarga Tbk. is ask the local government to cooperate in toll road development by selling the share in PT Jasamarga Tbk.

“A final challenge for policy analysts and designers is to avoid taking a ‘blue-print approach’” (Korten as cited in Polski and Olstrom 1999:4-5). Policy or rules will work only they are embedded in a particular institution, therefore, government guarantee as policy may or may not function to reduce the risk if it is implemented in two different institutions (law, systems of weights and measures, also firms (and other organizations) (Hodgson, 2006; Polski and Olstrom, 1999). From the risk assessment shown that in Manado Bitung project, the risk especially for traffic is higher than in Pandaan-Malang. Next is risk in land acquisition the two cases have the different problem for Pandaan-Malang is more complex because 54% of the land that affected by the project is farm therefore GOI has to compensate the farmer by giving them new farm which it will take lots of time. However, in the two contract stated that for these two projects GOI gave the same policy that it will have the same guarantee mechanism (triggering event) also the risk item that will guarantee.

### **C. Benefit of Government Guarantee?**

As mentioned in the beginning of the paper the biggest toll road company in Indonesia are reluctant to use the government guarantee facilities, and it is confirmed after the discussant with the business development and the one of the director in their subsidiary company. This paper indicates there are five reason they see flaw in this particular policy. For the analysis it will used World Bank (Delmon, 2007) approach what should be the benefit of the facilities to the Private sector since PT. Jasamarga felt this policy did not have enough benefit for them. This paper excludes the Bank Group Safe guard since the guarantee are manage by the state owned company and they did not have access to the procurement process for toll road project.

#### **1. Mitigate some risk of lending and investment**

One of the privilege that PT. Jasamarga has good relationship<sup>16</sup> with either the Government or the other state owned company and they already know what the Government want. For example; PT Jasamarga stated that when the Toll Manado Bitung is still in the planning stage they have frequent meetings with the government of North Sulawesi. In those meeting, they have reached a decision (site agreement) that the North Sulawesi government will buy shares of PT Jasamarga and involved with the construction of Manado Bitung toll road. Since there is already an agreement with the local authorities so that they will form the first local enterprises and they could be forced to buy the share and become one of the shareholders in a PT. Jasamarga. It is done to reduce the risk of the road network because PT Jasamarga realized that they needed to increase traffic in Manado Bitung project with the developing area. With the shares in the government then they will also be

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<sup>16</sup> Interview with PT. Jasamarga in Business and Development (22 August 2016)

exposed (shares down) when traffic is reduced due to the absence of regional development.

Even though, the area development is not in their control but by choosing Local government as their consortium giving them benefit because they are who had the land or at least responsible for land used and they were able to pull out regulations to develop the area.

## **2. Mitigate Regulatory risk**

The government is obviously the one who influence the risk but they also a majority stakeholder in PT. Jasamarga, so when the government makes the policy they act as Policy recipient and policy maker they will make the policy that they are considering the priority to them and not related to commercial liability of the company. This is what happen in Indonesian Government Guarantee where the organization that will guarantee the project is also the state-owned company.

Indirectly PT Jasamarga criticized the policy<sup>17</sup> that the government does not well define the risk which is important according to Abednego and Ogunlana (2006), so there will be no adjustment after the contract signed which has happened in the land acquisition problem. They add that it should be no more spare for the government, (there is a buffer for land acquisition about one year) it should be considered before the contract signed. Because there are indications that the IIGF wants to secure Government, they make Government guarantee policies with many loopholes as a buffer that is too long, PT. Jasamarga claim that there is some adjustment even after the contract signed and they already foresee that it will be difficult if they want to makes a claim. How can the guarantee mitigate the regulatory risk if the guarantee organization make the contract skewed to protect the government?

## **3. Improve a project's financial viability, sustainability and bankability**

Once PT Jasamarga realized that one of the problems in toll road development is the bankability of the project. They figure out how to compromise with this risk by making PT Sarana Multi Infrastructur (PT. SMI) as their one of their consortium<sup>18</sup>. It is one of the advantages that Jasamarga as the state-owned company because PT. SMI is also the state-owned company. PT SMI is one of the financial institutions established by GOI to provide loans to companies that work on infrastructure. Financing facilities (BPJT, 2016: 46) that can be provided by PT. SMI are more or less same with the commercial bank include:

- a) Long Term Tenor: 25 years, with 10 years' grace period;
- b) Cash Deficiency Support: to support in the beginning of the project;
- c) Mezzanine Loan & Subordinated Loan: (Junior Loan);
- d) Equity.

