

**RISK ALLOCATION OF
FOREIGN FUNDED INFRASTRUCTURE PROJECT
A CASE STUDY IN SOUTH EAST SULAWESI**

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A CASE STUDY IN SOUTH EAST SULAWESI**

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DEDICATION

“To my beloved wife, mother, father, grandmother, and grandfather”

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Alhamdulillah. That the first thing that I want to say when I finish writing this research.

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I hope that this research can be worthwhile for anyone who read it.

ABSTRACT

The role of foreign investment in infrastructure development in Indonesia is quite significant. However, foreign funded infrastructure projects are considered as high risk business. Meanwhile, unmanaged or unmitigated risks are one of the primary causes of project failure. This research discusses risk allocation in contract clauses of EINRIP project in Southeast Sulawesi Province in Indonesia, by taking account contractual party's perspective on potential risks in the project, based on their initial sources, and their magnitude on project's performances, namely quality, time and budget. Among 50 risks identified in this research based on their initial sources, it was found that only 16 risks are significant to the project performance. The risks at national/regional level consist of *inconsistence of government policy, inflation rate increasing, currency exchange fluctuation, tax rate increasing, and culture tradition differences*. The risks at construction industry level involve *non-standard contract form and differences in legal relationship between partners*. The risks at company/project management level entail *disadvantage contract, unclear detail design or specification, unfavorable sub-contractor, default supply of materials, equipments and plants and human resource shortage*. The risks at project implementation level engage *damage by human errors, incomplete design, and bad weather*. However not all these risks are contained in contract through clauses. There are only thirteen risks that contained in the contract namely *inconsistence of government policy, inflation rate increasing, currency exchange fluctuation, tax rate increasing, culture tradition differences, unclear detail design or specification, unfavorable sub-contractor, default supply of materials, equipments and plants, human resource shortage damage by human errors, incomplete design, and bad weather*. While three risks are not contained in the contract namely *non standard contract form, differences in legal relationship between partners, disadvantage contract*. However these unstated risks are able to be omitted by the use of *MDB Harmonised Conditions of Contract for Construction* as the standard form of contract in this project. As addition, the application of *Project Management Manual (PMM)* as the guidance in implementing the project is pivotal. Therefore it can be concluded that *MDB Harmonised Condition of Contract for Construction* is able to cope with the risks that possible to occur in this project.

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CHAPTER I

INTRODUCTION

1.1 Background of Research

Infrastructure development is one of the important elements to boost the achievement of development goals. This is mostly associated with economic growth stimulated by infrastructure investment. Regarding to this fact, in 2005, the Indonesia government established Infrastructure Development Acceleration Committee, coordinated by Ministry of Economic, to accelerate infrastructure provision through Infrastructure Policy Package. In 2006, there were four main policies established by this committee, namely trans-sector policy, sector policy, local government participation, and infrastructure project transaction. As addition, one of strategy to accelerate infrastructure development was enhancing private participation in infrastructure provision. In 2010, Indonesian government through The National Development Agency (Bappenas) forecasted, that Indonesia would need investment of US\$143 billion to meet infrastructure development in the 2010-2014 (Nortonrose, 2010). Asian Development Bank (ADB) analyzed that there was a requirement for Fund for Infrastructure (FI) in Indonesia, because if the government could only finance about 30% of infrastructure requirements to sustain economic growth,

domestic investor alone will not fill the 70% gap (Nortonrose, 2010). Thus, the role of foreign investment in infrastructure development in Indonesia is quite significant, regarding to the statement of Ministry of Finance that the need in increased FI in Indonesia was not mainly due to the lack of budget, but more (particularly) to improve efficiency, expertise and quality of services (Nortonrose, 2010).

