

Towards Green Procurement in Indonesia: Lesson Learned from Canada and Its Relevance to Indonesian Context

THESIS

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Abstract

Demands for inclusion environmental consideration in almost all development activity is increasing. Green procurement which includes the environmental consideration in its process is needed to help in minimizing environmental impacts caused by procuring of goods/services and works especially for infrastructure development. Green procurement is viewed as an important environmental policy instrument and together with other environmental policy instruments may helps in minimizing environmental impacts and in broader scope, it helps in achieving sustainable development goals. Many developed countries has implemented green procurement and get some benefit from its implementation. Most of developing countries including Indonesia are left behind in green procurement implementation. Regarding to the needs and demands to consider environmental aspect, Indonesia which has no experiences in green procurement needs to get the lessons from experienced country (Canada) before implementing green procurement.

This research explores about the possibility of green procurement implementation in Indonesia. The objective of this research is to get clear understanding of the importance of green procurement and pre-condition factors that influence to the success of its implementation. Analysis of that possibility considers the pre-condition factors which consist of political will and regulations; institutional capacity; human resources capability; and supports from other actors outside government and also process implementation. The analysis also considers the experiences from Canada which is regarded in many articles/reports as advanced country in implementing green procurement. Because Indonesia has not implemented green procurement yet, there are some weaknesses in its pre-condition factors especially in political will and regulations and institutional capacity. Clear and integrated policy on green procurement followed by good institutional capacity and human resources capability in Canada can be taken as lessons for developing green procurement in Indonesia.

Regarding to Indonesia condition and lessons from Canada, there are some recommendations to develop green procurement in Indonesia which are (i) developing political will (policy) and related regulations on green procurement; (ii) improving institutional capacity especially for government institution; (iii) increasing human resources capability to support green procurement practices; (iv) increasing support from other actors both public and private; and (v) improving the current procurement process towards green procurement implementation. From those recommendation and considering Indonesia condition, developing political will (policy) and related regulations on green procurement can be placed as the first priority to be developed towards green procurement implementation in Indonesia. This is because policy on green procurement will give broader changes to the current procurement practices in Indonesia.

Keywords: *green procurement, pre-condition aspects, environmental consideration, enviromental impacts, political will, institutional capacity.*

Preface

The idea of this master thesis was beginning in Groningen when I followed Environmental and Infrastructure Planning course by Prof. E.J.M.M. Arts in *Rijksuniversiteit Groningen (RuG)*, the Netherlands. Procurement and environment has relationship in planning, so that I am very interested in elaborating this theme especially for developing green procurement in Indonesia which has not implemented it yet. This condition has motivated me to study about procurement that considers environmental aspects. In addition, this theme is related to my daily assignment in Indonesia to evaluate procurement process in some projects/works in my office.

This master thesis is focusing on green procurement development in Indonesia considering some lessons from Canada as an experienced country in green procurement implementation. The main theme of this master thesis is on the pre-condition factors in developing green procurement which consist of political will and regulations, institutional capacity, human resources development in procurement, and supports from other actors. Using those factors, I analyze the possibility of green procurement implementation in Indonesia and consider some lessons taken from Canada experiences. This master thesis also gives some strategy recommendations for green procurement implementation in Indonesia. In addition, this master thesis is also a final part of my study in Double Master Degree Programme of Environmental and Infrastructure Planning (Faculty of Spatial Science, RuG, the Netherlands) and Development Planning and Infrastructure Management (School of Architecture, Planning and Policy Development, ITB, Indonesia).

I realized that there are many supports to me for finishing my thesis. First of all, I would like to express my greatest gratitude to Allah SWT for blessing me to finish my study and thesis in the Netherlands. I believe without His blessing, I cannot finish my study and thesis on time. Then I would like to address my special thanks to my supervisor, Prof. E.J.M.M. Arts (RuG) for guiding me in writing my thesis in RuG, the Netherlands. I would also like to thank to Dr. Widiarto (ITB) as my second supervisor and Prof. Tommy Firman (ITB) for giving me some comments, criticisms, and suggestions to my thesis. Respectively, I would like to show my thanks to all my lectures and faculty staff members in ITB and RuG, and also to lectures in ITB Language Center, especially Dr. Bambang Supriyanto. I would like to express my appreciation for the *Bappenas* (National Development Planning Board) and my institution *Departemen Kelautan dan Perikanan* (Ministry of Marine Affairs and Fisheries) for giving me an opportunity to study in ITB-RUG, and also to the Netherland Education Support Office (NESO) through StuNed program for giving me institutional and financial support. I also want to give my gratitude to all of my colleagues in DD'05 and my classmates both in ITB and RuG. Last but not least, great thanks are also given to my lovely family in Bandung, Indonesia for their support and 'someone special' for her support during my study in Groningen.

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Chapter 1

Introduction

1.1. Background

Existences of sustainable development and environmental impact assessment concept influence many activities to consider environmental aspects in their implementation. According to the sustainability concept and pressure to implement it in all level of governance, many countries have introduced initiatives to reduce environmental impact in their development. Procurement activities related to the procuring of goods/works can be one of instruments that may helps to minimize the environmental impact. Procurement is viewed to achieve it because procurement of goods/works that consider environmental aspect is expected to help in minimizing impacts on environment. For example, it can be seen in procuring of infrastructure project that directly or indirectly gives impact to environment at the time of constructions. Aitken (2005) said that involvement of huge amount of money in procurement activities, directly or indirectly, will influence to the environment because goods/services and works procured have chance to give environmental impacts. Related to that many government thinks that (public) procurement can become an environmental instrument to help in minimizing impacts on environment.

According to that, many countries make policies and programs that push environmental consideration to be applied in the procurement process which is viewed as one of instruments to achieve sustainable development goal (OECD¹, 2002 in Johnstone and Erdlenburch (ed.), 2003). It process will encourages relevant authorities at all level to implement the sustainable development concept into decision making and it also promote the public procurement policies which consider environmental requirement in process of implementation. To achieve further environmental performance of government authorities and also companies/private sectors, there are some policy instruments that can be used and one of those instruments is procurement with environmental requirement or also called as *sustainable/green procurement* (Faith-Ell, 2005). Green procurement, where environmental aspects take into account in the process, has become one of important instruments used by companies or authorities to get better environmental performance of products and services (Marron, 2003 in Faith-Ell and Balfors, 2005). Green procurement as a policy instrument may helps government and other authorities to implement their environmental policies to achieve general goal of sustainable development (OECD, 2003).

Previous explanation shows that sustainable procurement or green procurement is important. There are some reasons why green procurement is important such as it can reduce environmental impacts from public consumption; promote a market for greener products; help to advance an environmental agenda especially in certain political environment where the environment is not a priority; green procurement can make significant difference to an organization's performance

¹ *OECD (Organization for Economic Co-operation and Development) is an organization of several countries that has aims to achieve highest sustainable economic growth, to contribute to sound economic expansion in the process of economic development, and to contribute to the expansion of world trade on a multilateral, non-discriminatory basis on accordance with international obligations.*

and increase knowledge and transparency in international markets (Danish Environmental Protection Agency, 2003; Siemens, 2003; Bratasida, 2002). A study conducted by Erikson and Norlen in 1998 (Johnstone, 2003) showed that although the environmental requirements resulted in higher costs, several advantages of green procurements could be identified. The main advantage was found to be a rise in the environmental awareness among clients, contractors, and suppliers (Faith-Ell and Balfors, 2005). Those explanations are supported by Legault (2000) in his paper. He said that green public procurement has many benefits to government such as cost saving, enhanced credibility of government, and also improved employee awareness on environment. It is also strengthening market demand for environmental goods/services and greater environmental awareness in industry/producer.

Besides the advantages/benefits of green procurement, there has to be realized that implementation of green procurement is not easy. It is caused by some barriers and challenges faced during the implementation of green procurement. Siemens (2003) has recognized that at least there are three barriers to effective and efficient green procurement program which are management and organizational barriers; budget and financial barriers; and information barriers. Bouwer, et.al (2006) also stated some barriers that inhibit to the success of green procurement implementation such as lack of environmental knowledge, lack of managerial and political support, lack of tool and information, lack of training for the involved staff, and misinterpretation that green products/services/works are always more expensive. Misinterpretation of high cost on green products/services/works is also stated as a significant barrier in the initial stage of the introduction of green procurement (Aitken, 2005).

To develop the success of green procurement implementation, it is necessary to know its implementation in experienced countries. Many western countries, especially in Europe, North America, and other developed country have adopted and implemented the green procurement as an instrument of environmental policy (OECD, 2003; Marron, 2003). That condition is a form as a contribution of many countries in their policy to achieve global commitment in sustainable development. An example of experienced country that is success in green procurement development is Canada. Canada is one of the countries in North America and a member of OECD that has implemented green procurement can be called as an established country in implementing green procurement (Commission for Environmental Cooperation of North America, 2003; Aitken, 2005 p.3).

Procurement activities included the purchasing of goods/services and the construction works such as infrastructure development involves a huge amount of money. For example, Federal Government of Canada spent almost \$11.6 billion for those activities (Price Waterhouse report, 1996 in Legault, 2000). Canada realized that procurement activities have considerable impact not only on economy but also on environment because procuring of goods/services and especially, infrastructure development works will give tremendous impacts on environment (Legault, 2000). Involvement of huge money and impacts on environment caused by procurement activities has encouraged Government of Canada to concern in improving procurement process (Environment Canada, 2000). Thus, Government of Canada realized the importance of green procurement including not only for goods but also for infrastructure works and stated that green procurement is one of environmental policy instruments to support Canadian Sustainable Development goals.

Since 1988, Government Canada issued the Environmental Choice Program (ECP) that tries to procure green goods/services and works for their needs and this is a

starting point to include the environmental consideration in procurement process (Environment Canada, 2000). This action is followed by other actions to support the green procurement implementation. In brief, Canada has had long history and experiences in developing the green procurement in framework of achieving sustainable development.

