DEALING WITH UNCERTAINTIES IN MEGAPROJECT PLANNING PROCESSES

(Getting Insight on Strategic Choice Approach)

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Uncertainty is always there, like a shadow of you.

Abstract

It is well-known that megaproject planning process involves numerous numbers of actors. Different interests among these actors more or less bring uncertainties into the planning arena. This condition is clearly depicted in Indonesia planning practice since the decentralization with wide range of involvement and multi-layer of government takes place. Promoting new megaproject might be difficult on this context. By means of this background, this research aims to see how planning actors deal with uncertainties in megaproject planning processes. Using three types of uncertainties promoted by Friend and Hickling (2005) which are uncertainty about working environment, guiding values and related decision, this research portrays the Soekarno Hatta International Airport (SHIA) exceed capacity problem and how the actors involved struggle with those type of uncertainties. On this basis, the research found that many instruments can be used to deal with uncertainties in megaproject planning process. However, if these instruments are not used carefully, they can lead to a deadlock of "vicious cycle" among three types of uncertainties instead of solving the turbulences.

Keywords: megaproject, uncertainties, Soekarno-Hatta International Airport

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Table of Contents

Abstract 3
Acknowledgement 4
List of Figures 7
List of Tables 8
List of Abbreviations 9
Chapter 1 - Introduction 10
1.1 Research Background 10
1.2 Research Objective 12
1.3 Research Question 12
1.4 Research Structure 12
Chapter 2 - Theoretical Overview 14
2.1 Introduction 14
2.2 Uncertainties – A Never Ending Stories 14
2.2.1 Uncertainties about working Environment (UE) 15
2.2.2 Uncertainties about guiding Values (UV) 18
2.3.3 Uncertainties about Related decision (UR) 20
2.4 Conceptual Framework 22
Chapter 3 - Methodology 23
3.1 Introduction 23
3.2 Literature Review 23
3.3 Data Collection 23
3.4 Descriptive Research 24
3.5 Extracting Resources 24
Chapter 4 – An Intricate Picture from the Practice 26
4.1 Introduction 26
4.2 Soekarno- Hatta International Airport – big demand, small capacity 26
4.3 Expansion of Soekarno-Hatta International Airport 27
4.4 The Initiative from a Private Party 28
4.4.1 Introduction of Airline Service in Other Airports 29
4.4.2 Function of a New Airport 30
4.5 Boarder Scope of Alternative – Kertajati Airport 32
4.6 Halim PerdanaKusuma – back to the “beginning” 33
Chapter 5 – Dealing with Uncertainties: A Mission Impossible 35

5.1 Introduction 35
5.2 Uncertainties about working Environment in Practice 36
5.3 Uncertainties about guiding Values in Practice 38
5.4 Uncertainties about Related decision in Practice 40
Chapter 6 – Research Findings and Conclusion 43
6.1 Research Findings and Recommendations – "a vicious circle relationship" among three types of uncertainties 43
6.2 Conclusion 45
Appendix 1 – Interconnected Interest among Actors 47
References 48

List of Figures

Figure 1 The Location of Karawang International Airport and Other Airports 11
Figure 2 Types of Uncertainties 15
Figure 3 Policy Instruments to Improve Governance in the Public Sector 19
Figure 4 Conceptual Framework 22
Figure 5 Vision 2030 for Jabodetabek MPA 28
Figure 6 Statistic and Forecast of Passenger Growth 29
Figure 7 Chosen Location of New Airport 31
Figure 8 Alternatives Scheme 34

List of Tables

Table 1 Power, Information and Misinformation : the management of comprehensive, trust, consent and knowledge 17
Table 2 Methodology 25
Table 3 SHIA Development Stages Strategy 27
Table 4 Three Alternative Issues to Overcome SHIA's Under Capacity 29
Table 5 Summary of Evaluation for the Introduction of Airline Services 30
Table 6 Stakeholders Focus and Function 36
Table 7 Different Forecasting between JICA and PAP II 37
Table 8 Utilization of Development Strategies 39
Table 9 The Main Actors of Alternative Issues 41
Table 10 Tensions among JICA, Karawang Regency and West Java Province 41
Table 11 The Conclusion on Actors Behavior 44

List of Abbreviations

1. Bappeda : Local Development Planning Agency/*Badan Perencanaan Pembangunan Daerah*
2. Bappenas : National Development Planning Agency/*Badan Perencanaan Pembangunan Nasional*
3. BKPRN : National Spatial Plan Coordination Agency/*Badan Koordinasi Penataan Ruang Nasional*
4. BMA : Bandung Metropolitan Area
5. BPN : National Land Agency/*Badan Pertanahan Nasional*
6. CMEA : Coordinator Ministry of Economic Affairs
7. Jabodetabek : Jakarta Bogor Tangerang Depok Bekasi
8. JICA : Japan International Corporation Agency
9. JIS : JapanTerminalBuilding, Itochu, Shimizu
10. JMA : Jakarta Metropolitan Area
11. KIA : Karawang International Airport
12. LMDH : *Lembaga Masyarakat Desa Hutan*
13. MoF : Ministry of Forestry
14. MoPW : Ministry of Public Works
15. MoT : Ministry of Transportation
16. MP3EI : Masterplan of Acceleration and Expansion of Indonesia Economic Development/*Master Plan Percepatan Pembangunan Indonesia*
17. PMDH : *Pemberdayaan Masyarakat Desa Hutan*
18. RTRWN : National Spatial Plan/*Rencana Tata Ruang Wilayah Nasional*
19. SHIA : Soekarno Hatta International Airport
20. PAP II : PT. Angkasa Pura II (name of state-owned company)

Chapter 1 - Introduction

1.1 Research Background

The term "Megaprojects" has become popular nowadays since the paradigm offered by Flyvbjerg et.al (2003) about "a new political and animal- the multibillion-dollar mega infrastructure project (Flyvbjerg et.al, 2003; p.1)". This term belongs to a large project with more than US$1billion high investments, 50-year long life time, uncertainty in forecast and cost estimations, public good property and the indirect benefits for the operator (Bruzelius et al., 2002)

There are many actors that interrelated one to another involved in developing this type of gigantic projects (Brockmann and Girmscheid, 2007). As the large scale projects have become the new politics, the number of major infrastructure projects developed with the supports from national or supranational government, private capital and development bank has sky rocketed (Flyvbjerg et al., 2003). Along with this wide range of involvement, the megaproject planning process becomes more complex. In Indonesian planning practice, for example, the diverse involvement of stakeholders begins in 1998 when Law number 22 year 1999 and Law number 25 year 1999 induced radical changes in the local administrative system. Decentralization takes place and brings the complexity into planning arena due to involvement of multi-layer government. The economic crisis followed by reformation in political circumstances, brought Indonesia as a developing country into a big shift from centralized planning approach to decentralized one. There was a paradigm shift from s*tructural efficiency model'* with strong emphasize on efficiency and homogeneity of local level to more *'local democracy model'* focusing on democracy value and heterogeneity of local government (Hoessein, 2002). As the situation changed, the institutional design within the specific planning arena also turned into a new form. For instance, land use was no longer a national responsibility; it became the responsibility of provincial and local governments. It was defined that each local and provincial government has their own authority to develop their own area. As such, spatial planning nowadays is conducted in a three layer government level with national, provincial and local tiers.

This radical shift resulted in the fact that, developing megaprojects has become more and more complicated than it used to be in the Indonesian context. Each level of government has its own interest in developing infrastructure projects. Given that every local government has the power to decide about their future plans and developments, the decision making process for large infrastructure project that involves multi-actors also has become problematic. The process has become a process that full of negotiation, bargaining and exchange among actors (Healey, 2003).

To get the insight in this practice, it is interesting to look at early decision making process of a specific megaproject in Indonesia. This thesis focuses in the main international airport in Indonesia, Soekarno Hatta International Airport (SHIA). This airport has run out of capacity. Therefore, several alternatives are proposed by numerous actors. All have different interests. As SHIA operational company, PT. Angkasa Pura II (PAP II) wants to optimize the existing airport by adding runways and improving the quality of supporting transport infrastructure. On the other hand, the National Planning Board wants to develop smaller airports surrounding SHIA to overcome the exceed-capacity. In addition, the West Java Province comes into arena by

proposing Kertajati Airport since they want to generate a new growth pole on the eastern part. Last but not least, a private party, *Japan International Cooperation Agency (*JICA), suggests with Karawang International Airport (KIA) yet another alternative.

Figure 1 The Location of Karawang International Airport and Other Airports
Source : JICA 2011

This multi actors setting might somehow jeopardize the planning process. In the early stage of planning process, lobby groups sometimes support certain alternative solution that they consider to be superior (Priemus, 2008). In this stage, there is no guarantee that success projects' criterion can be recognized either by the project promoters or the Government (Perminova et al., 2008). This tends to be a brooding place of uncertainties. Given that, planning processes are expected as tailor-made approach to meet certain unique problems, and the uncertainties are undeniable (Bruton et al., 2005). Consequently, the need to deal with uncertainties is obvious.

Accommodating this need, Friend and Hickling (2005) offer a strategic planning approach as a way of thinking about uncertainty. The idea behind this strategic planning approach is providing a tool for decision makers to facilitate communication with various perspectives, allegiances and skills that enable the stakeholders exploring the structure of complex decision problems and ensuring progress of commitment to agreed actions (Friend, 1989). It considers about uncertainties over time, and to do so it develops tools and techniques to think broadly and multi laterally about uncertainties in the arena (Bryson et al., 2004). This approach also focuses on making decision that places political rationality as important as technical or substantive rationality (Bryson et al., 2004).

The tension among actors on pursuing different alternatives gives a room for uncertainty in the case study as the notion of collaborative planning emerged. It is argued that the rationality behind the decision making process highly depends on how actors deal with the uncertainties. As such, this research tries to depict the uncertainties in megaproject practice, and how a strategic choice approach (Friend and Hickling, 2005) could help as a pragmatic tool in planning practice. In order to ensure stable outcomes of planning process, it is argued that understanding multiple interactions between governance processes and their environment is fundamental (Teisman et al., 2009). Also, it is interesting to analyse the decision making process and **how those multi actors deal with the uncertainty**, attaining a common understanding among different parties about how the organization should proceed and aligning different interests toward a shared goal (Woltjer, 2008)

1.2 Research Objective

The objective of this research is to have a greater insight of uncertainties happens on megaproject planning process, looking at the way in which actors deal with uncertainties and how it can be done in Indonesian context. This research also aims to see the difference between what happens in the theory and practice.

1.3 Research Question

The main research question proposed is :
How do planning actors deal with the uncertainty in megaproject planning processes?
Further, three sub questions have been developed as follows:

1. Which type of uncertainties can be defined?
2. How can actors deal with these uncertainties?
3. How can these actions be done in Indonesian context? And what is the logic behind these actors?

1.4 Research Structure

Overall, this research consists of six chapters. The content of each chapter is as follows;

Chapter 1 : Introduction
This chapter includes the research background, research questions, research objectives, and research structure.

Chapter 2 : Theoretical Overview
This chapter provides a theoretical overview and a conceptual framework used in this research.

Chapter 3 : Research Methodology
On this part, a set of methodology will be described about how the data is gathered, developed, and elaborated.

Chapter 4 : Case Study
This chapter aims to analyze the existing condition of the case study. This chapter uses the chronological order to depict the Indonesian planning process of particular megaproject.

Chapter 5 : Analysis

This chapter explores the uncertainties based on the current condition as well as how the theoretical framework from the chapter 2 will be used as an overlay in the case study to define barriers between theory and practice. Concurrently, this chapter also explores the instruments that used in practice to deal with every type on uncertainties.

Chapter 6 : Conclusions

On this chapter, research findings and recommendations will be shown as well as a reflection.