Moreover, the development of the transport sector is critical, as this sector, together with electricity, is the key to economic development, by which this area needs to be prioritized (Nortonrose, 2010). According to Baum and Tolbert (1985), economic growth and social development are impossible without adequate transport (in Amrullah, 2006). This becomes more important in Agricultural Country, like Indonesia. Research on transportation as one of non price variable of agricultural product has identified that it had significant effect to agricultural product in Latin America (Chibber 1999 in Amrullah, 2006). It is not surprising that around 0.8% Domestic Revenue of developing countries is spent in road construction, development and rehabilitation (Fay, 1999 in Amrullah, 2006). In Indonesia, among 83 policies in sector policy of Infrastructure Policy Packet established by the Committee in 2006, as described above, that of transportation sector set 22 policies (Amrullah, 2006).

Directorate General of Highway (DGH) of Ministry of Public Work is the technical directorate handling the infrastructure development in transportation sector in national scale. In local context, this task is run by that of Public Work Office in Province Level as well as in Municipality and Regency Level. However, road condition and its network availability have become one of the major issue of development in South East Sulawesi Province, as more than 50% of provincial road is categorized as damage, ranging from light damage until heavy damage (Indonesian Bank, 2011). Total cost for road construction needed, both in term of maintenance and new construction, is around Rp 173.32 Milyar/year. Unfortunately, budget allocation from Provincial Income and Revenue Allocation (APBD) for road construction is only around Rp 20 Milyar/year (Indonesian Bank, 2011). In the last

five years, this province has got support from foreign fund from various international donors for road construction. And, in the next future years, South East Sulawesi Province expects to increase the budget to enhance the development in this region, from local and central government as well as from foreign sources.

Furthermore, foreign funded projects are considered as high risk business, especially in term of external risks, mainly because of the large size of the project and the international issues involved (Zhi, 1995). Meanwhile, unmanaged or unmitigated risks are one of the primary causes of project failure (Lyons and Skitmore, 2002). Risk management, which involves risks identification; risk analyses, and risks mitigation/response, is needed to minimize and control the risks as well as to ensure the achievement of project performance in term of cost, time and quality. Risk identification, involving identifying resource and type of risks, is the first important step in the risk management process (Hayes et al., 1986; Williams, 1995 and Godfrey, 1996 in Perera *et al* 2009). After that, likelihood of occurrences, the magnitude and impact of the identified risks are analyzed. However, construction risk can hardly ever be eliminated, but they can be transferred or shared from one party to another through contract clauses (Perera *et al*, 2009). Contract clauses will determine the “tenure” of risk: who will responsible on (what) particular risks and how to manage the risks. Contract clauses become the prediction and early mitigation of the risk. Thus, proper risk allocation in construction contracts has therefore come to assume prominence because risk identification and risk allocation have a clear bearing on risk handling decisions (Perera *et al*, 2009).

Research on the risk management (of foreign funded project) is mostly concern on the identification of the source of the risk (Zhi, 1995; Grimsey and Lewis, 2006, Baloi and Price, 2003, Ng and Loosemore, 2007). Besides, the discussion of (foreign funded) project is also emphasized on the frameworks, techniques and tools for risk identification, analyzes and strategy responses (Azani, et.all, 2011; Tah and Carr, 2001; Phang, 2007). As addition, the application and usage of risk management are also discussed (Lyons and Skitmore, 2003).

Unfortunately, there are only few discussions on risk allocation in contractual clauses whereas contract clauses are the prediction and early mitigation of the risk. Besides, this issue is one of the major obstacle investments in Indonesia. As identified by Nortonrose (2010), that 95% respondents perceived the legal and regulatory risks to be the most significant barrier to investment. It was described that too many of the cash flow stream require a degree of trust, which is not bankable. Nortonrose (2010) also identified that 91% respondent consider international arbitration as the preferred option in managing the risks. Arbitration clause in contract can give a hand the project turning into bankable.

Regarding to above argument, this research will discuss risks allocation in contract clause of road construction supported by foreign fund in South East Sulawesi Province.