Unlike in the developed countries, developing countries pay less attention to environment in their development activities. They tend to chase the economy aspect rather than balancing it with environmental consideration. It also happens in procurement activities in developing countries that there is less attention on environmental consideration. OECD (2003) reports that green procurement are more conducted and established in developed countries rather than those in developing countries. The procurement process in developing countries tends to focus only on good governance principles such as efficiency, effectiveness, fairness, transparency, non-discriminatory, and accountability (Bratasida, 2005).

Indonesia, as one of developing countries, faced similar condition regarding to the procurement process. Actually, awareness about the environmental impacts and sustainable development in Indonesia has been recognized. Even, Government of Indonesia started the commitment in sustainable development in the late of 1970s. This effort is conducting till now, but the atmosphere of environmental consideration as part of sustainable development is not implemented yet in the procurement process (Bratasida, 2002).

Procurement process, both for goods provision and for infrastructure works, in Indonesia has been arranged in Presidential Decree No. 18/2000 and it was revised by Presidential Decree No. 80/2003 (State Secretariat of Indonesia, 2003). Both of them more focus on good governance principles such as transparency, fairness, and accountability and less attention to put environmental requirement to the procurement process. This condition is supported by the World Bank Report (2001)² about procurement assessment that public procurement process in Indonesia focuses on good governance implementation. From that report, the environmental aspect is not the main focus to be assessed in the procurement process in Indonesia although it is involved huge amount of money on the government expenditure for procurement. Based on Asian Development Bank (ADB) report (2005), Government of Indonesia expenditure (only Central Government) was more than \$30.4 billion and from that amount, almost \$8.5 billion was spent for goods/services and also infrastructure works in fiscal year 2005. It means that procurement in Indonesia definitely has impact to other aspect included the impacts on environment both directly and indirectly.

Bratasida and Johannsen (2002) in their paper supposed that there will be some challenges of green procurement implementation, not only in Indonesia but also in other developing countries, such as low level political will to address environmental issues; inadequate law enforcement; lack of integrated environmental management policies; lack of multi stakeholder forum in the national/local level; lack of financial as well as knowledgeable human resources. Purnama (2003) explained that Government of Indonesia still gives lower priority for environmental aspect not only in policy levels but also in its implementation. In short, it is needed to put environmental considerations into procurement decisions both for goods/services provision and infrastructure works to help in achieving the sustainable development

² World Bank Report No. 21832-IND (2001), Country Procurement Assessment Report: Reforming the Public Procurement System. (Country: Indonesia).

goals which are become common focus on all development activities included infrastructure development such as road infrastructure (Indonesian Ministry of Environment/IME, 2004).

According to the challenges in developing countries such as Indonesia, it is needed to know how the green procurement in Indonesia can be implemented. In the context of Indonesia, as explained in previous paragraph, it is needed to achieve environmental performance in the procurement process because there is less attention to put environmental aspect in that process. Environmental consideration should be an important aspect alongside the good governance aspects in procurement process because the impact of procurement activities to environment is significant, especially in procurement for infrastructure development.

This research intends to understand the possibility of green procurement implementation in Indonesia through the understanding of pre-condition factors which will support green procurement implementation. Relationship between green procurement and environmental impact assessment (EIA) will also be discussed through the concept of environmental management plan (EMP) as inputs for environmental consideration which is needed in green procurement process, especially in procuring infrastructure development. This research also considers some lessons from Canada as an experienced country in green procurement implementation.

1.2. Research Objective

The objective of this research is to get clear understanding of the importance of green procurement and pre-condition factors that influence to the success of its implementation. This research also tries to obtain some recommendations for appropriate approach in implementing green procurement in Indonesia considering lessons of green procurement implementation from experienced country, in this case is Canada.

1.3. Research Questions

Through research problem and research objective, the main research question of this study is *how to implement the green procurement concept in the context of Indonesia*. In order to support the main research question, there are several supporting research questions:

1. *What are the main pre-condition factors to develop good green procurement implementation?*

The main pre-condition factors for developing green procurement are important. Understanding of those factors will help to achieve good green procurement implementation especially for the country who has not implemented yet.

2. *How the green procurement concept is implemented in an experienced country (Canada)?*

Green procurement implementation has been done in some developed countries included Canada as one of experienced country in its implementation. Through this question, it will be discussed about the precondition factors that important to develop green procurement and what is (are) the constraints in its implementation. In short, this question will help for understanding the important lessons from green procurement implementation in Canada.

3. *Is there possibility to implement the green procurement in Indonesia and what lessons can be learned from Canada experiences?*

After discussing and analyzing the green procurement implementation in Canada, the possibility of it in Indonesia will be discussed. The focus is on the pre-

condition factors that develop green procurement implementation. Firstly, the comparison condition between Canada and Indonesia will be discussed to understand how the difference conditions between them. Then, it will analyze the possibility of green procurement implementation in Indonesia based on Indonesian condition and what lessons can be learned from Canada experiences that useful for Indonesian context. It also discusses the constraints or challenges in implementing green procurement. In this part, it will be given an example of green procurement for road development. In short, this question will help to understand some important factors in implementing green procurement concept in Indonesian context based on Canada experiences.

1.4. Scope of Research

Scope and limitation of the research is needed for focusing the analysis. This research is about the green procurement and its important pre-condition factors to develop the implementation of green procurement in Indonesia in order to achieve better environmental conditions. There are some scopes for this research as stated as follow:

- Focusing on concept of green procurement and its relationship to the sustainable development and environmental impact assessment.
- Comparing the conditions and get the lesson from the implementation of green procurement concept in experienced country (Canada) and adjustment for its implementation or practices in Indonesia.
- Recommendations to adopt and implement of green procurement concept in Indonesia.

1.5. Research Methodology

1.5.1. Methodological Steps

The research will be conducted based on literature study. Most of analysis in this research is exploratory and qualitative analysis. According to Babbie (1992), exploratory study and its analysis are done for three purposes which are to satisfy the researcher's curiosity and desire for better understanding; to test the feasibility of undertaking a more careful study; and to develop the methods to be employed in a more careful study.

Related to analysis, there are two strategies of research that will be employed in this research which are theoretical review and analysis of green procurement implementation in experienced country (Canada) and Indonesia to get research outcome. This research is developed into several methodological steps as follows:

1) Reviewing and developing theoretical framework and empirical

This first step is about literature review to describe and build theoretical base related to the sustainability concepts, environmental impact assessment (EIA), general procurement procedure, and more focus on green procurement concepts and the pre-condition factors that is needed in developing green procurement. Literature review is useful for helping us as inputs for further analysis such as linking and relating relevant theories, and will strengthen our theoretical foundation. This review will focus on the journal articles, books, and other publications related to the green procurement concept and its implementation.

- 2) *Describing and analyzing data and information from Canada experiences in green procurement implementation and some challenges or constraints faced by Canada in its implementation*

This stage will explain how the experienced country (Canada) implements the green procurement. This explanation and analysis include the pre-condition factors in developing green procurement, the implementation of green procurement and what challenges/constraints that are faced by Canada during the implementation of green procurement. The relation of green procurement instrument and other environmental policy/regulations will be discussed to get lessons about integration of environmental aspect in frame of achieving sustainable goal in Canada. This part will help us to get description of theoretical framework with practical experiences.

- 3) *Describing of existing condition of Indonesian procurement and pre-condition factors toward green procurement implementation*

It will give some description of procurement in Indonesia that consist of policy/regulations, relation to the environmental issue, existing condition of procurement, and other aspects related to pre-condition factors toward the possibility of green procurement implementation. This description will also depict briefly how far the environmental aspect is implemented in procurement process in Indonesia.

- 4) *Analyzing the possibility of green procurement implementation in Indonesia*

Previous steps become inputs for analysis the possibility of the green procurement implementation in Indonesia. Some comparison about the pre-condition factors will be described to get a picture how the differences of Indonesia condition and Canada. What lessons can be learned from Canadian experiences regards to the pre-condition factors in developing of green procurement implementation. This contains the practical implementation and also the constraints faced in its development. This will be useful to get an insight for the possibility of green procurement implementation in Indonesia based on Canadian experiences. Referring to that, lessons from Canada can be taken to be adopted in Indonesian context. In this part also describes practical implementation of green procurement

- 5) *Concluding and formulating strategy recommendations for implementation of green procurement in Indonesia*

Finally, this research will try to get the critical conclusion to the possibility of green procurement implementation in Indonesia. This is focus on the pre-condition factors to develop green procurement implementation in Indonesia. Some recommendations related to the green procurement implementation in Indonesia will also be drawn in this step based on the analysis part and lessons from Canada experiences included the consideration in limitation and challenges that might be encountered.

1.5.2. Data Collection

Most of data required for this study will rely on secondary data or literature *study/review* because of some limitations in collecting primary data and time allocation to conduct the research. Some data needed in this research are related to the Canada and Indonesia so that it is difficult to collect data directly in those countries

because the researcher studies in the Netherlands. Other limitation is time allocation which is less than six month to finish this thesis.

The data for this study is used for building a theoretical framework and then is used for analysis part about green procurement. Main collection of data comprise of: definition of sustainable development, EIA, and green procurement; pre-condition factors for developing of green procurement; constraints and challenges in green procurement; green procurement implementation in Canada; and current Indonesian procurement condition. Source of data consists of previous research findings or comparative study/report, publications such as journal, text book, articles and other relevant sources from internet.

1.6. Structure of Research

The structure of this research will be elaborated in six chapters. The diagram of thesis framework describing the relation among chapters is illustrated in Figure 1. The content of each chapter can be described as follows:

Chapter 1 : Introduction

This chapter consists of background, research objectives, and research questions, scope of research, research methodology, and structure of research. It will depict the background of the study as the starting point in conducting research about green procurement implementation.

Chapter 2 : Theoretical Framework

This chapter provides theoretical concepts and empirical bases comprise of green procurement concept; the importance of green procurement; relation of sustainability, environmental impact assessment and green procurement; and the pre-condition factors considered in the development of green procurement. Finally, at the end of this chapter, the framework of analysis for this research will be described based on theoretical concepts.