Chapter 2 - Theoretical Overview

2.1 Introduction

To begin with, this chapter aims to provide an understanding about the theoretical point of view regarding uncertainties in megaproject and how strategic choice approach could deal with these uncertainties. Specifically, in dynamic circumstances as democratic societies, the environment is highly associated by the emergence of new actors, increasing turbulence and uncertainty (Szyliowicz and Goetz, 1995).

This chapter will begin with the short introduction. Then, a set of explanation about uncertainties will be built. After that, three distinguish types of uncertainties based on the so-called strategic choice approach of Friend and Hickling (2005)'s work will be elaborates. For each type of uncertainties, an explanation and such an argument about cause and solution will be presented.

2.2 Uncertainties – A Never Ending Stories

As various perceptions and motivations take place, unexpected behavior and interpretation are considered as hindering the planning process; this contributes to uncertainty with unclear level of decision making responsibility (De Roo et al., 2007). "*Uncertainties are things that are not known or known only imprecisely. They may be characteristics of the universe (e.g. statistical process) or characteristics of the design process (e.g. information not yet collected); in either case they are factual. Many uncertainties are measureable, although some are not (e.g. future events). They are value netral; they are not necessarily bad (McManus and Hastings, 2005; p.2).*"

However, some might argue that there are relative values and perceptions to bear in mind regarding uncertainties that involve something being known or unknown by a person or a group (Abbott, 2005). Defining uncertainty is a crucial part of performance-oriented project management (Perminova et al., 2008). Surprisingly, it is argued that only little appreciation given to different dimensions of uncertainty and different understanding of its characteristics, magnitudes, and means to deal with them (Walker et al., 2003).

Dealing with this, Friend and Hickling (2005) introduce Strategic Choice Approach. They offer Strategic Choice Approach as a flexible and powerful methodology that is suitable for multi-parties, multi-organizations and collaborative settings where the focus is on making better decisions rather than the goals (Bryson et al., 2004). It is due to the fact that there are two crucial elements of managing uncertainty which are taking a reflection from learning process and making sense of the choice of action alternatives that enables flexibility and rapidness (Perminova et al., 2008). Choosing strategically could be defined as a set of pressured process between arrangement for making policies and making progress where the confusion, disenchantment, uncertainties, vacillation, inconsistency and today's reality matter (Friend and Hickling, 2005).

Apparently, uncertainties should be considered as relative terms, that is presumed as a nature of certain situations and people rather than something with objective reality embedded (Friend and Hickling, 2005). From the picture below, Friend and Hickling (2005) argued that when the

planning problem deals with the boarder pressures for decision on the interrelated agendas, there are three significant uncertainties as a central focus that the planners have to face.

> *These three types of uncertainty play an important part in the philosophy of planning as a process of strategic choice; they can be formally described as follows: (1) Uncertainties about the working Environment : UE for short; (2) Uncertainties about guiding Values: UV for short; (3) Uncertainties about Related decisions: UR for short (Friend and Hickling, 2005; p.9).*

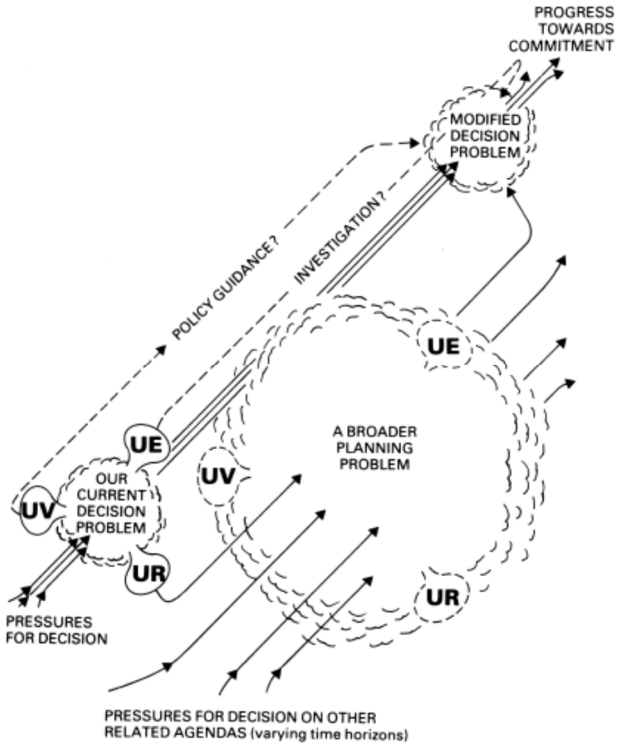


Figure 2 Types of Uncertainties
Sources : (Friend and Hickling, 2005)

For that reason, Friend and Hickling in 2005 underlined the needs of defining uncertainty areas to express the concern areas for the actors in planning process and offer broad scope for discretion and judgment in its formulation. In line with this, sometimes there is a mismatch between projects and the expectations of the stakeholders that might lead to wasted public resources (Samset et al., 2006). Later on the exploratory option is also needed to alter the doubt within uncertainty areas (Friend and Hickling, 2005). It is also believed that the exploratory option is a respond of uncertainties. The respond itself is related with how the actors' deal with the alternatives proposed.

To make it clear how these three types of uncertainties occur and interact as well as how actors can deal with each of those uncertainties, the further explanation is as follows:

2.2.1 Uncertainties about working Environment (UE)

The first category of uncertainties interpreted by Friend and Hickling in 2005 is Uncertainties about working Environment (UE). They strongly believed that under this category, personal

doubts may occur among actors, and even worse, they may be different one to another as a consequent of making assumptions about external circumstances or trends. People sometimes make choice with insufficient knowledge or unknown possible outcomes and consequences (Abbott, 2005). In other words, a lack of information falls into this category.

Information is a fundamental input for decision taken with numerous challenges in insufficient information and conflicts between decision making, policy and planning (Eweje et al., 2012). The problem of the major public investment projects, mostly is due to the deficiencies of the analytic or the political process, and the interaction between analyst and decision makers in the early beginning of the process (Samset et al., 2006). Even worse, on this basis of Samset et. al (2006), no problem analysis, insufficient project alternatives, scope ambiguities, no functional requirements programs, flawed architecture process and contested information are believed as the reasons behind the complexity and uncertainty issues dealing with large scale of projects (Giezen, 2012).

As a result, the concern of technical aspect, the economic and ecological impacts, as well as project risks is highly information sensitive and sometimes is contested; even worse providing enough objective information regarding trusted data, agreed methods, broadly defined system boundaries, and effect optimization is impossible (Bruijn and Leijten, 2008a). This might lead to misinterpretation of information which is sometimes dangerous for megaprojects works. There is high level of general misinterpretation of information that might lead to cost overruns, benefit shortfalls and waste (Flyvbjerg, 2007). Giezen (2012) identified that there are four factors that are fundamental during appraisal and decision making phase which are optimism bias, strategic misrepresentation, technological sublime, and scope creep. The problem does not stop there. Inadequate needs' assessments, initial poor designs, local authorities' tactical budgeting, insufficient cost estimation and risk assessment also generate problems in terms of megaprojects (Magnussen and Samset, 2005).

Forester (1982) went further with the various different type of misinformation. From the table below, it is clear that he defined the relationship between the information and communication that shape the people behavior.

The exercise of power (may work to obstruct informed action through:)	Forms of misinformation			
	The management of affected persons':			
	Comprehension (confusion/ distraction)	Trust (false assurance)	Consent (illegitimacy)	Knowledge (misrepresentation)
Decisions	Resolutions passed with deliberate ambiguity; confusing rhetoric, e.g., regarding the "truly needy"	"symbolic" decisions (false promises)	decisions reached without legitimate representation of public interests but appealing to public consent as if this were not the case.	decisions which misrepresent to the public actual possibilities (e.g., the effectiveness of insufficiently tested medications)
Agenda setting	obfuscating issues through jargon or quantity of "information"	marshalling respectable personages to gain trust (independent of substance)	arguing, e.g., that a political issue is actually a technical issue best left to experts.	before decisions are made, misrepresenting costs, benefits, risks, true options in the planning process
Felt needs shaping	Diagnosis, problem definition, or solution definition	Ritualistic appeals to "openness," "the public interest," and "responsiveness;" the encouragement of dependency upon benign apolitical others.	appeals to the adequacy and efficacy of formal "participatory" processes or market mechanisms without addressing their systematic failures	ideological or deceptive presentation of needs, requirements, or sources of satisfaction (false advertising, "analysis for hire")

Table 1 Power, Information and Misinformation : the management of comprehensive, trust, consent and knowledge

Source : (Forester, 1982)

Generally this type of uncertainty needs more information and search for the possibilities of further investigation, research, survey, analysis and forecasting (Friend and Hickling, 2005). It might be true that how decision can be made is related with the existence of such information. Risks appear due to limited information and future uncertainty (Allen, 2004). Therefore, it is argued that Information availability is an important element for choosing the best alternative of megaprojects.

It is undeniable that besides the solution elucidated by Friend and Hickling (2005) about how information has to be gathered to prevent this uncertainty, the calls of pragmatically incremental trial and error search might be appropriate to overcome insufficient knowledge (Christensen, 1985). It requires the implementation of well-defined risk management plan that can minimize uncertainties by a project risk monitoring and mitigation strategy (Allen, 2004). Also, increasing scientific and professional understanding, determining appropriate systems/studies, and applying "learning by doing" concept have to be fundamental consideration to reduce this kind of uncertainty (Kato and Ahern, 2008). It is including ensuring projects' viability and relevance up-front, avoiding hidden agendas during planning, underestimating cost and overestimating utility in unrealistic and inconsistent way, securing essential planning data and sufficient contract regimes (Samset et al., 2006).

Careful consideration has to take place in addressing systematic failure, especially when power relations appear (Lauria and Soll, 1996). Alternatives also have to be put earlier with systematical recognition of each alternative (Priemus, 2008); because the practical, political and administrative pressures tends to influence the stakeholders to swing the focus from the decision (Friend and Hickling, 2005). The decisions of large scale-projects, particularly, are inherently political. E.J. Feldman in Szyliowicz and Goetz (1995) believed that megaproject works are complicated not only in terms of forecasting difficulties but also by the nature of bureaucracies, the role of citizens and the financing and administration process. Thus, a set of studies done by experts should not only act as understanding assistance, but also lead to the circumstances understanding where the experts are able to incline the knowledge availability to the groups they serve, and when they serve powerful established interest (Healey, 1992).

Theoretically, the nonexistence of simple truth and the conclusion that the facts tend to be mere social construct may lead to the tremendous relativism of decision making (Bruijn and Leijten, 2008a). Decision strategies to reduce uncertainty working effectively are based on the information value, but information itself is valued for the intended- purpose and different tactics for different point of view are possible (Rowe, 1994). Hence, interestingly, Friend and Hickling (2005) recognize this relativism as the parameter of second category of uncertainty.

2.2.2 Uncertainties about guiding Values (UV)

As has been describe above, the first category of uncertainty, UE, struggles from the lack of information and the actors' assumptions of external trends. Meanwhile, in the second category, Uncertainties about guiding Values (UV), disagreement and doubts to the values regarding concerns of interest groups comparison are noticeable(Friend and Hickling, 2005).

When it comes to megaprojects, the dynamic context of different interests, purposes, limitations and ambiguities (Giezen, 2012) might affect actors commitment to involve in the long range of planning arena. Understanding the value of megaprojects might be different from one stakeholder to another. The value of the this type of project is different in terms of size and project complexity (Zhai et al., 2009). This different perspective more or less gives a different understanding of the rationality behind the actors to promote such a megaproject. Initially, the traditional focus on the project practice is as simple as increasing the viability and economic benefits of a project (Magnussen and Samset, 2005). But, nowadays, it also becomes the subject to intense political scrutiny (Altshuler and Luberoff in Barthel and Vignal, 2014). In pursuing certain objectives, local levels, for example, not only adapt national or regional policy, but also are forced by other driving forces, such as other government policies, global condition regarding local business interest, broader social and environmental manifestation (Healey, 2003).