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<sup>17</sup> Interview with The Director of PT. Jasamarga Pandaan Malang (4 August 2016)

<sup>18</sup> Interview with PT. Jasamarga in Business and Development (22 August 2016)

By giving PT. SMI 5% of the share (BPJT, 2016: 94) not only that they can get financing from them if the bank is not able to give it but also it will increase the PT. SMI trust for PT Jasamarga because they have access to their internal information and it will lead to bigger financing for them.

For financial viability it is depend on the interest rate that bank give to the company since PT. Jasmarga can have (lower) interest rate compare to the other toll road company these conclude that the advantage that Government Guarantee give, they already have it for some period of time and even they already have an alternative for the particular problem.

#### **4. Mitigate Risk of Breach**

One of the benefits using the government guarantee is “to limit the risk of breach and ensure that the consequence of a breach is felt by the sovereign Government” (Delmon 2007:13) or in another word they can claim to the government if there is a breach of contract. It is natural that company with a strong relationship with the government, even though they have government guarantee but their preference is to negotiate with the government rather than take legal actions.

One of the reasons why Government Guarantee facilities are not appealing to PT. Jasamarga, because in the contract stated if the IIGF or the Government did not have the money to pay the guarantee it will replace by the higher tariff and longer concession period. It is like the old time they mentioned again with the renegotiation. As stated before data from BPJT (2016) showed that 50% the toll road contract been renegotiated and most of the shareowner remained the same. Particularly for the contract before 2010, where the toll road should be operated in 2014 which means that TRC cannot fulfil the agreement. Even though the agreement has been breach rather terminate the contract, TRC tends to renegotiate the agreements with the government that favourable to them (Romero 2015), for instance, approving the extension which is profiting the TRC.

#### **5. Reinforce Government undertaking**

The government wants to make Government Guarantee because they want to make healthier toll road business by trying to level up the competitor for PT. Jasamarga. The purpose of Government Guarantee is to reinforce private entity and attract new investor in Toll road business but all of the tender winner in four of the toll road project is PT. Jasamarga, even though they did not well accept the Government guarantee concepts but they still win the tender. As I quote from the Head of BPJT<sup>19</sup> “even though we already applying this policy but the players (investor) are still the same”.

Most of the risks are mitigate with the involvement of relationship that PT. Jasamarga has, either with the government and the other state-owned company that builds from the reciprocal politic between them in the past 37 years. The

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<sup>19</sup> Interview with The Head of Indonesian BPJT (25 August 2016)

transition of the sector from the purely state-owned company to partial privatization “may reflect the governments' unwillingness to relinquish control of enterprises they consider of continued political or strategic importance” (Frydman et al., 1999: 1174). Furthermore, by owning the 70% of PT. Jasamarga shares, GOI is encouraging renegotiation the agreement to solve the problem rather than taking a policy that will harm PT. Jasamarga because if there is a loss in PT. Jasamarga, it will also harm the government.

With partially privatize PT. Jasamarga operated is a slow stage of process which the government partly liquidate some of its holding in the company retain the ownership tries to promote competition by reducing “the risk” but not in any urgent manner but rather in a stepwise manner. So that till today the transition from state own enterprise company to the private competitive sector are partial and pro longed, with in this the government guarantee serve more to procedural component than something that reduces the risk.

## Chapter 6 Conclusion

Government Guarantee facilities offer benefit for accelerating bankability of the PPP project by reducing the risk in Indonesia Toll road development. However, one of the biggest toll road company in Indonesia did not find the policy compelling to their business scheme. In this paper, questioned whether the policy of government guarantee has the impact for risk in toll road investment. The purpose of this particular infrastructure guarantee scheme is creating a better risk mitigation system that adopted the Bank best practices to benefit new investor in the future. But as of now, it is still mostly a government show, even though PT Jasamarga is privatized company it still 70% owned by the GOI make the guarantee framework more like symbolic features and not a proper institutional system where; role responsibilities and risk are divided according to the contract. In other words, as the evident from the interview showed that the preference of toll road company is not to claim the GOI but rather to negotiated the contract.

Furthermore, the need of equity requires Toll Road Company to get loans from the commercial bank there is a procedural requirement to have Government Guarantee; therefore, GOI provides this guarantee. Every project has risk, as in the case of PT. Jasamarga as a state owned company that has been partially privatizing, they have their privilege with their experience and relationship with the Government to mitigate the risk. Even where that guarantee has been provided, it is unlikely PT. Jasamarga to formally used the facilities but rather the strategy will always be, to negotiated, in the end, government guarantee is more like a procedural step rather than the substantial.