Chapter 3 : Implementation of Green Procurement in Canada

This chapter describes the implementation of green procurement in Canada as one of advanced countries in conducting the green procurement. The focus of this part is on the way of Canada experiences in developing the green procurement based on pre-condition factors discussed in previous chapters. This chapter also explains about the approach and challenges/constraints faced by Canada in implementing of green procurement.

Chapter 4 : Current Procurement Condition in Indonesian

This chapter will describe policy/regulations related to the environmental aspect and current procurement implementation in Indonesia. This chapter will also depict the pre-condition factors that will support to the developing of green procurement. At the end of this part will explain about the challenges faced by Indonesia in procurement implementation.

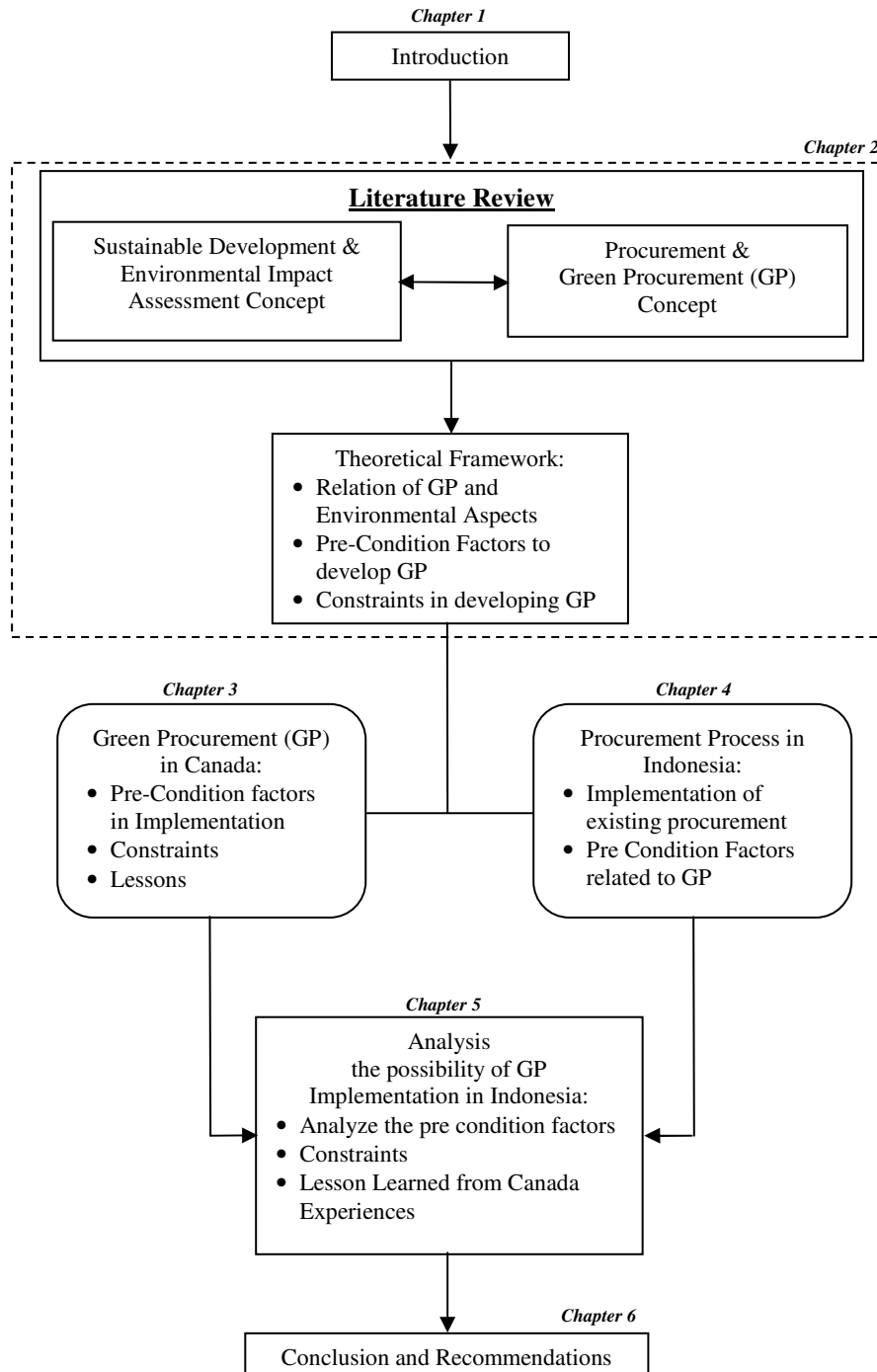
Chapter 5 : Towards Green Procurement Implementation in Indonesia

Analysis about the possibility of green procurement implementation in Indonesia becomes the focus of this chapter. Positive and weak points on the pre-condition factors to develop green procurement implementation and also comparison of it with Canada experiences will be analyzed to get answers on the possibility of its implementation. Experiences and also constraints faced by Canada are analyzed as a lesson for green procurement implementation in Indonesia.

Chapter 6 : Conclusion and Recommendations

The final chapter consists of conclusion and recommendations. This chapter will provide some recommendations for Indonesia in developing of green procurement. The recommendations are made as adjustment from Canada experiences and also consider Indonesian condition/context. The recommendations are taken by considering the analysis in chapter 5.

Figure 1 Thesis Framework



Chapter 2

Theoretical Framework

In this chapter, relevant theory for this research related to green procurement will be elaborated. Those theories are useful for building a theoretical framework which is important to construct the framework of thinking of this research. This part provides some theories related to topic of research and consists of green procurement concept as a part of environmental policy instrument; relation of sustainability, EIA and green procurement; and pre-condition factors and barriers in green procurement development. At the end, the framework for analysis is described to show the relation of theory and the analysis thinking to obtain strategy recommendations for the research questions/problems.

2.1. Green Procurement Concept

One way to achieve more environmentally development objectives is through the choosing of green/environmentally friendly goods/services and works in infrastructure development. It means that environmental consideration is incorporated in the decision making for provision goods/services and especially for works, such as infrastructure development. According to that, green procurement has important role for providing green products/services and works. The understanding of green procurement and all of related aspects will be described in this part.

2.1.1. Definition of Procurement and Green Procurement

Procurement, especially for public interest, is an important activity in purchasing goods/services and works for supporting the activity of institutions like government or company. According to the environmental issue, the activity of procurement tends to the initiative of how procurement helps to reduce environmental impacts (Johnstone and Erdlenbruch, 2003). Many countries through their policies and programs have been trying to apply those policies/programs for reducing environmental impacts and one of those policies or programs is through the procurement decision. Not only does government but also many companies increasingly use procurement as an environmental policy instrument to achieve environmental performance of products/services and works (Marron, 1997 in Faith-Ell 2005; OECD, 2002; Johnstone, 2003). The procurement considering environmental impacts in the process is mentioned in some terms as a *sustainable procurement or green procurement*.

There are some different definitions about green procurement. Russel (1998) and Maron (1997) mentioned and stressed that the green procurement is often described as “*the integration of environmental consideration into purchasing policies, programs, and actions*” (Russel, 1998; Marron, 1997 in Faith-Ell 2005). Faith-Ell (2005) describes that green procurement is a way to improve environmental performance of products and services by expressing environmental preferences. Green procurement also defines as “*a way to promote the development of green technologies*” (Commission of the European Communities, 2004). It means that green technologies have to be considered in the decision process to procure goods/services and works. Another green procurement definition emphasized to the green public

procurement that is done by public authorities such as government in all level. Brison (2006), Minister of PWGSC,³ defines that green procurement is the integration of environmental considerations alongside quality, performance, price and availability into the procurement process, from planning to final disposal.

According to green public procurement, Maron (1997) told that green/environmental public procurement is justified as a way to internalize the external costs (and some cases benefits) of goods purchased by governments and is justified as a way to promote the development of green technologies. Similar to former definition, European Commission (2004) notices that green public procurement means that contracting authorities take into account environmental elements when procuring goods, services, or works. In brief, although many different definitions on green (public) procurement, the same point in all definitions is to take into account environmental aspect/element in procuring goods, services, or works.

2.1.2. Existing Procurement and Green Procurement

In general, procurement stands for the activities of authorities, both public, semi public or private sector, to buy or provide goods, services or works with a view to fulfilling their activities (European Commission, 2004)⁴. General principles of procurement activities consist of such as efficient, effective, non-discrimination, transparency, objectivity, and accountability (UE Directive 18/2004/EC, 2004; World Bank, 2004, ADB, 2002). According to the procurement procedure, there are some different types of procurement which are open procedure (no selection), restriction procedure, procedure with negotiation (with or without announcement, with pre-qualification), and competitive dialogue (UE Directive 18/2004/EC, 2004; World Bank, 2004, ADB, 2002). The first three of those procedures is a common procedure conducted in many procurement activities and the fourth procedure is conducted for specific circumstances such as for exceptional case. The regulation of procurement procedure is important for ensuring open and free competition.

Green procurement procedure is not too different with existing procurement procedure. The focus on green procurement procedure is an effort to select 'greener' goods/services or works and the incorporation of environmental specifications in the (government) tenders and contracts. Green procurement does not seek to re-write the book on existing procurement process but merely to *add an environmental dimension* to the decision making process and also to the practices of procurement activities (Kunzlik, 2003). Brison (2006), Minister of PWGSC, said that green procurement, generally, adds environmental consideration as criteria – alongside quality, performance, price and availability – into the procurement process, from planning to final disposal. Contract award is given for the suppliers/contractors as bidders who offer the best combination of price, quality, and environmental criteria (PWGSC Canada, 2005). Regarding to green procurement, the criteria for selecting goods/services/works in former/conventional procurement process is still used but it is added by environmental consideration. All of criteria for selecting the suppliers/contractors have to be stated clearly in tender document as part of technical specification and also in contract award document.