The pitfall of project implementation and early beginning of planning process might take place in terms of little and great opposition that sometimes generates a great deal of social complexity (Bruijn and Leijten, 2008b). Therefore, it is worth to point out that ambivalence and discourse are undeniable on the decision making process. The appreciation of

ambivalence and the capacity to doubt are critical components of a reflective way of act (Hajer and Laws, 2008). Struggles about term of references and appropriate actors involvement in policy design and implementation also give meaning that leads to unrealistic outcome expectations (De Roo et al., 2007). It could be concluded that this blur goal objective is the main problem of this type of uncertainties and the promises of policy guidance, aims clarification, priorities settings and people involvement is a must to prevent the uncertainties under this category (Friend and Hickling, 2005).

As the ambivalence might lead to cost overrun and time delay, there is several policy implications needed to be paid more attention. Flyvbjerg (2007) believed that the implications are:

a. The information about costs, benefits, and risks of megaprojects created by the promoters or planners falls into doubt in lawmakers, investors and the public's view
b. The ineffective way of megaprojects planning might lead to Pareto-inefficient investments.
c. The reform of policy and planning for megaprojects is undeniable.

Therefore, in order to break through this deadlock, the policy instrument has to be developed as a baseline to 'stick the door'.

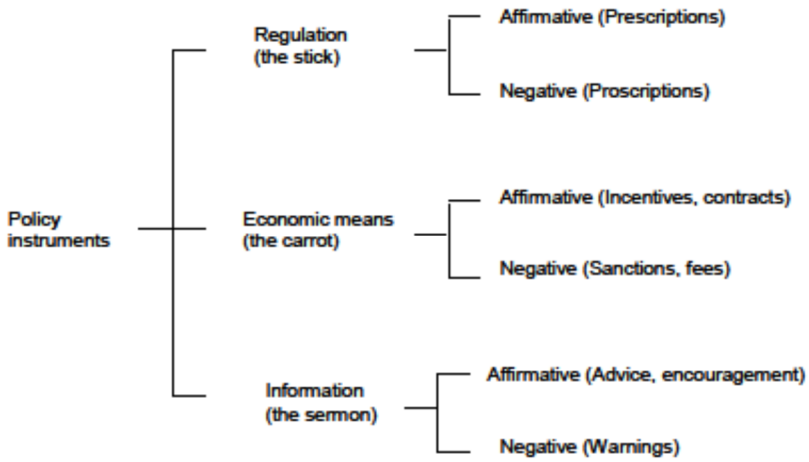


Figure 3 Policy Instruments to Improve Governance in the Public Sector
Sources : Videc, Vedung and Rist in (Samset et al., 2006)

Samset et al (2006) believed that the policy instruments include not only the use of regulations but also economic means and information with the aim of increasing autonomy and efficiency in society. He also believed that regulation, economic means and information are related to good governance practice, regarding accountability, transparency, efficiency and effectiveness, responsiveness, forward vision and rule of law. Regulation itself means the sustained and focused control by public agency towards activities valued by particular community (United Nations, 2001). It means that regulation can be used as a control over certain value derived by the social groups. On this basis, Spatial plan, for example, can be used as bureaucratic tool to foist a regulatory order on creative innovation process for adjusting novel conditions (Dear in Healey, 2003). As a complement, instrumental and

strategic actions can be used by actors attempting to get measurable objectives and measuring the success value of their actions (Habermas in Lyytinen and Hirschheim, 1988).

2.3.3 Uncertainties about Related decision (UR)

After considering a hostile debate on value in the second category, Friend and Hickling (2005) found that agreeing on assumptions made about the choice is cumbersome, especially on the basis of other decision areas outside the current scope of work. Under this category, the coordination is a central question as well as the needs of connection, negotiation and broader agenda of planning (Friend and Hickling, 2005).

Large scale projects have certain impact to many interest and territories; therefore stakeholders often have particular demands in terms of plan acceptance, such as lands need to be bought and zoning plans remade and local politicians co-opted – all these stakeholders will want something in return (Giezen, 2012). These issues have to be linked one to another to make more coordination in the boarder sense. The chosen strategy must consider the effects of particular actions in which the actors have to cope with co-operative and conflicting interest situation and search for strategy pursuing the goals (Lyytinen and Hirschheim, 1988). Unfortunately, large scales of projects are inherently political. Human dimension becomes crucial due to the fact that the political dimension of megaproject decision making process practically cannot be separated with the technical analysis, especially when abstract political ambitions form in specific technical challenge (Giezen, 2012). E.J. Feldman in Szyliowicz and Goetz (1995) believed that megaproject works are complicated not only in terms of forecasting difficulties but also by the nature of bureaucracies, the role of citizens and the financing and administration process.

Apparently, a set of rule in defining the link among the decision area does not exist. The meanings behind those relationships tend to be relative to the condition where the decision takes place (Friend and Hickling, 2005). Therefore, this relativeness can bring the cloud in the decision process. This makes the problem focus difficult. The relative urgency and importance of different decision areas as the reason for focusing such a problem should be taken into account (Friend and Hickling, 2005).

By means of finding the link among various decision areas, there is a need to gather the key stakeholders, the prominence of external trends and forces, the active involvement of senior level managers, to build a longer term vision, the need to focus on implementation, to make commitment to plans and to be politically realistic (Albrechts, 2004).It might be true that each actor on giant projects tends to pursue their own perspective. Therefore, the treatment of megaprojects should be different from ordinary small scale project. It is due to the project exclusiveness that is highly attractive in megaprojects planning (Giezen, 2012). On this behalf, Interdisciplinary and transdisciplinary approaches help planners to understand uncertainty through cooperation and sharing ideas among academics, professionals and stakeholders (Kato and Ahern, 2008).

Planning practice generally is shaped by a rules and resource allocation patterns, but that how it can be implemented highly depends on the way opportunities and hindrances are

perceived, debated, and confronted in practice; thus, ethical conduct and skillful execution are important requirements of democratic services (Healey, 1992). Stakeholder involvement is crucial in this point due to the fact that the balancing of competing stakeholders' needs in megaprojects turns into the biggest challenge in the value co-creation process management (Chang et al., 2013). Christensen (1985) argues that the call for bargaining with the expectation of accommodating multiple preferences is also necessary. She also believes that each bargaining has to be adjusted to its certain stakeholders, issues, circumstances, and preferences.

The strategic choice can be used as inflammable means to integrate some different perspectives that articulates political process bringing agency and structure of organization into tension in the significant context (Child, 1997). Here, the actors involved must synchronize different interests and perspective, communicate effectively and learn, as well as pay attention on the whole picture reflecting the unexpected challenge for the related agency and partners (Capka, 2004).

From the public side, government as a public interest guardian (see, Flyvbjerg et.al., 2003) plays a fundamental role in strategic planning arena. However, there is a doubt regarding the capability of government. This doubt arises as a pressure from global environment and the government and private sector relation change, the government has no longer controlling and regulating organization for the society; thus, if government wants to have capacity for self-organization, the network function should work properly (Peters and Pierre, 1998). This is also as a remark for the massive decentralization where each local government has its own power to develop their area.

Besides, the higher-level government should be able to obtain capacity in information sharing, networking, removing barriers to local flexibility and creativity, and technical assistance in order to increase the local government capacity (Honandle, 2001). However, again, there is a doubt in how the central government could translate the policy formulation into linier progression of implementation (Black, 2001).

To fulfil this gap, each local government has to be dealt with the capacity to balance the higher level government capacity. This capacity faces a long debate in what way they could anticipate and influence changes in their own areas; develop policies and programs shaping their futures appropriately for local situation; and attract, absorb, and manage the resources necessary (Honandle, 2001). The active role of local level has to deal with not just making the area but also making the identity for the area itself (see, Healey, 2004).

Besides the Government, there is an emergent of "Governance" notion. This term belongs to a government meaning changes to a new process of governing or a changed condition of ordered rule or the new method by which society is governed (Stoker, 1998). The role of Governance actually tends to differentiates answers for such problems or challenges and for a more desired future conditions by mobilizing actors' plurality in terms of interests, goals and strategies (Albrechts, 2004). Describing what future would be is basically what strategic vision focus on and it is what should be the Government role as the public interest guardian.

On this face, then, the emergence of private party as the project promoter is also important. As the issue of policy network comes up, the private party involvement places a significant role in infrastructure provision. Policy network is the changing patterns of social relationship between interdependent actors in case of policy problem and clusters of resources that are formed, kept up and changed by an ecology games (Klijn and Teisman, 2003). In addition, the value of strategic planning advances a culture of collaborative and network planning (Friedman et al., 2004). This network includes the private parties because the government could not stand alone to have long term development. Yet, involving private party is not a simple thing to do. Different interest between public and private becomes fundamental in this case. When the government aims to protect the public interest, the private party look for profit and tends to have short terms influence for infrastructure provision (Flyvbjerg et al., 2003).

Others argue that operational planning approach initiated by the private party might be a benefit for area development as long as the government knows how to manage this interest. How the government allocates public resources effectively and efficiently in anticipating trends and forces in the external environment, corporates much in how business struggle with this issue (Hoetjes et al., 2007). A different role of central government, as mediator, facilitator, enabler and other diplomatic skills rather than bureaucratic one has to be pursued (Black, 2001). A set of complex public dynamic understanding, including public trust and confidence in ability to invest valuable resource is crucial in the management of megaprojects (Capka, 2004).

2.4 Conceptual Framework

To sum up all that the theory offers, it is interesting to look at the conceptual framework below.

Conceptual framework:

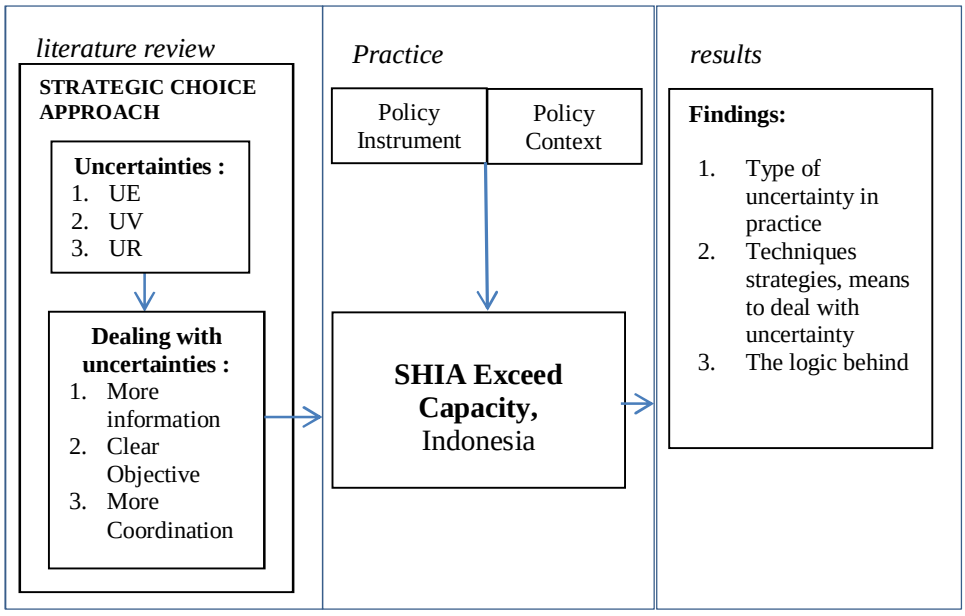


Figure 4 Conceptual Framework

Chapter 3 - Methodology

3.1 Introduction

On general, this chapter wants to illustrate the method used for this research. The research method is important to generate the idea of answering the research question on the first chapter in more specific way. Later, on this chapter, a broad understanding will be given in how to understand the actors' behavior dealing with the uncertainties in megaproject decision making process.