Related to risk in toll road investment, the study revealed that there is a risk gap between the GOI and the TRC (PT. Jasamarga) sector. Even though GOI and the private sector perceive the risk differently but they agreed that the highest risk in toll road development is land acquisitions in which Government guarantee is having minimal effect on reducing it. Land acquisition has the different arena which it is mainly because of lack coordination between the central and local government also with the land owner (citizen). It also depends on the law that applicable in every province (local government), and as the legitimate owner of the land they have the power to issue the land permit or not. It requires a different policy and institution approach to solving it.

In its implementation, there is a total of six Government Guarantee provided by GOI, however, from the two cases, it indicates that GOI using the “blueprint” approach where the item of risk that guarantee and the triggering event are the same. It will either have an excessive or insufficient guarantee, which it can make the government future liabilities higher and lead to degradations in social welfare. This paper also indicates that project with low traffic, especially for Manado Bitung, should have longer ramp up period, in additions the private sector perceives that Masterplan / Network risk that should be in the guaranteed by GOI considering the project sustainability. Both Government and private need to have a better understanding of the project risk, therefore they can develop more effective guarantee scheme to generate the better result.

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# Appendices

## Appendix I

### List of Probability and Impact Value

Table I.1. Probability and Impact Value Pre-Construction Phase

Risk	Probability (L)	Impact (I)
<b>Pre-Construction</b>		
<b>a. Permit</b>	0,668	0,124
Tendering process	0,670	0,217
Contract Document	0,705	0,225
<b>b. Study or research</b>	0,663	0,169
Data validation	0,679	0,256
Assumptions	0,667	0,271
<b>c. Toll road design</b>	0,488	0,146
Standard	0,521	0,236
Miss-Interpretation	0,502	0,249
<b>d. Land acquisition</b>	0,838	0,241
Land availability	0,637	0,471
Compensation process	0,830	0,449
Rejection from the land owner	0,777	0,461
To many middleman	0,809	0,444

Source: MoPW, 2005

Table I.2. Probability and Impact Value in Construction Phase

Risk	Probability (L)	Impact (I)
<b>Construction</b>		
<b>a. Financing</b>	0,591	0,134
Continuity source of funds	0,640	0,253
Interest during construction	0,627	0,262
Obligations/bond	0,558	0,253
Debt return	0,631	0,249
<b>b. Construction</b>	0,548	0,189
Site conditions	0,535	0,274
Weather	0,528	0,230
Material supply	0,470	0,216
Theft	0,488	0,170
Specification	0,512	0,258

Miss-Management	0,519	0,252
Labor strike	0,498	0,180
Schedule	0,551	0,245
Construction Estimation cost	0,567	0,276
inflation	0,709	0,307
Dishonesty	0,600	0,284
<b>c. Equipment</b>	0,437	0,116
Import	0,463	0,236
Performance	0,437	0,227
<b>d. force Majeure</b>	0,504	0,178
Disaster	0,521	0,389
Nationalization	0,640	0,364
Revolutions	0,595	0,376

Source: MoPW, 2005

Table I.3. Probability and Impact Value in Operation & Maintenance Phase

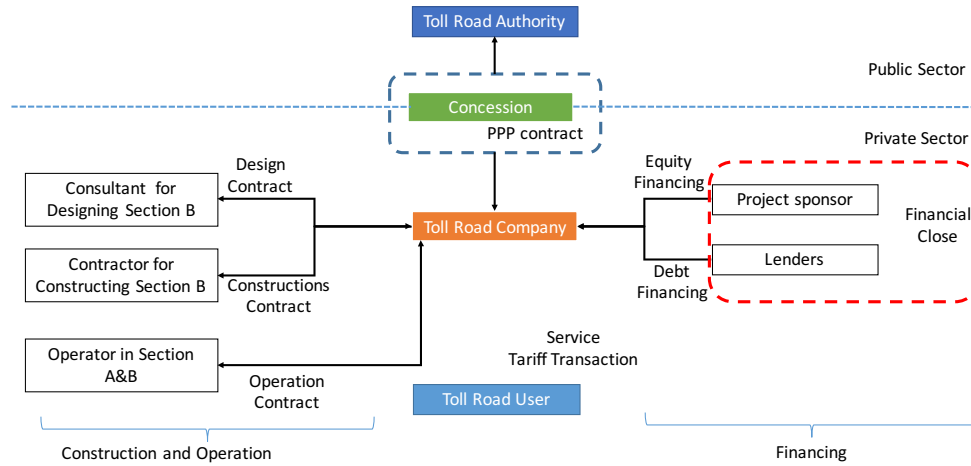
<b>Risk</b>	<b>Probability (L)</b>	<b>Impact (I)</b>
<b>Operation &amp; Maintenance (O&amp;M)</b>		
<b>a. O&amp;M</b>	0,507	0,155
System	0,477	0,198
Defect	0,465	0,253
O&M estimation cost	0,517	0,260
O&M inflation cost	0,612	0,260
Vandalism	0,567	0,222
Accident	0,495	0,162
Kabtibmas	0,616	0,204
<b>b. Toll Revenue</b>	0,520	0,132
Estimated traffic volume	0,526	0,282
The initial tariff and the tariff adjustment	0,579	0,298
Competition	0,479	0,182
Inefficiency/Corruptions	0,551	0,219
<b>c. debt</b>	0,569	0,207
Exchange rate	0,653	0,229
Interest rate	0,635	0,216
<b>d. force Majeure</b>	0,527	0,234
Disaster	0,500	0,241
Nationalization	0,600	0,259
Revolutions	0,574	0,269