Many tools/elements to choose environmentally friendly goods/services and works are used in green procurement process. Eco-labeling program is one of effective means to identify 'greener' goods in procurement options (Environment

³ PWGSC= Ministry of Public Work and Government Services Canada

⁴ European Commission: Green Public Procurement. <http://ec.europa.eu/environmental/gpp>

Canada, 1998; OECD, 2003). Other ways to support the greener procurement procedures are comprehensive approach to encourage industry/supplier to apply environmental design, environmental management system/strategy, and life cycle analysis. Environmental management system/strategy can be depicted as a tool to reduce environmental impacts from its management and operational activities and as a tool that enables government to include environmental criteria to achieve sustainable development. The procedures of life cycle assessment (LCA) are part of the ISO 14000 environmental management standards. Life cycle analysis is the assessment of environmental impacts for a given product or service throughout its lifespan. All those supporting ways will help to achieve greener procurement and, of course, the officer who involved in that process should understand about those tools and process.

Incorporation of 'environmental' concern in existing procurement regulation becomes critical issue to implement green procurement. Several stages in existing procurement procedure such as selection of potential suppliers/contractors, technical specifications of goods/services and works to be procured and contract award criteria are important to take into account the environmental concern. European Commission in its new directive specifically points at the possibilities of adopting environmental consideration in procurement process at the stages of technical specification selection, award criteria, and contract performance clauses (Faith-Ell, 2005).

Most of the selection criteria in existing procurement are the "*most economically advantageous*" tender which is more focus on lowest price criteria. According to environmental concern, former selection criteria will shift to "*the most advantageous*" that not only consider economic aspect (lowest price) but also have incorporated the environmental aspect to the process (Brison, 2005). In technical specification selection, the use of eco-labels and environmental performance standards (for example derived from an EIA study) are important rather than only use technical standards. Other important part in procurement process is incorporating of environmental performance indicators (put as contract clause) in contract award document which have to be conducted by the supplier/contractor who win the bidding. Performance of supplier/contractor will be monitored and evaluated from the implementation of contract until the delivery of the result. Those are the key point and key aspect to understand the extent to which the authority in procurement can incorporate environmental criteria in tendering/procurement process. In short, the existing procurement procedure and some part that incorporate environmental aspect is shown in Figure 2.1.

According to the previous explanation, green procurement, generally, is not too differ with the common/existing procurement. Green procurement does not change the existing procurement but add more environmental consideration/dimension to help in reducing environmental impacts caused by procuring goods/services and works. The standard purchasing criteria, of price, quality, and availability, remain paramount. The environmental impacts of goods/services and works procured can be seen as a part of the quality criterion (PWGSC, 2005; Bratasida, 2005). The procedure of both procurement are quite same, but in some aspects to assess the best goods/services/works are used the environmental requirement as consideration. Some tools are used to choose environmentally friendly goods/service and works such as life cycle analysis, environmental standard (ISO Standard), list of eco-label product, result of EIA Study etc, so that the goods/services and works procured have no or less negative impacts to environment.

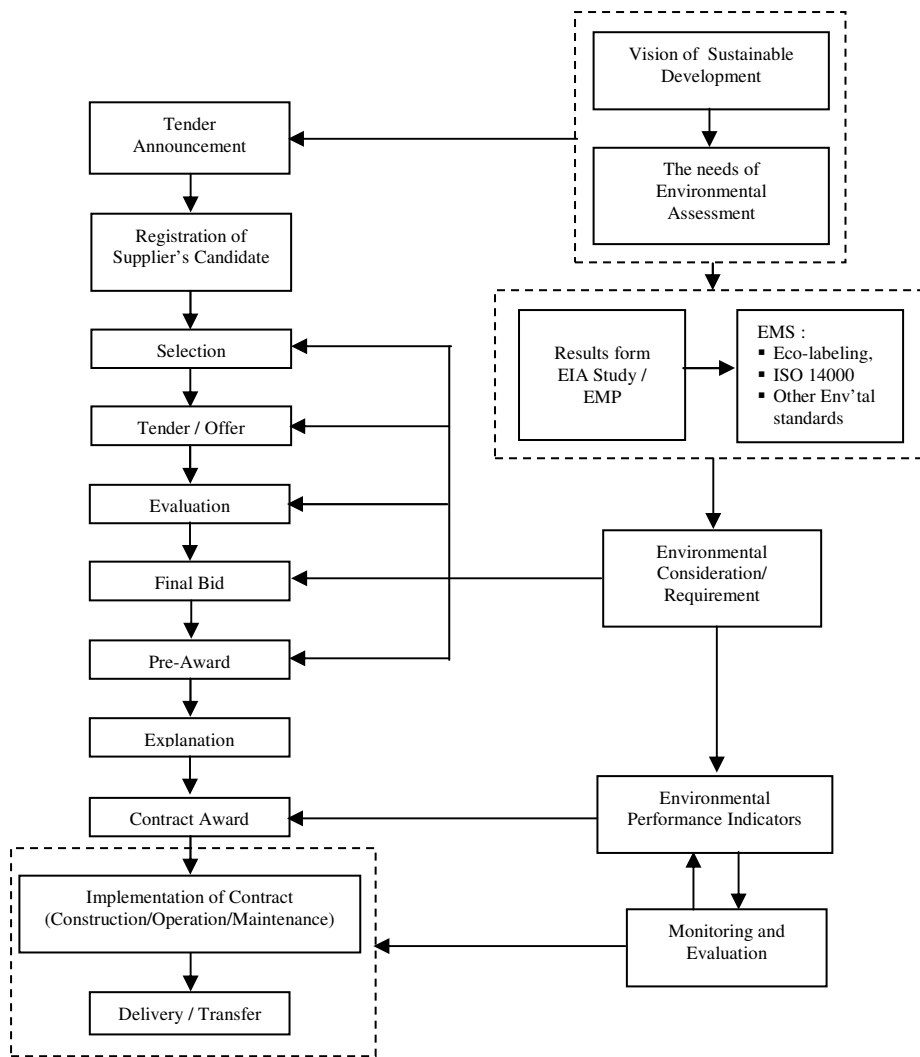


Figure 2.1 Procurement Procedure Considering Environmental Aspect
Source: Compiled and Interpreted by the Author

Other difference between existing procurement and green procurement are the criteria in selecting goods/services that the former is commonly based on the most economically advantageous or lowest price and the later, green procurement is based on the value of money criteria which means that the lowest upfront price will not automatically be preferred and all of life cycle cost analysis must be taken into consideration. In terms of value of money, it is included not only pricing consideration but also the environmental consideration for selecting goods/services and works. Briefly explanation of procurement is shown in Table 2.1.

Table 2.1
Comparison of Existing Procurement and Green Procurement

Aspect	Common (Existing) Procurement	Green Procurement
Definition	Process of purchasing goods/services/works with consideration on good governance aspects but not to or less focus on environmental criteria	Procurement that incorporated the environmental consideration besides the criteria have been stated in existing procurement.
Process	From announcement to Contract Awards and its implementation of Contract.	Not too differ with existing procurement, but the process integrates environmental consideration to minimize environmental impacts

Aspect	Common (Existing) Procurement	Green Procurement
Focus	More focus on good governance aspects	Besides on good governance aspects, consider environmental performance to support minimizing of environmental impacts
Criteria for selecting goods/services or works	The most common is “most economically advantageous” (lowest price) criteria and less on environmental consideration	The most advantageous criteria (Value for money criteria)→ not only price but also environmental quality through: <ul style="list-style-type: none"> ▪ Life Cycle Analysis of goods/services ▪ Environmental Standard (ISO) or Eco-label list ▪ Consider EIA results (EIS) included in procurement for project works

2.1.3. The Importance of Green Procurement

According to definition of green procurement, one of important thing is the reasons why the green procurement becomes important. It relates to the role of green procurement in some aspects especially to the environmental aspects. The importance of green procurement can be seen in its benefits or effects to environmental aspects.

Green procurement can result in many environmental, economic, and social benefits. One of the most benefits of implementing green procurement is *reducing the environmental impacts of public consumption and reduction cost along with environmental improvement* (Legault, 2000; Bratasida, 2005; Danish Environmental Protection Agency, 1993). That statement about the advantage of green procurement is supported by Faith-Ell (2003). She told that increasing of environmental awareness in the procurement can improve the environmental performance of product/services/works and thus reduce adverse impacts of their activities.

As mentioned in previous part, green procurement practice is an important environmental instrument to help in reducing environmental impacts and in improving environmental performance. From the report by Commission for Environmental Cooperation of North America (2002), green procurement practices can:

- Improve environmental performance of the public authorities themselves
- Reduce the consumption of materials, resources, and energy
- Stimulate business development and new product/services markets
- Stimulate “green” and innovative product development.

Regarding to the infrastructure development such as road development, green procurement may helps in providing materials, resources, energy, and also emerging of innovative technologies that has less environmental impacts like point 1 and 2 in previous explanation. This action is in line with prevention and mitigation actions, as two of the remedial measures (besides compensation) for reducing environmental negative impacts on infrastructure development. Those explanations refer to some measures to remedy/limit negative environmental impacts caused by infrastructure development which are prevention, mitigation, and compensation. Those measures are considered in EIA Study to analyze negative impacts on infrastructure development such as road infrastructure (Arts, 2004, p.257). For example, through green procurement, it can be procured the materials such as environmentally asphalt for limiting environmental impacts from road infrastructure development in certain area.

From that explanation and example, it is quite clear that green procurement may help to improve environmental performance in infrastructure (such as road) development.

All of definitions and explanations above stated that green procurement is an important instrument to help reducing environmental impacts. One real example to show the importance of green procurement is showed in the survey result done in Japan in 2003. The result of survey shows that the achievement of green procurement by government institutions remains high, and it showed that 45 thousand tons of CO₂ was reduced through green procurement in 2003. That result show how important the green procurement is. Even, the importance of green procurement especially for public procurement was explicitly stated in the World Summit on Environment in Rio de Janeiro, 1992 and in Johannesburg, 2002. From both of the summits, it was stated that procurement activities have to take into account environmental consideration in that process (UNCED, 2002).