The focus on this research is on how **actors, policy process and policy instrument** interact on megaproject planning practice. The case study is used to give actual explanation in how these three planning entities act on the interaction facing the uncertainties. Case study itself aims to achieve understanding of these entities as detail knowledge in its own environment during certain period of time (Buijs et al., 2009). Subsequently, the research method is described in upcoming sub-chapters.

3.2 Literature Review

The literature review aims to give understanding of how strategic choice approach linked to megaproject planning process. The theoretical framework will be conducted through collecting some sources which are journal, research reports, relevant publication and books. Basically, the literature review tries to cover the sub questions answer from the theory point of view. The point of view from the theory will be base for analyzing the interaction among those three entities, actors, policy context, and policy instrument in dealing with uncertainties. For this research, literature review is conducted to develop theoretical concept of these entities and to determine how they interact on the dynamic arena including the driving forces and empirical findings from case study development. Through this conceptual framework, this research wants to describe the empirical practice of such decision making on megaproject works.

3.3 Data Collection

Besides that, the literature review and data collection is also used for an input for descriptive of the study case condition to depict the relationship among these entities. The review is executed through laws and policy study, obtained from internet, books, and government publications. Qualitative preliminary interview held within inter-government elements is used for gaining actors' perspective related with uncertainty discourse and how they perceive the logic behind the development. As its objective –grasping the subjects' perspective (Corbetta, 2003), qualitative interview is conducted due to the fact that this approach focus on the theoretical-philosophical paradigm as they adopt a perspective (see, Neuman, 2006).

This research uses exceed capacity problem in SHIA as uncertainty area. Although this case does not employ Strategic choice approach yet, this case has potential factors to be approached by this approach, due to its range of involvement that shows multiple problems input and upcoming multiple decision output. The interview is held with National Planning Board, Ministry of Transportation, Ministry of Public Works, Perhutani, Karawang Local Planning Board, West Java Provincial Planning Board, and PAP II regarding the early decision making process in facing capacity problem of SHIA in early 2013. The unstructured interview is held to gain a better

understanding of their position on this planning practice. In doing so, the interviewer only raises the topics and the respondents are allowed to reveal further (Corbetta, 2003).

To gain relevant information and reliable fact, a set of secondary data from different sources is used. This research use institutional documents that provide empirical material for the study of social phenomena (Corbetta, 2003). The list of institutional documents used for this research is as follows:

1. Government Report of Karawang Regency Government
2. Local Government Regulations ranging from 2009 to 2012, including spatial plan, policy and regulation
3. JICA studies from 2011 to 2012
4. Grand Design of SHIA by PAP II
5. Master plan of Acceleration and Expansion of Indonesia Economic Development 2011-2015
6. Other related institutional document

Besides, the mass media is used in this research. The press continuously provides factual aspect, from the small piece of news to representations of leading ideologies and values (Corbetta, 2003). For this stage, the list below is illustrating the secondary data used from the media:

1. Authorized government websites : www.setkab.go.id and www.setdamajalengkakab.go.id
2. National online newspapers : www.tempo.co.id and www.finance.detik.com
3. Other related data.

3.4 Descriptive Research

To answer the main question of this research "*How do planning actors deal with the uncertainty in megaproject planning process?*", the descriptive research will be conducted. The good description is crucial to the research enterprise and added immeasurably to our knowledge of shape as well as nature of our society (Vaus, 2001). The descriptive research will be used to depict the tools, mean, or instrument used for dealing with uncertainty

Since this research will deal with uncertainties with open dynamic and exhibit emergent properties as well as complex causation, Interpretive Social Science approach is used. In general, this approach is the basic of social researches which are sensitive to context getting inside the way of thinking of different people and focusing on achieving an emphatic understanding (Neuman, 2006). Firstly, on this research, interpretation is used for understanding and describing meaningful action towards megaproject works, along with the fluid definition of situation created by actors' interaction. Secondly, this research will analyze how actors develop the meanings of megaproject objectives and problem definition and also how they make choice of alternatives. Later, the practical orientation is used to define different values embedded.

3.5 Extracting Resources

This research will use descriptive research to explain the rules from which the uncertainty occur on Indonesia planning practice. The challenge is to meet the understanding of pluriform patterns through a combination of an in-depth case understanding with a broad general pattern understanding pattern in social system (Buijs et al., 2009). To describe the actors deal with the alternatives of megaprojects, this research extracts the source gained from data collection and

literature review that later on will be used for the input of descriptive research. The table below will show the extraction of the sources.

Source	Extraction	Product	Strategy	Output
Scholarly Journal	Compilation	The baseline theory of megaproject decision making	Conceptualization	Searching for the existing research and find the gap on the existing research that could be linked by this research.
Spatial plan and policy document	Compilation secondary data	The legitimation of alternatives and the instrument of actors	Narrative, descriptive, explanation	To answer how the actors deal with uncertainties regarding values
Internet, online newspapers,	Compilation	The recent condition	Narrative, descriptive, explanation	To get updated information about uncertainties in terms of working environment
Key Stakeholders	Open ended question interview	The setting of planning arena regarding context and process	Narrative and qualitative data	To answer who are involved and how they deal with the uncertainties regarding related decision
Analysis	The output of previous sources	Research results	Narrative, descriptive, and story telling	To elaborate the answer of "How do planning actors deal with the uncertainties in megaproject planning process"

Table 2 Methodology

Chapter 4 – An Intricate Picture from the Practice

4.1 Introduction

This chapter presents the actual practice of uncertainties in megaproject. To capture the whole complete story about the case, the next five sub chapters will use the chronological order of how the problem of the case study is going on. The case study becomes the lens that allows the casting of light on answering the main question of this research, "*How do planning actors deal with the uncertainty in megaproject planning process?".*

4.2 Soekarno- Hatta International Airport – big demand, small capacity

Based on Strategic Plan of Ministry of Transportation (2015-2019), in year 2025 – 2030, Indonesia's transportation has to be in the level of "well-established" to support the growth of economic, politic, and well-fare. For the domestic service flight, nowadays there are 222 routes connected 107 cities entire the nation; and for international flight, as many as 47 routes connected 12 cities in the country and 20 cities worldwide are needed to be addressed by the Ministry of Transportation; this number is not included 96 routes that are facilitated by foreign flight company (MoT, 2010). To improve the quality, the future service will be accommodated by 5 international airports including SHIA to serve regional flight through bilateral agreement dealing with '*Asean Open Sky'* in 2015 (MoT, 2010)

SHIA itself is the main airport serving Jakarta and its surrounding area located in Cengkareng District, a northwest of the capital city. Although it serves the capital city - Jakarta, SHIA is located in Tangerang Municipality, the province of Banten, approximately 20 km away from the capital city. It is believed that SHIA as the main gates for Indonesia plays a fundamental role in generating economic for the whole country. Based on MP3EI 2011-2025, the development of economic growth centers will be achieved through industrial cluster and Special Economic Zones where the connectivity between centers of economic growth is crucial; therefore the maximization of infrastructure use including SHIA airport is extremely crucial.

PT. Angkasa Pura II Persero (PAP II), a state-owned enterprise for airport and air traffic services in Indonesia's western region started the SHIA operation in 1985. The first operation included single terminal that covers 9 million passengers per year; later on, the development continued in 1992 with the opening of second terminal with the same capacity and lastly, the third terminal was built in 2009 with 4 million passenger capacity (PAP-II, 2011). Totally now, SHIA has the capacity to accommodate 22 million passengers.

In strategic choice approach, decision area defines any problem situation as well as an opportunity of choosing an action (Friend and Hickling, 2005). The problem happens in SHIA when the fact shows that SHIA became the 16th world busiest airport in 2010 with 44.39 million passengers (Airport Council International in PAP-II, 2011).This fact illustrates how the existing passenger number is twofold exceed the capacity. Even worse, the statistic and forecast of Passenger Growth done by PAP II shows that in 2015, the passengers will increase up to 54.13 million. As the consequence, SHIA must face the issues of congestion in the terminal building, on the apron and in airport parking lots (JIS, 2012).

Even the Indonesian President believes that there are five reasons why the expansion of SHIA is necessary (Dewangga, 2012);

1. The 6% increase of gross domestic product, worth 1 trillion US dollars, affects the increasing needs of aviation services.
2. The regional ASEAN, East Asia and Asia-Pacific area consensus attempts to strengthen the connectivity and accessibility in the region.
3. This expansion is in line with *Program Master Plan dan Perluasan Pembangunan Ekonomi Indonesia (MP3EI),* a master plan for accelerating Indonesian economic.
4. The strengthened connectivity among ASEAN country is fundamental to the Indonesian involvement in ASEAN Economic Community in 2015
5. The economic benefit such as employments, industries, and services is undeniable.

Based on this reason, challenges of collective decision making with pressure of urgency and competition facing the turbulence (Friend and Hickling, 2005) are obvious.

4.3 Expansion of Soekarno-Hatta International Airport

Reinforced by the opportunity of passenger's problem, PAP II prepared the phasing development strategy. *Grand Design Soekarno-Hatta International Airport* is developed as a great guideline for master-plan creation that has been legalized on the Minister of Transportation decision, number KM48 in 2008 (Sunoko T.S in PAP-II, 2011). This grand design will accommodate the long-term flight service as well as cargo demands. The *renaissance* concept is proposed to anticipate airport expansion for the next 20 year, where the Asia-Pacific area will have more traffic than Europe and America in 2020-2030 (Dewangga, 2012).

This strategy indeed was executed since 2012 with the construction of Teminal 3, the removal of VIP terminal facilities, the construction of the airport railways and the acquisition of the land; the second stage is the revitalization of terminal 1 and 2 along with the construction of cargo and commercial area; and the last construction is the development of new runway and terminal 4 (PAP-II, 2011). To deal with this grand design, several funding have to be allocated. For the projects regarding the land side area, the fund will be taken from the internal treasury of PAP II and the third party capital if it is necessary (PAP-II, 2011). On the other hand, the National Government budget will be used for the land acquisition and the construction of the facilities in the airside area (PAP-II, 2011). However, this expansion is not without limitation. The deputy Ministry of Transportation argued that a new runway development has to deal with the financial limitation regarding land acquisition (Nurhayat, 2014).

No	Activity Object	1st year (2011)	2nd year (2012)	3rd year (2013)	4th year (2014)	5th year (2015)
1	Terminal 3					
2	T1 revitalisation					
3	T2 revitalisation					
4	New Cargo Terminal					
5	Supporting Facility (Accesibility and other facilities)					
6	Integrated Building T1+T2					
7	Land Acquisition for runway 3					
8	Terminal 4 / new airport					

Table 3 SHIA Development Stages Strategy

Source : (PAP-II, 2011)

This case becomes interesting to be analyzed due to the large involvement of many actors. The project value has swung from the value management idea to understanding how stakeholders value different things (O Oliomogbe and J Smith, 2013). Not only did this problem bring the focus of central Government, but also attracted the attention of Private Party.

4.4 The Initiative from a Private Party

The involvement of Japan organization formed in 1974 –JICA- in Indonesia planning practice could be seen in the publication of cooperation memorandum in 2010. The memorandum signed by both Japan and Indonesian government is called "the concept of Metropolitan Priority Area for Investment and Industry (MPA) in Jabodetabek Area". This concept underlines the infrastructure development scheme in Jabodetabek area, and along with this, JICA proposed a master plan study in May 2011 focusing on the crucial infrastructure development to promote further growth in this area that plays fundamental role in Indonesia's economic growth with nine priority sectors (JIS, 2012).