1.2 Problem Statement

Road condition and its network availability have become one of the major issues of development in South East Sulawesi Province, as more than 50% of provincial road is categorized as damage, ranging from light damage until heavy damage (Indonesian Bank, 2011). In the last five years, this province has got support from foreign fund from various international donors for road construction. And, in the next future years, South East Sulawesi Province expects to increase the budget to enhance the development in this region, from local and central government as well as from foreign sources.

Foreign funded projects are considered as high risk business. Risk management, which involves risks identification; risk analyses, and risks

mitigation/response, is needed to minimize and control the risks as well as to ensure the achievement of project performance in term of cost, time and quality. However, construction risk can hardly ever be eliminated, but they can be transferred or shared from one party to another through contract clauses (Perera, *et al*, 2009).

Brainstorming is the most common technique used in identifying the risk (Lyons and Skitmore, 2003). The contractual parties' perspectives on the potential risk as well as their magnitude and impact become important to obtain a clear view of the risk event. These perspectives should be taken into account in contract clauses. In this manner, contract clauses become the prediction and early mitigation of the risk. This may help the parties to be clear on risk handling decisions.

Therefore, there are three research questions in this research, namely:

1. What are the potential risks in foreign funded project particularly in road construction regarding to contractual parties perspectives?
2. How the magnitude on those risks to project's performance?
3. In what extend are those risks coped in project contract?

1.3 Objectives of Research

Objectives of the research are to:

1. To identify potential risks in foreign funded project particularly in road construction in South-East Sulawesi Province in Indonesia
2. To identify the magnitude on those risks to project's performance.
3. To evaluate on how those risks are obtained and shared in contract clause.

1.4 Scope of Research

The scopes of this research are:

1. This research will focus on the National road construction located in South East Sulawesi Province in Indonesia
2. This research will focus on foreign funded project namely for road construction which is sharing with National Budget (APBN)
3. The discussions will emphasis on private foreign investment on financing the project, regardless to the private participation in building, operating and maintaining the project.

1.5 Significance of Research

This study will be useful in recording potential risks in road construction, particularly that supported by foreign fund. It provides basis information for considering the priority of the response to the risk in this kind of project. This kind information is extremely needed in the construction industry, especially in South east Sulawesi Province, which expects to increase the budget to enhance the development, including road construction, in this region. At the same time, there has not been research conducted or information available regarding on this issue in this region yet. Furthermore, this research will contribute in minimizing and controlling the risks in that type of project as well as in ensuring the achievement of project's performance.

1.6 Methodology

Methodology of this study is provided in Chapter 3 of this thesis. Generally, it divides into six stages:-

- (i) preliminary study;
Preliminary study will be conducted through literature review in order to identify the gap in study risk management of road construction. Discussion with key informant namely senior government also conducted in order to assess availability of data and potential risks in the project.
- (ii) objective formulation and research question;
Objectives are set to be achieved and research question is formulated to guide this research based on the preliminary study.
- (iii) sampling method selection;
Sampling of this study is the parties who directly involve in the project namely donor, employer, bidding committee, consultant and contractor.
- (iv) data collection method and technique;
Data will be collected from the project administrator in headquarter office and in site office. There will be a questionnaire that will be answered by the parties who involved in the project.
- (v) data analysis;
The analysis of potential risks and the magnitude of the risks will use *SPSS version 16* program.
- (vi) taking account risks into the contract.
This analysis will be conducted by taking account the risks into the contract clause. The analysis is only for risks that have magnitude to the project performance; time, quality and budget.

1.7 Thesis Structure

Chapter 1 presents introduction of the research which contains background of research, problem statement, objectives of research, scope of the research, and significance of research.

Chapter 2 presents the literatures review of risk allocation in contract clause, particularly in the case of construction project in Indonesia.

Chapter 3 presents methodology of the research.

Chapter 4 presents the project overview, the parties involved in the project and their responsibility, data analysis, and taking account risks in contract clause.

Chapter 5 will present the conclusion of the result of risk allocation in contract clause for the future study.

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