Another importance of green procurement implementation is its influence to other parties to help in reducing of environmental impacts. Based on practices (PWGSC Canada, 2006), the green procurement policy or implementation is expected can:

- Demonstrate environmental leadership and influence industry and citizens to use environmentally preferable goods, services and processes;
- Stimulate innovation and market development of, and demand for, environmentally preferred goods and services, making these available and mainstream for other sectors of society; and
- Support emerging environmental technologies.

2.1.4. Green Procurement as an Environmental Policy Instrument

The importance of procurement as a part of environmental concern was officially mentioned in 1992 at the World Summit on Environment, Rio de Janeiro that is held by the United Nations Conference on Environment and Development (UNCED). There is one important message related to the relation of procurement and environment and the quote from that summit is “*Take environmental considerations in public procurement...*” This message was repeated and reinforced at the Johannesburg Summit in 2002. Rio de Janeiro Summit 1992 (in Principle 17 of Rio Declaration), also promoted EIA, as a national instrument, that shall be undertaken for proposed activities that are likely to have significant adverse impact on environment and are subject to a decision of a competent national authority (Arts, 2004 p. 235). Today governments all over the world are addressing that topic and working to make it happen.

Prior to the summit, the awareness of many countries to include the environmental aspect into procurement process is less. For many years, procurement done by public authorities did not really take into account of the environmental value of goods, services, and works (European Commission, 2004). The emergence of sustainable development concept that spread globally makes the needs to take environmental consideration into account in all other policies (alongside economic and social concerns) is important. If there is no integration of the environmental dimension into all policies areas, achieving sustainable development at all levels of governance cannot be established (European Commission, 2004).

Green procurement can be mentioned as one of policy instruments to improve or increase environmental performance of products/services or works (Marron, 2003, Commission of the European Communities, 2004 in Faith-Ell, 2005). The basic mechanism is to shift the demand and supply towards more environmentally friendly

products/services. Referring to the summit, many western countries, especially in Europe and North America has adopted and implemented the green procurement as a form of environmental policy. That condition is a form as a contribution of many countries in their policy to achieve global commitment in sustainable development which is stated in World Summit in Rio (1992) and Johannesburg (2002). On the other side, many developing countries are not implemented yet the green procurement and tends to left behind in its implementation than developed countries (OECD, 2003; Marron, 2003).

According to green procurement as an environmental policy, the term environmental requirement is inherent with the green procurement concept. Environmental requirement is an instrument in green procurement to achieve better environmental performances. Environmental requirement is included in the technical specifications document of tenders and of course, the most important thing is clearly stated in the document of contract as a legal agreement to conduct the works (Kunzlik, 2003). According to environmental requirement in green procurement, there are four ways identified that environmental requirement can be successfully effective (Oosterhuis, et al, 1996 in Faith Ell, 2005):

- *Directly*, by demanding products and services with a lower environmental impact
- *Indirectly*, by putting pressure on producers to develop products and services with a lower environmental impact
- *Indirectly*, by improving the market position of environmentally preferable products and services
- *Indirectly*, by setting an example for other consumers.

2.2. Sustainability Concept, EIA, and Green Procurement

The concept of sustainable development, nowadays, become an important issue and has taken a central place in policy/decision making in every aspect of development in every country (Arts, 2003 p.264). The Bruntland Commission in 1987 described the term sustainable development as *the development that meets the needs of the present without compromising the ability of future generation to meet their own needs* (WECD, 1987 in Pope, J et al, 2004). Derived from that definition, Pope et al (2004) said that sustainability development consists of three pillars or triple bottom lines (TBL) which are environmental, social, and economy aspects which each of them are closely related. He also explained that the TBL can be considered as an interpretation of sustainability that places *equal importance* on environmental, social and economic considerations in decision-making and avoid trade-off among them.

One of important aspect from three pillars of sustainability development is environment. Related to that, Gibson (2001) stressed that the sustainability should consider environmental impacts on the development and those impacts need to be assessed. Gibson (2001) also told that, "*Environmental assessment processes are among the most promising venues for application of sustainability criteria.*" According to the objective of sustainable development, *the assessment of environmental impacts* has very important influence to the development planning such as for infrastructure development. In short, sustainability concept has relationship to the environmental impact assessment for achieving the goal of sustainability itself in environmental field.

The need of instrument for assessing environmental impacts is important. Over the last decade, Environmental Impact Assessment (EIA) is viewed as one of important and most popular tool in environmental impact assessment. Briefly, EIA can be understood as a systematic process of identifying, predicting, assessing and

evaluating of impacts from proposed activities such as policies, programs, plan, and development project which may affect the environment (Bisset, 1983; Sadler 1996; Clark, 1984 in Arts 1998). EIA can be viewed as a rather successful planning tool and this instrument is widely used not only by many countries but also international lending and development agencies such as World Bank (Sadler 2004, in Arts, 2004).

Other important aspect related to the EIA is the role of EIA in helping the decision maker to get better decision about environmental planning. In this term, EIA become a tool for structuring the process of planning not only in the development and design stages but also in the implementation and management stages (Arts, 1998). EIA is used in project scale to anticipate the environmental impacts. Because of some limitation in EIA and demands to assess impacts not only in project scale but also in higher level (policy, plan, and program), the development of Strategic Environmental Assessment (SEA) is emerge and become an important planning tool in addition to EIA (Sadler 2004 in Arts, 2004; Glasson et al, 1994). Both EIA and SEA is needed and complementary one to each other, EIA in project level and SEA in higher level (policy, plan, and program). Pope et al (2004) belief that environmental assessment processes such as EIA (and also SEA) can, and do, make valuable contributions towards sustainability. Through minimizing the environmental impact on development, it is expected to encourage sustainable development.

Besides the EIA as the assessment instrument in project level, there is a green procurement as a tool in project level which takes into account environmental aspects for providing goods/services/ and works related to the certain project/activities on development (Russel, 1998; Maron, 1997 in Faith-Ell, 2005). Relationship of environment and procurement is stated in World Summit on Sustainable Development in the Rio de Janeiro (1992). Basic thought of green procurement is minimizing an environmental impacts caused by provision of goods/services and works. Regarding to this, Brison (2005), Minister of PWGSC, said that procurement become one of important environmental policy instruments that influences in minimizing environmental impacts and it is accordance with the goal on EIA. Both EIA and Green Procurement are in project level to help in achieving of sustainable development and higher instrument level above them is sustainable development policy and SEA. Relationship among them is shown in figure 2.2 in frame of planning process.

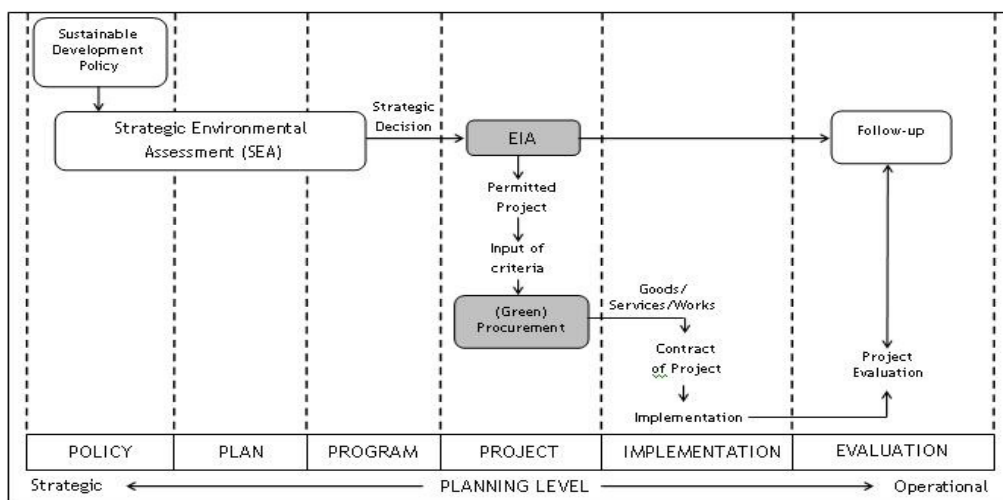


Figure 2.2 Position and Relationships of Sustainability, SEA/EIA, and Green Procurement in Planning Process

EIA and Green Procurement Relationship

This part will explain about the relation of EIA as an instrument in assessing environmental impact or certain activities before it is implemented, and green procurement, as an instrument to help in minimizing environmental impacts through procuring green goods/services or works (such as infrastructure works). Both of them are laid on project level in the planning process of certain activity. In this research, relationship of EIA and green procurement will be explained in infrastructure development project such as road development to make explanation easier.

Prior to conducting initiation/proposed project, generally, environmental impacts of that project have to be assessed. EIA in this process holds important role through its procedure. Common elements in EIA procedure consist of (Arts, 2004 p.236):

- *Screening*: determine the need for an EIA.
- *Scoping*: determination of information needed, relevant issues, level of detail. The range of assessment study must be determined such as the possibilities of alternatives, relevant information, the level of details, the methods are used, etc
- *EIA Study*: the actual investigation consists of collecting information, structuring information, analyzing, and evaluating. This study covers the impacts of activity, alternatives for activity and their impacts, remedial measures (prevention, mitigation, or mitigation), evaluation (ex ante). The result of this EIA Study is reported in the Environmental Impact Summary (EIS), in some countries is called as Environmental Management/Monitoring Plans (EMPs), like in Indonesia (Purnama, 2003 p.413-439)
- *Reporting of EIS*: report of EIS (result of EIA Study including non-technical summary)
- *Reviewing of EIS*: EIS is reviewed with respect to its quality.
- *Decision*: decision-making on proposal by authority based on Reviewed EIS report to determine whether the activity can be continued or not.
- *Follow-up*: monitoring, (ex post) evaluation to evaluate the implementation of activity by comparing it with the impact predicted in the EIS.

The basic element of EIA stage is shown in Figure 2.3.