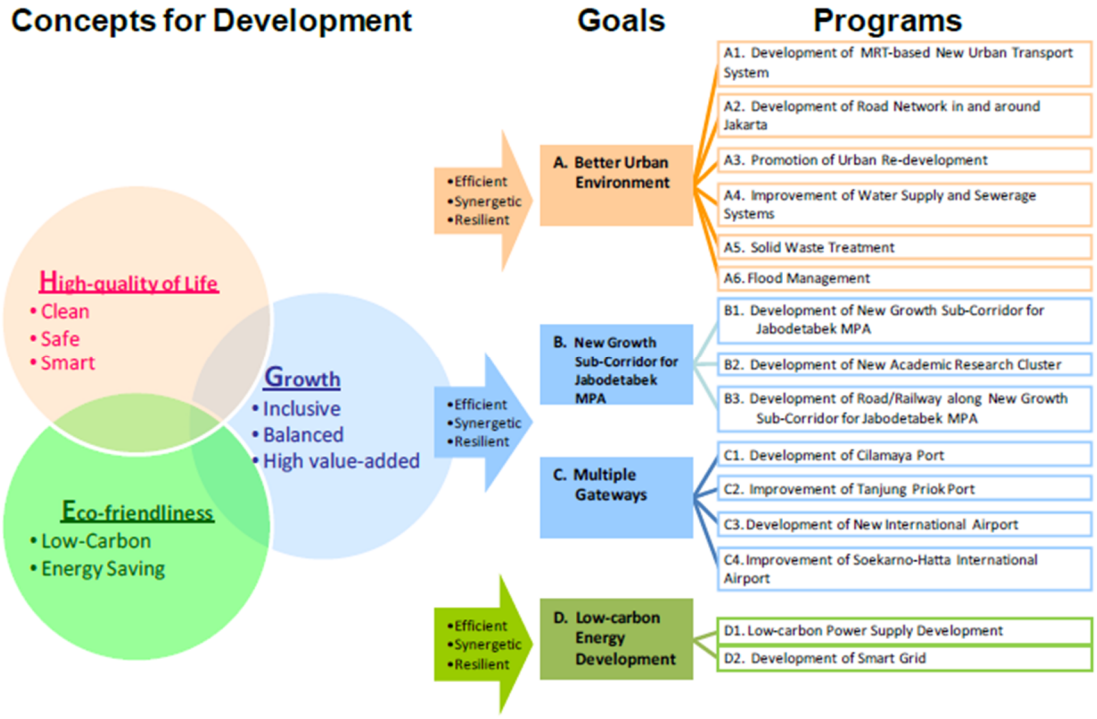


Figure 5 Vision 2030 for Jabodetabek MPA
Source : (CMEA, 2012)

One of these priority sectors is the project for the Master Plan Study on Multi-Airport Development for Greater Jakarta Metropolitan Area in the Republic Indonesia (JICA Master Plan) that includes the development of new airport in the future (JIS, 2012). As can be seen on the picture above, the development of new international airport is needed to support the multiple gateways in order to promote sustainability in terms of efficient, synergetic and resilient economic growth. The uncertainty regarding related decision (see, Friend and Hickling, 2005) is obvious in this case. Interrelated areas proposed by the figure above shows that further the airport development not only has to deal with economic but also sustainable development concept as a whole.

The new airport plan solely aims to accommodate the increasing demand of flight transportation and to accommodate this need, there are three alternative issues that could be done by the authorities. The first alternative is the feasibility of accommodating future demand by SHIA; the second one is the availability for introduction of airline service at other airports; and the third one is the function of the new airport (JICA, 2011b).

ISSUE - 1 Feasibility of Accommodating Future Demand by SH Airport	ISSUE - 2 Availability for Introduction of Airline Service at Other Airports	ISSUE - 3 Functions SH Airport and New Airport

Airport Function			Existing Airport				New Airport
			Soekarno-Hatta	Halim	Pondok Cabe	Curug	
Airline Service	Schedule	Passenger	✓				
		Cargo	✓				
	Charter	Passenger	✓	✓			
		Cargo	✓	✓			
General Aviation	VIP Flight		no acceptance general aviation due to runway capacity	✓			
	Business Aviation			✓			
	Training / Flight School			✓		✓	
	Maintenance				✓	✓	
	Public Aviation (Police)				✓		
Military Aviation			not operated	✓	✓	not operated	

Table 4 Three Alternative Issues to Overcome SHIA's Under Capacity
Source : (JICA, 2011b)

4.4.1 Introduction of Airline Service in Other Airports

Besides the sophisticated Grand Design for SHIA, the Ministry of Transportation also considers the second alternative, which is the airline service launched in Halim Perdanakusuma, Pondok Cabe, and Curug airports. As can be seen on the table above, these three airports will accommodate passenger and cargo service. The main reason for taking this alternative is that although the development of third runway in SHIA is already constructed, it is believed that the capacity still cannot meet the demand.

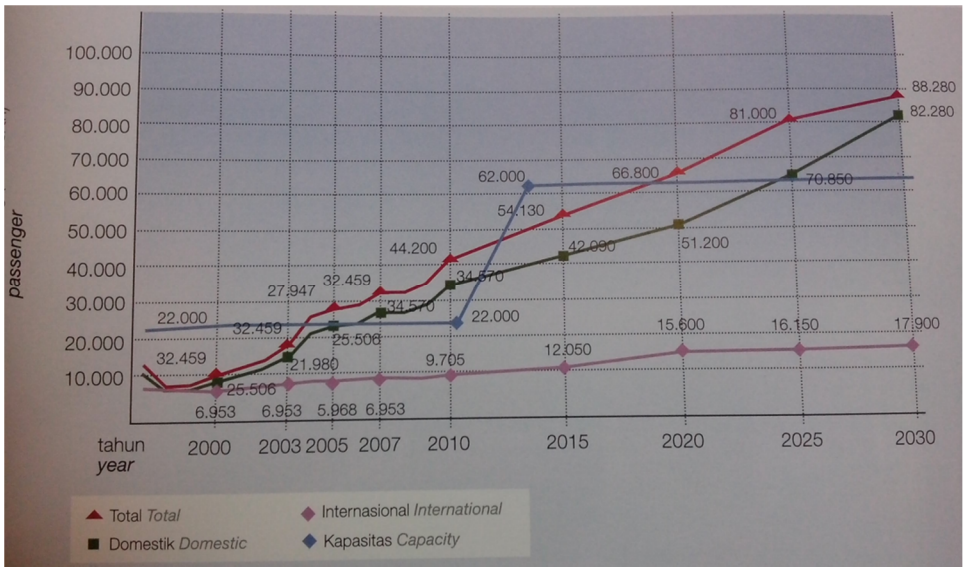


Figure 6 Statistic and Forecast of Passenger Growth
Source :(PAP-II, 2011)

It is clear from Figure 6 that although the Grand Design will take place, SHIA still cannot accommodate the long term airline service demands. If the trends really become reality, SHIA only could handle the 70.85 million passengers, while the forecasted-demand will be more approximately 81 million passengers in 2025. Therefore, the Ministry of Transportation considers the second alternative with the development strategies as follows (JICA, 2011b);

1. Halim Perdanakusuma is suitable for VVIP and business jet flight due to its location close to the capital city, and a high level of security service.
2. Halim Perdanakusuma and other two airports are necessary for training, maintenance and public flight operation.
3. The maintenance scheme of these two airports should be taken into account.

However, upgrading function for these airports is complex in nature. It is clear from the table below that firstly, the insufficient runway becomes the crucial issues. From these three airports, only Halim Perdanakusuma has enough runway length for Boeing 737 operation. Pondok Cabe and Curug airport just have 2,000 m and 1,800 m respectively length of runway. Secondly, Only Curug airport has parallel taxiway and a future development opportunity. Further, in terms of accessibility, passenger terminal availability and precision landing system, only Halim Perdanakusuma is necessary. In terms of stable operation for airline service, only Pondok Cabe airport does not have a hindrance. Halim Perdanakusuma has to deal with military and VVIP operation interruption, whereas Curug airport still has training operation intermingle.

		Halim	Pondok Cabe	Curug
Existing airport facility	Runway	Length : 3,000 m enough for B737 operation	Length : 2,000 m not enough for B737 operation	Length : 1,800 m not enough for B737 operation
	Taxiway	no parallel taxiway restrict on capacity	no parallel taxiway restrict on capacity	parallel taxiway is installed
	Terminal	passenger terminal available	no passenger terminal	no passenger terminal
	Navigation Aids	precision landing system	non-precision landing system	non-precision landing system
Accommodating airline service		only 2.5-3.0 million annual passengers expected	only 2.5 million annual passengers expected	not available
Stable operation for airline service		interruption by military and VVIP operation	no problem in terms of securing slot	intermingled with training operation
Aircraft noise impact		increase of noise impact by jet aircraft	increase of noise impact by jet aircraft	increase of noise impact by jet aircraft
Access road		no problem	through residential area	through residential area
Future development toward outside of airport		difficult due to dense residence and golf course	difficult due to dense residence	assumed to be available

Table 5 Summary of Evaluation for the Introduction of Airline Services

Source : (JICA, 2011b)

4.4.2 Function of a New Airport

Developing new airport tends to attract and generate some uncertainties to find the answer to the SHIA problem. On the one hand, it might open the new opportunity for developing economy or accessibility. On the other hand, the **uncertainties of environment, values and related decision** (see, Friend and Hickling, 2005) seem inevitable.

First, to deal with the uncertainty of environment, there is a study done by JICA (2010) in evaluating the most favorable alternative in combining the airport function between SHIA and the potential new airport later. From this study, the most favorable alternative tries to combine the domestic and international functional allocation between SHIA and the future airport. This evaluation is based on eight main criteria, comparing five scenario of combining function of the airport. The criteria are future demand allocation in 2030, future aircraft movement in 2030, runway capacity, relation between capacity and aircraft movement, user, airport management, correspondence for selection of the management body, and relocation of airline. This new airport is expected to operate in 2019.

Further, this study also shows that the location chosen is southern part of Karawang, a Regency in West Java Province.

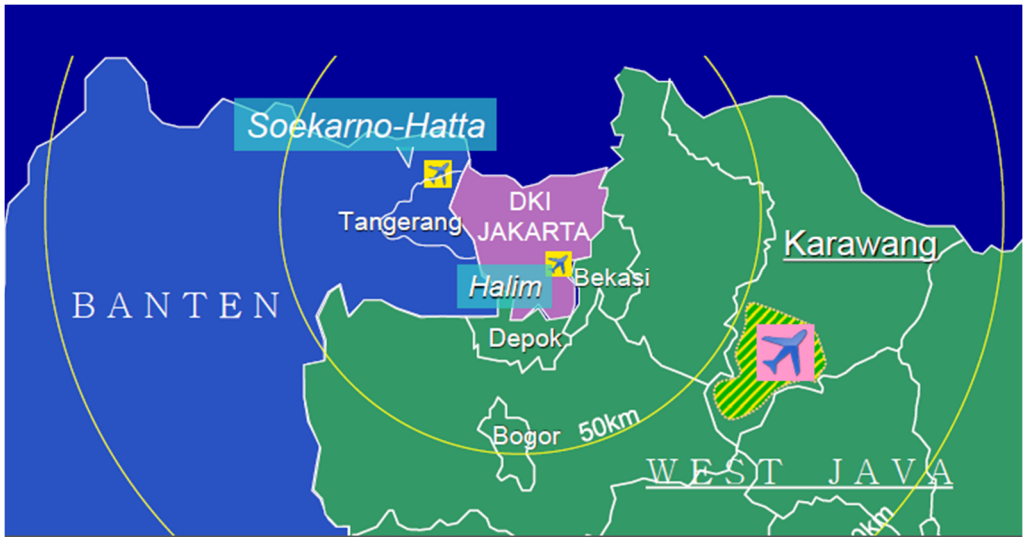


Figure 7 Chosen Location of New Airport
Source : (JICA, 2011a)

Karawang International airport – ambition of third party

As proposed by JICA, Karawang is chosen as the most favorable alternatives due to several reasons. First, among other seven site alternatives, southern part of Karawang has the least number of houses and public facilities to be relocated; secondly, the social economic consideration is also taken into account where this area could accelerate investment in surrounding areas which are Bekasi Industrial Park and Karawang Industrial Park (JICA, 2012). Moreover, the excluding further area from Jakarta, about 100km away, not mountainous area, not wetlands, and not high population density area is also considered from this area to be further new airport development (JICA, 2011b).