Source: MoPW, 2005

## Appendix II

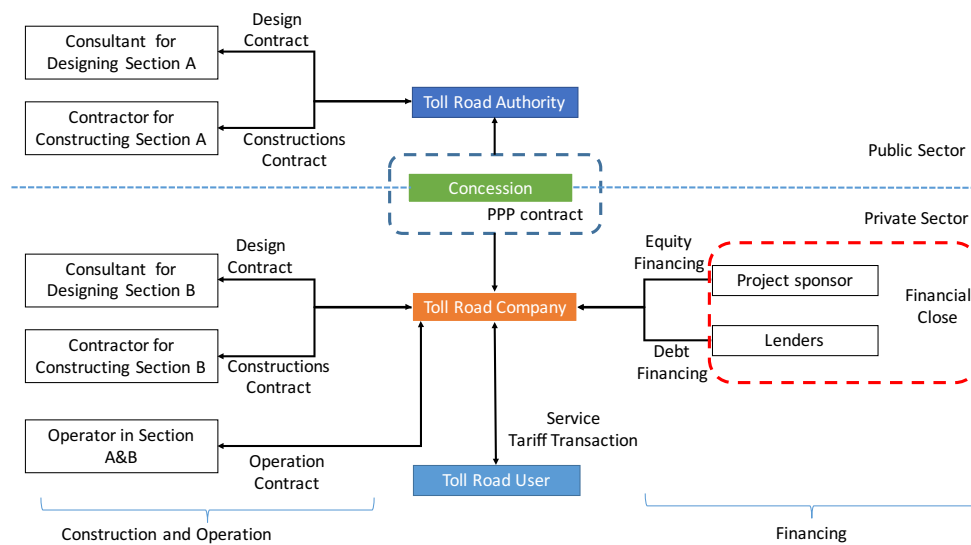
### PPP Structure (BOT and S-BOT)

Figure II.1 BOT Structure



Source: IIGF, 2016a

Figure II.2 S-BOT Structure



Source: IIGF, 2016a

## Appendix III

### List of Interview Question

#### *Interviewing The Toll Road Authority (BPJT)*

1. How do you see the investment climate in Indonesia particularly in Toll Road sector?
2. What do you think is most frequently risk that encountered in the implementation of toll road in Indonesia?
3. How do the government perceive those Risk is there any particular policy that implemented/have been done by government to reduce/mitigate it?
4. One of the policy that has been given by the Government is Toll Road Guarantee fund by the IIGF what do you think about it?
5. And there are many toll roads that did not used Guarantee fund provided by the Government, what would the Government do if those risk happen in non-Guarantee toll road?
6. (After interview with the private sector) Is there any policy to mitigate particular risk that not mentioned in the guideline made by the Government?

#### *Interviewing The IIGF (Indonesia Infrastructure Guarantee Fund)*

1. How do you see the investment climate in Indonesia particularly in Toll Road sector?
2. What do you think is most frequently risk that encountered in the implementation of toll road in Indonesia?
3. What kind of risk that has been guarantee by the IIGF and why only those risk?
4. If the Toll road implementation stop/terminate because other than the risk that have been guarantee what would the IIGF do?

#### *Interviewing The Private Sector (Pandaan Malang / Manado Bitung Toll Road)*

1. How do you see the investment climate in Indonesia particularly in Toll Road sector?
2. What do you think is most frequently risk that encountered in the implementation of toll road in Indonesia?
3. What do you think about the Government role to reduce/mitigate those risk and is it effective?
4. One of the policy that has been given by the Government is Toll Road Guarantee fund by the IIGF what do you think about it? And why this toll road decided to use those Guarantee?
5. Do you have any advice or remarks in implementation of the government guarantee on the toll road sector?