A decision after EIA procedure conducted is determine whether the activity can be continued or not. If that activity is approved to be continued, the next process is tender for that activity and this process is named as procurement. Basically, procurement process is considering same aspects consist of quality, prices, and availability in procuring goods/services or works (ADB, 2002; Johnstone, 2003; Bratasida, 2005). As explained in previous part, green procurement takes into account the environmental criteria in its process and those criteria are part of quality aspects.

Relationship of EIA and Green Procurement can be seen in their objective in environmental concern. Objective of green procurement is to procure goods/services/works that will give less or minimum environmental impacts in its implementation. This objective is quite same with the objective of EIA to minimize environmental impacts from certain activity (Erikson, 1994; Marriot, 1997, in Maharini, 2006). Interconnection EIA and green procurement can be seen in the needs of environmental requirements in the procurement process. Because green procurement needs environmental criteria for selection, EIA can help those needs through the results of EIA process which is stated in EIS/EMP part. The EIS which covers the potential impacts, alternatives and their impacts, remedial measures, etc can be perceived as the link/interconnection to the green procurement. Results/content

stated in EIS document can become environmental criteria inputs for green procurement process. The inputs will be stated as technical specification together with other criteria (price, availability, etc) in the tender document for selection and contract document for certain projects. For notes, the environmental criteria resulted by EIA process in green procurement is only for the projects that needs EIA. Besides that, green procurement for other goods/services which is not needs EIA can use some environmental standard such as eco labeling, ISO 14000, and also life cycle analysis. The relationship of EIA and green procurement is shown in Figure 2.3.

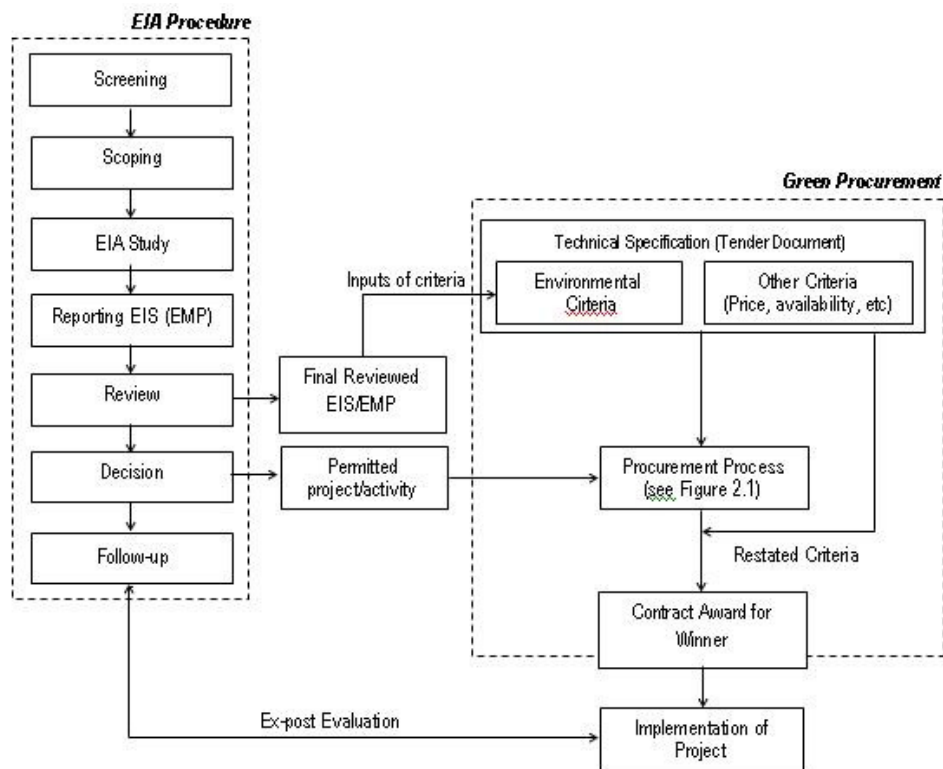


Figure 2.3 Relationship of EIA Procedure and Green Procurement

2.3. Development of Green Procurement: Pre-Condition Factors and Barriers

As mention in the previous part, in the context of sustainable development project, green procurement cited as potentially an effective policy to enhance sustainable development. According to a study done by Johnstone (2003) and Marron (2003) related to the OECD countries, there are some lessons correlated with the implementation of green procurement. *First*, green procurement implementation has direct effect to the performance of government which is believed more concern to environmental issue and indirect effect to the economy. This lesson is more related to the government choice to choose green policy. *Second*, green procurement ensure coherence with other environmental policy instruments such as eco-labeling system, environmental impact standards for goods/services or works. It helps other environmental policy to achieve its efficiency and effectiveness. *Third*, green procurement ensure coherence with budget systems and accounting procedures. This means that procurement practices should be in line with the system of funding and also have to fulfill standard of accounting procedures because the procurement practice still correlate with the amount of money and its accountability. Green

procurement program, especially for public, must be understood in the context of the general public expenditure management. It will help government in implementation of public expenditure carefully.

Although green procurement is viewed positively to help sustainable development in a whole, there are some pre-supporting condition elements which are needed in its implementation. Those elements should be considered for the success of its implementation. Some of *pre-supporting condition elements* in implementing green procurement are (Legault, 2000; Johnstone, 2002, Bratasida, et al, 2002):

1. *Political will* of government to address the environmental issues
Green procurement will be succeed if the government able to state their policy in line with the environmental issue such as sustainable development. The will from government is expected to generate other organizations/institutions/private sectors to accommodate the environmental policy in their activities.
2. *Regulations* supporting the green procurement
Legal mandate through some regulations that is supporting the implementation of green procurement will be useful and strengthen of it. All parties have reference to their activities regards to green procurement if there are clear and adequate regulations about environmentally procurement. Availability of simple and clear guidance on green procurement may help to the green procurement implementation.
3. *Institutional capacity* to implement green procurement
Awareness of organizations to implement green procurement is important to achieve sustainable development. There is still less awareness of organizations both public/government institutions and private sectors such as industry to implement green procurement to support their activities, especially in developing country because of some misconception to the green procurement. Not only awareness in implementing green procurement but also building of institutional capacity included the ability of government organization. This is crucial for the success of green procurement through its realization in decision making related to green procurement implementation.
4. *Human resources capacity*
According to the human resources, it is true that capable human resources in the process of green procurement is important and is needed in line with the vision of environmental issue. Capability of human resources especially in government institution to achieve good green procurement is important. The needs of environmental concern in procurement should be understood by employee in all level related to the green procurement practices. Also, the understanding to important tools in green procurement to select green products/services or works is important. This improved capacity of human resources will support to the better decision on the process of procurement in helping the efforts in minimizing environmental impacts. So it needs change the view of employee/human resources from only thinking of efficiency or effectiveness in procurement to think also on environmental impacts emerged from procurement activities.
5. *Involvement of other actors*
The success of implementation of green procurement is also influenced by other actors beyond government institution or employee. Support form industries/suppliers/contractors that produce/supply goods/services or works that environmentally friendly will be able to contribute to the smoothness of green procurement. Role of suppliers/contractors in green procurement not only active in participating but also comply with the contract awards stated to implement

environmental requirements during implementation of works or purchasing goods/services. Besides that, public supervision (outside government institution) which is conducted by NGO or citizen to procurement activities may help government to conduct better procurement process not only in good governance aspect (efficiency, transparency, etc) but also in considering environmental impacts in all government activities (providing goods/services and works such as infrastructure works).

6. *Process Implementation*

This part tends to the practical level where the process of green procurement is conducted. In this aspect, policy on green procurement has been elaborated in detail aspect for the process and the needs of guidance on the practical level are important.

Green procurement implementation is not easy to develop, especially for the country that has not good experience in environmental development. Not only in technical but also in capacity building of management or institutional that will support the green procurement implementation. Those explanations are supported by Siemens (2003) who evaluate the implementation of green public procurement programs and policies in certain sector in some countries. She evaluated that some barriers emerged in implementation of green (public) procurement. There are three chief barriers according to that implementation, which are (Siemens, 2003 p.54):

1. *Management and organizational barriers*

Green (public) procurement seen as one element of environmental management systems and is typically implemented by the administrative arm of a department that rarely interact with the policy arms. It means that sometimes green procurement is viewed only as an instrument or administrative work and it is not viewed as an important part of policy to achieve better decision making. Green procurement is often not perceived as a significant environmental policy instrument and tends to be low on the list of environmental policy priorities. Even green procurement is still viewed only as a voluntary instrument to be done. In practices, some bad coordination among institutions involved in are examples of organizational and management barriers.

2. *Budget and financial barriers*

Lack of resources to pay premium for greener alternative often impedes the procurement of environmentally-preferable goods/services and works. For example, custom practice of procuring goods/services and works is on the basis of “the lowest price” and because of this basis, greener products/services and works can often frequently be excluded early in the decision making process.

3. *Information barriers*

General lack of environmental targets and indicators for green procurement programs and policies points to the underlining difficulties of green procurement goal setting, measurement and reporting. Often, the data/report of how far green procurement activities might help in reducing environmental impact is unavailable to support the continuity of this action. These data/reports are important to evaluate the green procurement implementation.

Bouwer, et.al (2006) in their paper about green procurement implementation in Europe also stated some barriers that inhibit to the success of green procurement implementation and their opinion is not too different with Siemens. They mentioned

at least five barriers on it such as *lack of environmental knowledge, lack of managerial and political support, lack of tool and information, lack of training for the involved staff, and misinterpretation that green product is always more expensive*. All of the barriers will be faced in implementing green procurement and it might be happens in difference scale depends on the condition in each country.

Besides the pre-condition factors to develop green procurement and the barriers/constraints that faced in its development, there are some important key factors to support the development of green procurement. Based on practical experiences, some noted for key factors are useful for effectiveness of green procurement implementation. In implementation of environmental requirements in procurement to achieve environmental effectiveness, there are some important key factors which are compiled by Faith-Ell (2005), such as:

- A committed management as important things for a successful introduction of environmental consideration into procurement
- Training of managers as a vital way for an efficient implementation of environmental purchasing/procurement
- A well functioning organization with a broad competence for achieving good results in the process of integrating environmental considerations in procurements
- A clear green procurement policy that is understood by all stakeholders both public and private sectors
- Evaluation of environmental requirements that needs to identify environmental improvements and performances.