Karawang Regency itself is well-known from its agriculture activity, popular as the paddy mow of West Java. In 2007, 30% of the working population was employed in agriculture and fishery fields, while commerce and, manufacturing and industrial work shared almost same percentage which was approximately 20 %. This regency lies in the northern part of West Java Province, consisted of 30 districts and 309 subs districts.

The exact location of proposed airport is basically between Pangkalan and Ciampel district, it will take place in 5 villages. The existing land use for this location is production forest and limited production forest (JICA, 2011a). Therefore, if this location will be used for new international airport development, as many as 4,000 Ha forest areas would have a direct impact. This area function includes main occupations for local peasants, a water catchment area, and biodiversity conservation area. This condition makes the problem complicated because Law number 26 year 2007 requires that as many as 30% of total provincial area has to be allocated as forestry. However, West Java Province's forest only meets 10% of the total area since 2001, and now they attempt to meet this standard (BPLHD-JawaBarat, 2009). If the development of KIA takes place in 4,000 Ha forest area, this condition will contrast the provincial attempts improving their green area. In addition, to prevent the forest loss, the national and provincial regulations also obligate the future replacement of forest area. Recently, the forest management in Java and Madura island is conducted by *Perum Perhutani* (Perhutani) , a state owned company. The Perhutani unit that is responsible for the area under KIA development is *unit 3 – West Java Province, KPH Purwakarta*.

4.5 Boarder Scope of Alternative – Kertajati Airport

Beside KIA, there is another potential project on the Ministry of Transportation agenda which is Kertajati airport. The airport aims to develop the Java Economic Corridor related with President Decree number 32 year 2011 about MP3EI (MoT, 2010). This airport will support the eastern part of West Java Province as a main international gate. In addition, the West Java Province in 2014 claimed that this airport will serve 24 to 30 million passenger per year with two 4,000 meter runways including the development of aerocity (Setda, 2014). Based on the Ministry of Transportation Decree number KM. 457 year 2012, this airport will take place in Kertajati District, Majalengka Regency.

Based on West Java Provincial Regulation number 13 year 2012, the purposes of this development are to support the *Ciayumakajuning* (Cirebon, Indramayu, Majalengka and Kuningan Regency) growth pole; to generate regional economic growth based on Local knowledge; to accommodate West Java Province's competitiveness in terms of investment growth; and to increase investment, industry, commerce, tourism, settlement, and job market. To implement this project, the Provincial Government will take public-private partnership in terms of construction, design and maintenance (JawaBarat, 2010).

The development also includes 3,200 Ha area of aero city that will support the 1.800 Ha airport area (JawaBarat, 2010). The land acquisition started in 2009 that so far spent 565 billion Rupiahs, and the additional 100 billion Rupiahs will be spent in 2014. Overall, at least 8 trillion Rupiahs will be allocated to this new airport development (Setda, 2014). Moreover, it is believed that this airport will start the operational in the end of year 2016.

It is interesting to point out that this 5.000 Ha area is solely for new airport location, whereas there will be further expansion of development area needed to support this airport. If the new airport proposed is legalized, there should be supporting infrastructure to accommodate the

airport needs. This might lead to extra investments which is difficult to propose from the national budget.

The proposal of Kertajati airport becomes crucial in solving the problem of SHIA exceed capacity due to the fact that West Java Province proposed this development in the same time of the willingness of Ministry of Transportation to solve SHIA problem. Instead of gaining support to a consensus, a planning process should deliver local level quality and retain element of top down planning (Woltjer in De Roo et al., 2007). In this case, Kertajati project becomes a competitor to other alternatives due to the fact that *Anggaran Pendapatan dan Belanja Nasional* – the national budget allocation might be difficult to be proposed for several gigantic projects at once.

4.6 Halim PerdanaKusuma – back to the "beginning"

When the actors still struggle with pursuing the best alternative for SHIA problem, the central government finally took an action to overcome this problem. Halim Perdana Kusuma Airport (Halim Airport) started its commercial flight service on 10th of January 2014. The Minister of Transportation on the media said that *Citilink* would be the first airlines flying from Halim Airport with 16 flights (Sandi, 2014a). Undersecretary of Ministry of Transportation also believes that the commercial flight operation in Halim airport is expected to reduce the congestion in SHIA (Sandi, 2014b)

Halim Airport will be operated for a commercial flight for the airline with 100 passengers, and this condition will take 40-50% of Halim Airport capacity; Halim Airport basically can accommodate 21 trips per hour, and as many as 80 % of this number is allocated for scheduled commercial flight where the rest is for non-scheduled one (Fitria, 2014). Although some preparation already made to start commercial flight service in Halim Airport, this solution seems to be the temporary one.

As a proponent to this argument, there is one opposing idea of the commercial operation of Halim Airport. Even the former Head of Air force staff – Marsekal TNI Purnawirawan Chappy Hakim on the media said that the opening of commercial service in Halim Airport to reduce the exceed capacity of SHIA is too naïve (Rahman, 2013). The reason is that this airport basically is not designed for commercial flight; instead it is designed for military needs and VVIP operation. Further, he argued that some flight transfer from SHIA is considered not fair due to the fact that the announcement of this transfer is without the legitimacy from Halim Airport authority.

In addition, Halim Airport also functions as logistic base in the case of disaster or emergency situation like in Aceh Tsunami 2004. It is also argued that Halim Airport which is equipped by subsystem of defense equipment and home base for national defense system is suitable for "exit airport" that every country should have, thus it can be used when there is a national crisis or disaster (Rahman, 2013).

To sum up all the alternatives of the scenarios offered for solving the exceed capacity of Soekarno Hatta, the picture below will describe the process that is going on :

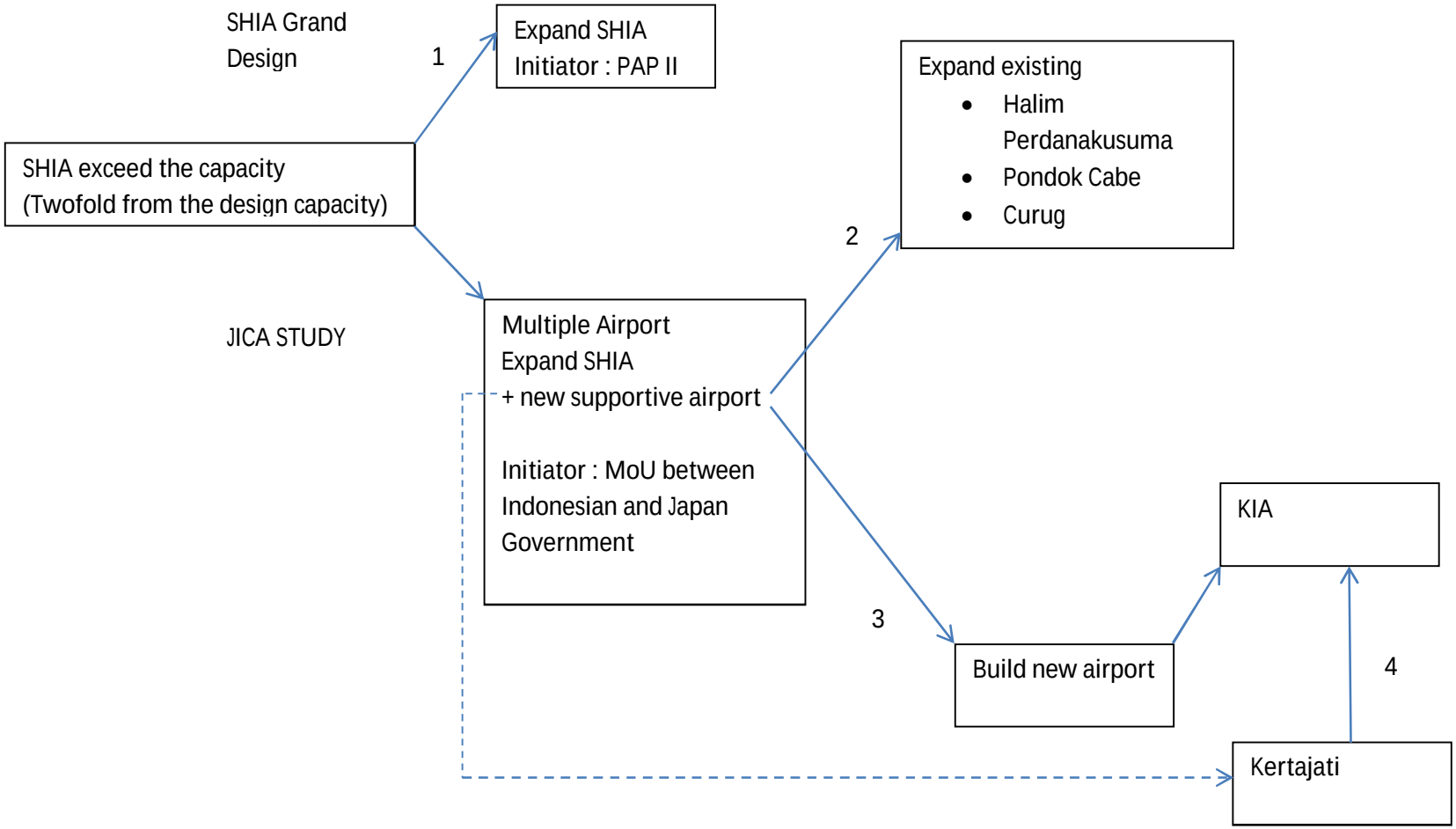


Figure 8 Alternatives Scheme

Chapter 5 – Dealing with Uncertainties: A Mission Impossible

5.1 Introduction

After describing the actual circumstances of case study, this chapter aims to depict about the uncertainties and turbulence occurred in practice as well as the instrument used to address particular problem. The next three sub chapters will be in line with Friend and Hickling (2005) illustration about types of uncertainties which are Uncertainty about working Environment (UE), Uncertainty about guiding Values (UV) and Uncertainty about Related decision (UR).

Before coming into discussion about these uncertainties in the practice, it is crucial to have short explanation about the actors involved and their focuses (see the table below). This is due to the fact that every possible action of the decision making has its opportunity and sometimes conflicts one to another. Therefore, it is important to highlight the different perceptions about the range of options and how they are expressed (Friend and Hickling, 2005). In practice, however, the range of possibilities might be constrained by different participants and different views of option combination (Friend and Hickling, 2005).

The actors and their focuses involved in the arena could be concluded as follows:

	Main duties and function	**Main focus**	**Regulation / Law focus**	**Description**
MoT	Leading Sector	Exceed capacity in Soeta	The Revision of President Regulation number 54 2008 : The location of the new airport will be determined only after BPN (NationalLand Agency) approved laws on land conversion.	"top down" planning executor
CMEA	Head of BKPRN (Badan Koordinasi penataan ruang nasional)	Funding scenario		Review and follow progress more macro-related associated with funding schemes, as a facilitator of MPA as coordinator body of the decision
MoPW	Spatial Planning Technical section of BKPRN	Spatial implication for each alternatives	The Revision of President regulation number 54 2008 RTRWN should be revised	As embedded policy for spatial pattern
National Planning Board	Planning coordination Secretary of BKPRN	Premature plan of the airport	The Revision of President regulation number 54 2008	Importance task in coordinating each actors involved

Perhutani	Operator of Ministry of Forestry as Land Owner	Environmental impacts for replacing forest to airport and cyber city LMDH (Lembaga masyarakat desa hutan)	UU 41/ 1999 PP 72/2010 (forest replacement) The location of the new airport will be determined only after BPN (National Land Agency) approved laws on land conversion.	Responsible for forestry area to maintain conservation area
Karawang Regency		Citizen welfare should be accommodated Flood No producing forest field replacement Disaster mitigation as airport development impacts	President Decree nuber 53 – Karawang as Industrial area, The Revision of President regulation number 54 2008, If the need of airport is urgent the Law number 26, Regency RTRW should be revised should be revised	Follow laws and regulation published in national and provincial level
West Java Province		Southern part development and Kertajati airport	Provincial RTRW	Follow laws and regulation published in national level
JICA	Project Promoter	Develop KIA		Most likely will be investor of KIA development
PAP II	Operational of SHIA and 3 airports	Expansion of SHIA	Ministry of Transportation Decree number KM 48 year 2008	Implement the Grand Design and the commercial activity in 3 airports

Table 6 Stakeholders Focus and Function

5.2 Uncertainties about working Environment in Practice

As has been described on the chapter 2, the Uncertainties about working environment deal with information flows. In the case of megaprojects, sometimes there is a blur role between private and public sector (see, Flyvbjerg et al., 2003). In the early planning process of KIA, it is undeniable that JICA as non-governmental organization plays a significant role. Hereby, the most fundamental dynamic comes from the third party who is in favor of KIA development. The 'power'of JICA may intervene the planning arena. As a super power party that might drive the plan mechanism, JICA has already done the studies for the KIA development plan. These studies are used for solving the uncertainties about working environment in this case. Although this party does not have no more authority regarding the KIA plan, in fact JICA still observes the progress by mobilizing local consultant in proposed area. This organization still strictly follows the progress and intervenes the arena.

Along the interview process with the governmental actors, they use the forecasting coming from this institution. The question arose with this condition, due to optimistic number of passenger demand. In addition, the different data also took place between JICA and PAP II. As a result, instead of making clear information flow, the existence of these data and research tends to make more uncertainty in the arena. Information bias and mismatch understanding is inevitable.

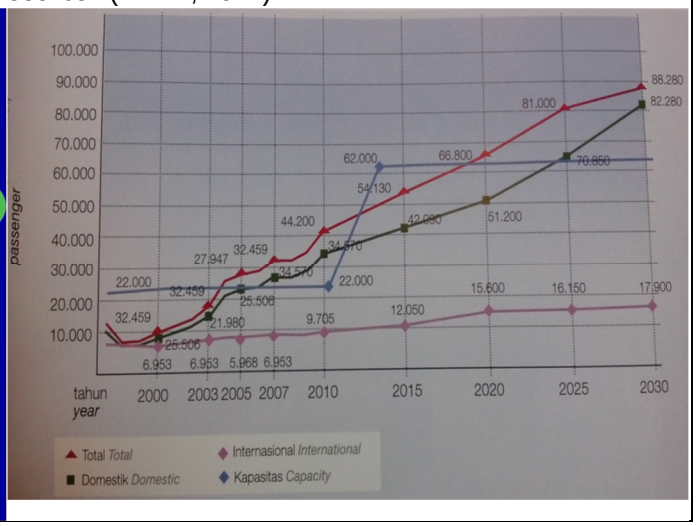
JICA	PAP II
Source : (JICA, 2011a)	Source : (PAP-II, 2011)
	

Table 7 Different Forecasting between JICA and PAP II

From the table above, there is significant different of how the expansion of SHIA could accommodate the future passenger. JICA believes that the expansion only could cover 60 million passengers in 2030; whereas PAP-II as operational company argues that in 2030, the capacity will be at 70.85 million. In the actors involvement in Megaprojects, particular interest groups can stimulate forecast without risk on them (Bruzelius et al., 2002).

It is also worth to underline that from the interview, only less people get accurate information about the development of KIA. Karawang Local Planning Board (Bappeda) argued that they are not well-informed about the detail of KIA process. They only wait for the policy given by the central government to revise the spatial plan in their Municipality.

The other uncertainties under this category have to deal with public participation. Based on Government Regulation number 68 year 2010, it is written that the societies role on spatial planning process are regarding the stages of preparation of the spatial plan, determination of regional development, problem identification, formulation of concept on spatial plan and arrangement of spatial. However, it is worth to point out that the public participation seems to be marginalized on the development of KIA. The fact shows that local communities do not have enough information about the plan. As has been described by the representation of Karawang Regency Government, even the local government first recognition about KIA is from the issue revealed by the media.

The lack of information especially when there is no direct communication between central and local government tends to lead to bigger conflict. The conflict emerges among society from the mismatch situation described above. Since the issue about KIA pops up in the media, rent seeking behavior happens in the area. Particular person has taken the opportunity to convince local people to feel disposed to sell their land nearby the proposed area for KIA; thus, they can

have benefits by more income from incidental task. The contested information about KIA development caused local people confused whether they will sent their vacant land or not.

The conflict among land speculators arose as the direct impact of future high investment prediction. KIA will more or less bring the increase of land value to surrounding area. Not only this airport will generate the new growth pole among extension of Jakarta Metropolitan Area (JMA) and Bandung Metropolitan Area (BMA), but also there is cyber city concept that will be developed. The new city core seems undeniable in this development. In addition, land values theory argued that the closer the distance to the city core, the more expensive the land value would be (von Thunen in Sinclair 1967).

The tension on the society increases from the people who work in the production forestry. In the proposed area, there is one community-based activity that coordinates all the farmer benefits from "tumpang sari" plantation methods. The activity is called *Pemberdayaan Masyarakat Desa Hutan* (PMDH) and the community name is *Lembaga Masyarakat Desa Hutan* (LMDH). They become more sensitive to the land speculators issue. At least 87.7 % of 4,000 Ha proposed area is used for this community activity. They absolutely do not want to lose this area.

5.3 Uncertainties about guiding Values in Practice

As has been explained before, a clear objective is needed in this category of uncertainties. It is obvious from the case study that there is a significant difference of perspective between PAP II development strategy and JICA proposal in order to break through the SHIA capacity problem. Interestingly, although both parties - PAP II and the JICA study team - prepared the solution from the same problem, they came up with the different solution.

JICA comes into arena as an important actor due to the fact this institution obviously might be a solely investor of KIA plan. It is a fact that Japan has many manufacturing investments in Jabotabek area, especially in Karawang industrial area; *PT. Astra Motor* – a distributor company for Japanese motor cycle company- *Honda*, for example, has at least Rp. 15 trillion or approximately €. 1 billion worth of plant construction in this area (Wuryanto, 2013).

JICA and PAP II have different assumptions of the capital resource they should use in the implementation of development stage strategies that has been described earlier. These differences show that the action to prevent the uncertainty of values has to be made. Possibilities for policy guidance, aims clarification, priorities setting, and broad involvement are required (Friend and Hickling, 2005)

In the case study, the first difference between the two actors is obvious from the table below that in the implementation of airside facilities, PAP II wants to use the government funds; meanwhile JICA Study team believed that it supposed to be yen loans. The second difference is more interesting. While PAP II assumes that the operation should be on the PAP II legitimacy, the JICA Study teams proposes the participation from the private party both in terms of build the infrastructure and the business opportunity (see, table below). From this explanation, it might be clear that the interest of JICA providing the study for multiple airport development for Greater Jakarta Metropolitan Area is to open the business opportunity for the third party.

Project item	Capital sources AP-II is assumed to utilize	Capital sources the Study Team is assumed to utilize
Package (1) Airside (new construction of taxiway, and upgrade of taxiway and apron)	Implemented as public works utilizing government funds → After implementation, assets are transferred to AP-II as equity or grants?	Implemented as public works utilizing yen loans
Package (2) Terminal ancillary work (people mover, utilities, etc.)	AP-II internal reserve or funds procured from the domestic market with AP-II as the main borrower.	Implemented as public works as in Package (1), utilizing yen loans. However, if not treated as public works, develop on the basis of a JV as in Package (3)
Package (3) Upgrade and expansion of terminal buildings		Separate Soekarno Hatta Airport operating company from AP-II, and undertake development of the terminal building after receiving third party participation, and operate the business for a certain period of time
Package (4) New construction of cargo village	Joint venture including third party participation	Construction based on the concession system with third party participation
Package (5) Commercial area (commercial, hotel, office, parking facilities)		

Table 8 Utilization of Development Strategies

Source : (JIS, 2012)

Later, the study conducted by JIS (JapanTerminalBuilding, Itochu, Shimizu) in 2012 explains how Japanese involvement is needed in terms of investment, engineering, procurement and management, and operation and management and how JICA goes further by propose the southern side of Karawang as an airport for domestic and international services.

The dependency among stakeholders 'preferences become the main issues in this case. There are several social project characteristics that should be taken into account in classifying the manageability of the project. Major dependence on user preferences, variety between preferences and aims of parties, dynamic in preferences and aims of parties, great deal of blockage power held by third parties, long transformation time and major influence of project on social environment are the social characteristics that makes the project becomes less manageable (Bruijn and Heuvelhof, 2002).

Friend and Hickling (2005) underline the chance of policy guidance to deal with uncertainties regarding different values. In general, there are two regulations functioning as a base for Indonesia development plan which are statutory and non-statutory plans. These regulations could be tools for minimizing these uncertainties (see, Friend and Hickling 2005). On the one hand, statutory plans are based on the Law number 25 year 2004 about the National Development Plan System and Law number 26 year 2007 about Spatial Plan. On the other hand, the non-statutory plan takes place in practice as MP3EI which is based on Presidential Decree number 32 year 2011. The scope itself is divided into national and local plans, with three temporal dimensions, short term (annually), mid-term (five years) and long term development plan (25-30 years).

Friend and Hickling (2005) and their strategic choice approach concept believe that although it is hard in practice, actors have to manage uncertainties with a dynamic view. In case of KIA, the dynamic occurs regarding the spatial plan adjustment due to some legalization process of policies. In terms of The National Spatial Planning Act, for instance, even though at the moment the process of reviewing RTRWN (National Spatial Plan) content is still going on, the actors in favor of KIA is still not sure yet to put this airport on the plan because every council member may have different point of view about the conflict and this condition may become a symptom of other conflict. To anticipate the development, Karawang Regency government did organize stakeholders meetings, especially regarding compensation and resettlement impacts.

5.4 Uncertainties about Related decision in Practice

The dependency of stakeholders' preferences is obvious in the decision making process (see: Appendix 1). Thus, the openness of collaborative planning, negotiation and broader agenda is vital to avoid the uncertainty of related decision (Friend and Hickling, 2005). The Ministry of Transportation still waits for the agreement to develop the plan from the Ministry of Public Works regarding spatial plan regulation. The national spatial plan that is legitimized by the Law number 26 year 2007 has not yet included the development of KIA. The long process for adjustment among hierarchal spatial plan is waiting, whereas based on the Figure 6, SHIA demands could not wait too long.

JICA comes further with the broader agenda setting. They do not only come with the capacity problem but also put more emphasis on the problems like loss of business opportunities, inadequate security measures and aging facilities came up into discussion (JIS, 2012). Therefore, Japan private sector groups try to intervene the arena. The private groups argued that in 2017 there will be at least 47 million domestic passengers and 13 million international passengers per year needed to be facilitated, thus the development of the new airport should begin in 2017 (JIS, 2012). Furthermore, from the economic perspective, SHIA shows low non-aviation business revenue if it is compared to international standard which is only 20% of total revenue; therefore JIS (2012) suggests the improvement in terms of terminal buildings, quality of shops and inclusion, attractive commercial facilities.

Among the alternatives offered, the table below summarizes the main important actors for each issue.