2.4. Concluding Remarks: Framework of Analysis

According to the explanation of definitions and some theories in this chapter, some points will be discussed and reviewed in the next chapters regard to green procurement experiences and analysis of it to be implemented in Indonesia. The third chapter will elaborate the green procurement implementation in Canada as experienced country and then, fourth chapter will describe the Indonesian condition of current procurement implementation and the condition that is related toward the possibility of green procurement implementation in Indonesia. The fifth chapter more elaborates the analysis of green procurement implementation considering the Canadian experiences and current condition in Indonesia.

Some key points/elements that will be discussed and elaborated for each country and also in part of analysis are pre-condition factors such as political will/regulations, institutional capacity, human resources, involvement of other actors, and process implementation. Those factors will be compared and the lessons from Canadian experiences become some inputs for possibility of green procurement implementation in Indonesia. That part will become a focus of analysis that will be elaborated and discussed in Chapter 5. Furthermore, this research will also be completed by conclusion and strategy recommendations for the possibility of green procurement implementation. Framework of analysis is shown in Figure 2.4.

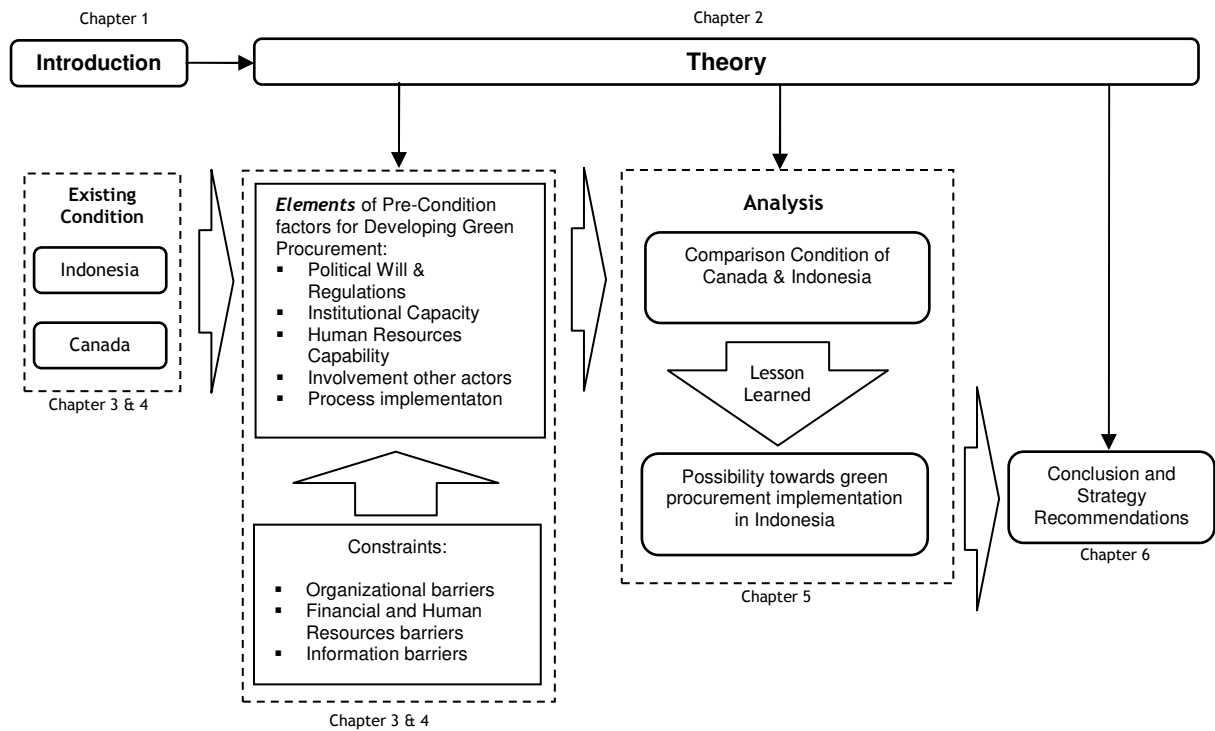


Figure 2.4
Framework of Analysis towards Indonesian Green Procurement

Chapter 3

Implementation of Green Procurement in Canada

The importance of green procurement to support the sustainable development is crucial. Experiences from some countries regard to the green procurement implementation can be learned to be adjusted prior to be implemented in other countries. There are some factors in experienced country influencing the green procurement implementation and those are important to other countries that are not implementing yet green procurement such as Indonesia. This part will describe the experience of green procurement implementation in Canada. Canada is chosen because this country is viewed as one of some leaders and established countries in green procurement implementation (Aitkens, 2005; Commission for Environmental Cooperation of North America, 2003).

3.1. Sustainable Development Concept and Green Government in Canada

The umbrella regulation in Canada for every environmental issue is the Environmental Act which is called as *Canadian Environmental Protection Act* (CEPA). The newest environmental act is CEPA which is issued in 1999. CEPA is the primary element of the legislative framework for protecting the Canadian environment and human health. A key aspect of CEPA 1999 is the prevention and management of risks from environmental damages caused by human and non human factors. In brief, CEPA is a form of Canada to get better living condition to support the sustainability in all aspects. Government of Canada believes that sustainable development is not only a desirable but an essential goal of public policy. Approaches of Government of Canada's Policy related to the sustainable development are (Government of Canada, 1995 in Legault, 2000):

- **Comprehensive:** Sustainable development is not the mandate of any single government department but for all departments must become sustainable development departments
- **Integrated:** Linked among the economic, environmental and social strengths and government policy cannot focus on one component without regard to its impact on the others.
- **Open:** Sustainable development is a responsibility shared between governments and with aboriginal people, the private sector, voluntary and community-based organizations, and individual Canadians.
- **Accountable:** all stakeholders must each define what we are going to do towards sustainable development -- and we should be prepared to be held accountable for doing our part and measure their actions.
- **Continuous Improvement:** A step-by-step approach based on continuous, incremental improvement is required to make measurable progress towards sustainable development.

According to that, Government of Canada has implemented the sustainability concept through the *concept of green government* (Government of Canada, 1995 in Legault, 2000). In 1995, Government of Canada issued *A Guide to Green Government* that was designed as a framework to guide and assist federal department in the preparation of their sustainable development strategies. That guide helps departments to identify their sustainable development objectives and develop action plans to

achieve them. The guide has aim to integrate the sustainable development into workings of the federal government. By taking that approach to that sustainable development, the government recognizes that responsibility for sustainable development is shared across government. The way taken by Government of Canada is in line with the concept of sustainable development as a global issue.

Related to the sustainable development practices, many departments in Federal Government of Canada have taken steps towards examining methods by which they can reduce the environmental impacts of the goods and services they acquire. In 1990, the Government of Canada directed all departments to address environmental implications of their policies and programs (Government of Canada, 2000 in Legault, 2000). The proclamation of Canadian Environmental Assessment Act (1995), similar with EIA Act, stressed that potential environmental impacts must be identified early in project planning process. In *A Guide to Green Government of Canada* (Government of Canada, 1995), it is said that the integration of sustainable development into policy, plan, and decision-making is a challenge and there are some techniques to assist in understanding and integrating social, economic, environmental considerations. Some of the most important are full cost accounting, ecosystem management, and environmental assessment. Environmental assessment regards to the how to ensure that negative environmental impacts included social and economy impacts are avoided (PWGSC, 2006). Related to that, green procurement as one of environmental instruments may helps in reducing of environmental impact through the process of selection of green products/services or works.

A Guide to Green Government outlines the federal government's commitment to integrate sustainable development into the way government defines its operations and makes decisions. That guidance is supported by other policy which is called as the *Direction on Greening Government Operations Policy* that directs department to implement environmental management system (EMS) and identifies greener procurement as a key environmental issue to be addressed in each department (Legault, 2000). *A Guide to Green Government* stated that government expenditure through procurement should consider some aspects and one of those aspects is considering environmental implication. Based on commitment outlined in *A Guide to Green Government*, green procurement becomes one of environmental policy instruments to help in achieving of green government in Canada. The next part describes the green procurement in Canada

3.2. Green Procurement in Canada

Implementation of green procurement policy is not similar in each region or country. Each of them has its own characteristics to implement the same policy in their real world. Green procurement is related to the inclusion of environmental policy in the procurement process and practices (Kunzlik, 2003). For implementing environmental policy in procurement, some countries adopt quite different policy orientation. Canada as one of the country in North America that has implemented green procurement can be called as an established country in implementing green procurement (Commission for Environmental Cooperation of North America, 2003). Aitken (2005, p.2-3) also support the statement that Canada, besides some European Union countries, is a world leader in the development of green/sustainable procurement. Todd (2001) in his paper said that Canada is regarded by the OECD as a model nation among industrialized countries in developing green public procurement practices.

Public procurement activities in Canada hold significant impact because it is related to the huge amount of money and directly or indirectly give impacts to the environment. Procurement has correlation to the achieving of sustainable development which is issued by Government of Canada. For example, the federal government is the single largest public sector purchaser in Canada with annual spending of over \$13 billion on products and services (Price Waterhouse, 1996 in Legault, 2000). Government procurement practices have an impact on the national economy and in the goods and services made available in the market place. Government operations included procurement activities have a considerable impact on Canada's sustainable development prospects and the environmental performance of federal government buildings, facilities and operations is subject to increasing scrutiny. Related to Canada's Policy on sustainable development, the procurement activities are directed to encourage the purchase of environmentally-sensitive products/services and works in infrastructure development to make good economic and environmental sense (Government of Canada, 1995).

Brison (2005), Minister of PWGSC, said that green procurement practices in Canada have made savings \$2.5 billion over five years in procuring goods/services and works. This condition will help green product and technology become more viable and competitive. Those facts proved the commitment of Government of Canada to implement green procurement and try to become the greenest government in the World. This implementation is supported by financial commitment from government and the government will ensure procurement decisions incorporate environmental performance considerations and will monitor and report annually on green procurement performance (Brison, 2005).