	Expansion of SHIA	**Introduction of airlines service in 3 airport**	**Multiple airport (building a new airport)**	
			KIA	Kertajati
Important Stakeholders	Ministry of Transportation, PAP II, Tangerang Municipality, Tangerang Regency	Ministry of Transportation, PAP II, Ministry of *BUMN* (state owned-company), Indonesian Air forces	JICA Karawang Regency	West Java Province
Mean / instruments	Grand Design SHIA Ministry of	Ministry of Transportation	Vision 2030 for Jabodetabek MPA	Provincial Spatial Plan

	Transportation Decree number KM 48 year 2008	Decree number 369 year 2013	(West Java Provincial Regulation number 13 year 2012), Transportation Decree number KM. 457 year 2012.

Table 9 The Main Actors of Alternative Issues

Beside these main actors, there are many other actors intervene the decision making process. The tensions among these actors start with the Japan's interest in industrial investment through JICA. Their interests is reflected by their attempts to convince the central government in order to develop new airport in Karawang industrial zone instead of develop Kertajati airport that has already the legitimation. The tension between KIA and Kertajati seems obvious because these two alternatives come into the same agenda. West Java Province offers Kertajati to generate the economic development in the southern part of West Java especially in Kertajati district. On the other hand, Karawang Local Government that knows this agenda from the media thought that KIA will generate regional economic in Ciampel districts. These conflicting goals according to Christensen (1985) need bargaining as a mode for solve the condition where politics and antagonists communication influence the level of conflict perception. As a proponent to this argument, West Java Province's Planning Board (Bappeda) used the adjustment of Province Spatial Plan as a mean for bargaining. They make a planning condition to legitimate KIA development into the Province Spatial Plan. They will not adjust the spatial plan before the national budget for Kertajati airport is approved.

The tension among JICA, Karawang Regency and West Java Province might be seen from the table below;

Central Government Ministry of Transportation	**Japan (JICA)**	**Karawang Regency**	**West Java Province**
Interest :			
Additional capacity for International airport	Industry investment	Generate regional economic in Ciampel districts	Generate regional economic in Kertajati area
Actions :			
Developing scenario Revitalization Existing Airport Soeta and KIA new airport Soeta and KIA, and Kertajati new airport	Forecasting, support the studies for the second scenario	Doing preliminary study for the second scenario	Proposed Kertajati airport on the spatial plan for the third scenario

Table 10 Tensions among JICA, Karawang Regency and West Java Province

Later on, it is clear that every single actor (see, appendix 1) is related one to another and basically it is necessary to make a room for coordination among those actors. In practice, the

existing mean of coordination is only BKPRN (*Badan Koordinasi Penataan Ruang)* – Spatial Planning Coordination Committee. This organization, however, does not accommodate yet all the interest and the agreement has not obtained yet. Each stakeholder attempts to go on with their normative tasks and functions. As such, there is no breakthrough to solve this deadlock.

Chapter 6 – Research Findings and Conclusion

6.1 Research Findings and Recommendations – "a vicious circle relationship" among three types of uncertainties

It comes to a surprise then, that the way uncertainties occurred in planning arena is not easy to be defined. The generalization about uncertainties that Friend and Hickling (2005) try to specify basically does not clearly ring the true when tested in the practice. It is mainly because practice is shaped by complex struggles between various driving forces. Friend and Hickling (2005) argue that each of three demands dealing with uncertainties (demands of more information, clear objectives and more co-ordination) can be considered as different effort managing uncertainty. However in the case study, it is found that there is a cause-effect relation from one type of uncertainties to another.

For instance, in dealing with uncertainty about working environment, each actor has already done a set of research and studies or what Friend and Hickling called "commission specialist consultants". JICA and PAP II used two different surveys, researches, and forecasting. However, with more than one study, the decision making process tends to be blur. The different studies make information bias among the actors that use these two analyses. Instead of becoming tools to reduce the uncertainty, the studies worsen the planning arena by generating dualistic perspective.

As a result, this condition leads to uncertainty regarding values. The setting priorities of these two organizations are different shown in the studies. While PAP II focuses on maximizing the function of SHIA, JICA tends to expand the investment in Karawang industrial area. Each of them uses their own study as logic behind their priorities as has been explained on Chapter 5. Thus, to some extent the aims of particular development might be blur that later on, this condition leads to uncertainties about guiding values.

To prevent the uncertainties about guiding values, there are statutory and non-statutory plans used in Indonesia planning practice. Regarding this, each actor has their own legitimation as the attempt to face the second type of uncertainties. PAP II as the actor in favor of SHIA expansion uses the Minister of Transportation decision number KM48 year 2008. Next, JICA as the idea generator of multiple airport applies Jabodetabek MPA Strategic Plan and Decree number 369 year 2013 and West Java Province as the promoter of Kertajati airport utilizes the West Java Provincial Regulation number 13 year 2012 and the Minister of Transportation Decree number KM 457 year 2012. However, this wide range of policy has distinct focus that need to be decided (see table below). This circumstance makes the uncertainties regarding related decision have to be taken into account. The efforts facing the second type of uncertainties bring the turbulence regarding the focus of decision that is still not linked one to another. For instance, there is a mismatch focus regarding the supported infrastructure and the growth pole.

Scenario	Needs to be decided	Actors	Arguments	Legitimation
1. SHIA Expansion	Land acquisition Issue of aging facilities Is the additional runway enough?	Ministry of Transportation PAP II	*renaissance* concept to anticipate airport expansion for the next 20 year, through SHIA Grand Design	the Minister of Transportation decision, number KM48 year 2008
2. Multiple airport (SHIA + existing supportive airport (Halim Perdana Kusuma))	No parallel taxiway and future development authority Has to deal with military and VVIP operation interruption	JICA (idea generator) Ministry of Transportation	JICA Studies (2011)	Jabodetabek MPA Strategic Plan (Mou Japan-Indonesian Government) Decree number 369 year 2013
3. Multiple airport (SHIA + new supportive airport (KIA))	Land Acquisition and replacement of forestry area Supporting Infrastructure Funding Growth Pole – regarding spatial plan adjustment	JICA (idea generator) Ministry of Transportation Karawang Local Government	JICA Studies	Jabodetabek MPA Strategic Plan (Mou Japan-Indonesian Government)
4. Multiple airport + new supportive airport (Kertajati)	Growth Pole – regarding spatial adjustment Funding	West Java Province Ministry of Transportation	President Decree number 32 year 2011 about MP3EI	West Java Provincial Regulation number 13 year 2012, Minister of Transportation Decree number KM. 457 year 2012.

Table 11 The Conclusion on Actors Behavior

In practice, this organization, however, does not accommodate all the interest and the agreement has not obtained yet (see the appendix 1). Each stakeholder attempts to go on with their normative tasks and functions. As such, there is no breakthrough to solve this deadlock.

Even worse, when these parties want to accommodate related decision, broaden the agendas, the only existing tool of coordination is BKPRN (*Badan Koordinasi Penataan Ruang*) – Spatial Planning Coordination Committee. From this collaborative effort, the stakeholders start to realize that there are other related sectors that still have insufficient knowledge or information. Taking for example, the Ministry of Public works and the National Planning Board underline the externalities of new growth pole created by both development KIA and Kertajati airport. They

convince that there should be careful understanding of the impact, not just a piecemeal of information. Again! They come into lack of information, in other words, uncertainties about working environment.

Friend and Hickling (2005) also believe that in terms of managing uncertainty through time, it is possible to consider the dynamic view. It is obvious in practice that in terms of dynamic view, there is a cyclic relationship among three uncertainties that are offered by Friend and Hickling (2005). Although, basically Friend and Hickling (2005) already accommodate the linkage among those three, they limited this interconnectedness solely when it comes to related decision and boarder planning problem and not see them beforehand. It is understandable because they just consider the communication and human dimension when it comes into related decision. However, in the case study where the multi-party comes from the beginning of the problem (uncertainties about value, and working environment), the cyclic relationship among uncertainties is undeniable influencing the arena from the first start.

Taking this case study as a reflection, now it is argued that there is a need for further study about the interconnectedness of these three types of uncertainties, especially in the context of multi stakeholder's settings that comes earlier and how they should deal with this vicious cyclic process of dealing with uncertainties.

6.2 Conclusion

In a nutshell, multi-actors involvement has become fundamental aspect in early beginning of megaproject planning process. The involvement of diverse stakeholders more or less brings the uncertainties in planning arena. This condition is clearly depicted in Indonesia's planning practice when decentralization shifts emphasize from structural efficiency model to local democracy model. Therefore, promoting new megaproject becomes difficult because the decision makers' decision highly depends on uncertain factors without any guidance in the past.

Given that, then some might ask "*how do planning actors deal with the uncertainty in megaproject planning process?*". Inspiring by the question above, this research aims to give a greater insight of uncertainty happens on megaproject decision making process. To deal with this, strategic choice approach is used as a baseline theory helping to explore the tools dealing with uncertainties in the current practice of the case study. This approach is a part of communicative turn evolving practical, flexible, and consistent way to connect context, content, process and outcomes in multi-party setting.

To impose the theory to the practice, this research used the exceed capacity problem of SHIA as case study. This case study is chosen as a representative of multi-party settings where diverse actors pursue their alternatives along with distinguish interest behind. Later on, to answer the question above, this research uses narrative descriptive approach and storytelling to portray the uncertainty happens in reality.

This research zoomed in the three types of uncertainties by Friend and Hickling (2005) which are uncertainties about working environment, about guiding values and about related decision to categorize the turbulence in practice. There are two notable things to bear in mind regarding this. Firstly, the decision area of this research is the twofold exceed capacity of SHIA that later

gives a call to the involvement of many actors offering various alternatives from the very beginning. Secondly, based on the analysis this research surprisingly found that in practice, many instrument can be used to overcome the uncertainties. However, the attempts to reduce certain type of uncertainties lead to another type of uncertainties rather than minimize the turbulences and leads to a vicious circle relationship. However, this relationship needs further study to capture more evidence in other megaproject planning process.

Appendix 1 – Interconnected Interest among Actors

from \ to	Ministry of Transportation	CMEA	National Planning Board	Ministry of Public Works	Perhutani & Ministry of Forestry	Karawang Regency	West Java Province	JICA	PAP II
Ministry of Transportation		Coordination as head of BKPRN Funding scenario MP3EI scheme	Coordination as secretary of BKPRN	Coordination as technical section of BKPRN Revision of RTRWN	Land location (as land owner)	Location of new airport (alternatives KIA) Revision of RTRW	Location of new airport (alternatives Kertajati) Revision of RTRW	Project promoter Funding in private sector	The operational of SHIA and three other airport
CMEA	Progress of the development scenario			RTRWN – regarding fast track project		RTRWD – Provincial level	RTRWD – Regency level		
National Planning Board	Premature top down planning	Law and regulation Mp3EI scheme		RTRWN – regarding fast track project		Premature project	Kerta Jati airport		
Ministry of Public Works	RTRWN issues	Coordination with other stake holders			Ensuring zoning regulation is fulfilled	Accommodate national spatial plan	Accommodate national spatial plan		
Perhutani & Ministry of Forestry	Producing Forest Field Replacement (According to Government Regulation No.60 year 2012).	Law and regulation embedded KIA as one of MPA project	Coordination with other stake holders	Land use exchange		Land use exchange	Land use exchange		
Karawang Regency	Community participation needed	Implementing policies issued by CMEA	Need information feed	Mitigation impacts should be accommodate related to spatial pattern	Accommodate LMDH				
West Java Province	Priority of Kertajati airport	Implementing policies issued by CMEA	Need information feed	New growth pole in the southern part of west Java					
JICA	The need of developing KIA as new gate of industrial investment	Accommodate every law and regulation issued by each stake holders							
PAP II	The operational of SHIA and three airports	The funding scenario for Grand Design		Accommodate the land acquisition in the spatial plan					

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