In the previous part, it has been explained that, in Canada, *greener procurement is a part of many departments' sustainable development strategies*. All departments have to take that step to help in reducing environmental impacts of the goods/services and works. Related to that step, government of Canada provides guidance on the specific issue of greener government procurement. This guidance called as *Material Management Policy* where the Government of Canada has included environmental requirements in its policy and practices (Government of Canada, 2005). This policy requires managers to include environmental considerations in all aspects of managing material from the planning phase through acquisition, use, and disposal of material. The principle including in that policy is the concept of four R's (Reduce, Reuse, Recycle, and Recover). The Material Management Policy is important and has tight relationship with the presence of procurement targets, monitoring, and reporting requirements (Treasury Board Manual, 1995 in Legault, 2000).

3.2.1. Building Green (Public) Procurement in Canada

In building green procurement application in government activities, there are some challenges that have to be faced by government. One of *the main problems is decentralized process* which means the increasing of employees/institutions that have authority to make procurement activities. It is related to the control and coordination (Legault, 2000). Another challenge is limited time and financial resources to increase green government procurement. These challenges often make misconception that environmentally preferable product/services or works cost more and perform less well than their alternatives. The choice of environmentally friendly goods/services or works sometimes is associated with high price but if they looked from environmental side/life cycle, they will give more benefits. Other challenge, especially in the

beginning, is defining the greener goods/services or works. Legault (2000) noted that the implementation of green procurement especially at the starting phase face problem such as misinterpretations of green procurement introduction. This misinterpretation can be a constraint to run the green procurement if it is not communicating well to all involved parties included public. Todd (2001) also supported this condition that in the beginning (introduction) phase, Government of Canada failed to introduce and publish their green procurement program to the public.

Regarding to the evolving of green goods/services or works, Government of Canada have some efforts such as the use of national eco-labeling programs, the *incorporations of environmental specifications* in government tenders, and lifecycle analysis (Legault, 2000). Specific program is being done by Government, especially Environment Canada (similar to a Ministry of Environment) through the Canada's Environmental Choice Program (ECP). This program is related to the greener procurement strategies in which the goods/services and works procured has lower impacts to environment.

Environment Canada established the ECP in 1988 to guide of making environmentally sound purchasing decision and to encourage the commercial development less harmful products. In ECP guidelines, supplier production processes are considered for goods/services and recognizes companies that are ISO 14004 certified. ECP has guidelines for green products and services and involved the companies to produce products certified by the ECP. Government of Canada thought that ECP through certification and eco-labeling programs is an effective means to identify greener procurement options but it is not enough. Government of Canada through Environment Canada are broadening the definition of what constitutes a greener product and are starting to include notions such as production process. For greener product achievement, Government reinforces the industry/suppliers/companies effort to apply more comprehensive approach through environmental design, environmental management system, and life-cycle analysis (Legault, 2000).

Government of Canada, through Treasury Board Ministry, tries to strengthen green procurement via the newest *policy on green procurement* as a Government's commitment (PWGSC, 2006; Environment Canada, 2006). The Policy on Green Procurement is designed to advance the protection of the environment and support sustainable development by integrating environmental performance consideration into *the procurement decision-making process*. Kenny (2006), Acting Director General of OGGO⁵ Canada, said that green procurement policy represents a fundamental shift in procurement decision in Canada which moved from very transactional choice to a completely new model that reflects a strategic procurement with much more emphasized on environmental performance. Some points of that policy are: contribute to environmental objective; result in more environmentally responsible planning, acquisition, use, and disposal practice in the government; stimulate innovation and market development of environmentally preferred goods and services; and support emerging environmental technologies.

Regarding to the establishment of newest green procurement policy, Brison (2005), Minister of PWGSC, said that one reason of Government of Canada issued the newest policy on green procurement is to show that government has commitment to procure goods/services or works that are less harmful to the environment and

⁵ OGGO= Office of Greening Government Operation which has role in implementing the Green Government Policy in Canada. This is a part of Department of Public Works and Government Services Canada (PWGSC)

human health. Other reason in issuing of this newest green procurement policy is to follow the recommendation suggested by Auditor General of Canada as the Commissioner of the Environment and Sustainable Development. This commissioner thinks the newest policy on green procurement is needed to improve green procurement implementation better than before. They assess that some green procurement activities is not good enough to support the greening government objectives in achieving sustainable development.

3.2.2. The Actors/Institutions on Green Public Procurement in Canada

From the public (government) procurement activities in Canada, there are some institutions/actors involved in the process. The main actor of (green) procurement process in Canada is Federal Government as the authority to make many regulations related to procurement. Through some government institutions, federal government control and supervise the procurement process in every departments/institutions. Some of federal government's bodies/institutions involved as main actors in green public procurement of Canada (Government of Canada, 2006) are:

- *Public Works and Government Services Canada (PWGSC)*, as leading actor in procurement activities, will provide guidance, tools, commodity management planning, as well as develop green procurement measures, such as performance indicator to clean and healthy environment, to be reported in Departmental Performance Reports (DPR), an annually performance report of each government institution to Treasury Board of Canada. The guidelines of DPR are issued by Treasury Board of Canada Secretariat. PWGSC will also participate in on going monitoring and short-term evaluation of the policy's implementation as well as in the review of the policy to be carried out in five years from its effective date.
- *Treasury board/Ministry of Finance*: Control of government expenditure on procurement of goods/services or works and also issue the guidelines to department/government institutions on how to report green procurement measures in their annual DPR.
- *Natural Resources Canada*: support PWGSC, in consultation with Environment Canada, by participating in the commodity management process which includes scientific, technical, and environmental policy expertise; advice on environmental aspects and impacts, setting environmental measurement and information on performance data and availability of environmentally goods/services and works.
- *Environment Canada*: Making of environmental policy, guidelines, and criteria and Canada's Environmental Choice Program (ECP) as environmental strategy. Together with Natural Resources Canada, support PWGSC in commodity management process.
- *Industry Canada*: will help in examining opportunities to use procurement as a tool to advance innovative environmental technologies and solutions.
- Every departments/government institutions: actor to carry out procurement activities for their own needs.

Besides the main government institutions above, there are some cross-sectoral institutions that help in green procurement activities which are:

- *The Treasury Board Advisory Committee on Contracts*: This committee formed a working group on Procurement Strategy for Sustainable Development. This working group deals with the horizontal issues across the federal government and

explores ways to advance the cause of sustainable development through sustainable procurement

- *Inter-departmental committee on Performance Measurement for Sustainable Government Operation*: This committee looked at how to establish, define, and promote the use of common measurement as they relate to sustainable government operation (Environment Canada, 2000).

To ensure the green procurement implementation is on the right track as a part of environmental and sustainable development policy, there is a *Commissioner of the Environment and Sustainable Development (CESD)*. This institution is part of Office of Audit General of the Canada that has role to audit the implementation of strategy related to the sustainable development goals and one of this activities is audit green procurement implementation. This commissioner has mandate to audit that activities and report the result to the Parliament and also as his responsibility to Canadians people (Office of the Auditor General of Canada, 2005). Government of Canada tries to implement the public transparency on green procurement implementation.

Outside those institutions, role of other actors is very important such as suppliers/industry/contractors, citizen and also non government organizations (NGOs). Suppliers that produce environmentally goods/services are important because they will support to the success of green procurement done by government. Most of industry are encouraging to fulfill the environmental standard (such as eco-logo or ISO certification) in order to reduce the environmental negative impacts. Over 230 industries/companies in Canada are licensed to use the eco-logo or being certified by ECP programs (Environment Canada 2000, in Legault, 2000).

Other important actor is citizen of Canada and also NGOs that aware to the government activities that should consider the environmental aspect. Those actors will help in controlling or supervising every step of government activities to achieve reducing of environmental impacts. Citizen and also NGOs, as public parties, do not directly involve but tend to ensure that public procurement process conducted by government is open to public about that process. So that public can control how far public procurements are in line with the policy of greening government which considers environmental aspects on their activities. This control can be inputs for considering better decision making on procurement conducted by government of Canada.

3.2.3. Approach to Greener Procurement in Canada

Pre-condition to achieve the greener procurement in Canada is the establishment of *sustainable development strategy*. This strategy is issued firstly in April 1997 and supported by Parliament to help Government of Canada's commitment to the environment and sustainable development. The strategy is an important step to comprehensively assessment of the economic, environmental, and social impacts as the three pillars of sustainable development. The newest strategy is reviewed in 2000 and known as the second strategy of sustainable development. The form of this strategy is an Environmental Management System (EMS) that represents the operational component of that strategy.

An Environmental Management System (EMS) is a framework developed by an organization especially government institutions to help in improving its environmental performance by taking environmental considerations into account when making decisions and managing risks. The development and implementation of EMS also helps to ensure departments and agencies meet legislation and policy

objectives, and demonstrate due diligence (Government of Canada, 2006). All of that are elaborated in parameter/criteria of environmental benchmarking for certain activities/works. The EMS will enable the Government of Canada to strategically manage all of environmental risks and opportunities including the greener procurement.

Besides the sustainable development strategy, Government of Canada through Environment Canada/EC (Ministry of Environment of Canada) issued EC Green Procurement Policy in 1994 (updated in 1999) as an approach to increase the quantity of greener goods/services or works. This policy was an important step towards the goal of greener procurement. The policy provides a direction to guide employee purchasing decisions and this policy directs the employee of government institutions (Environment Canada, 2000):

- to consider the impact of goods and services,
- to use Eco-Logo certified products wherever feasible,
- to adopt greener criteria in purchasing decision, and
- to include environmental terms and conditions within the selection criteria of government institutions' contracts. Effective contract ensures that contractors/suppliers fulfill its performance and delivery obligation including the environmental benefits during the implementation. Contractors/Suppliers will be monitored in their environmental performance, beyond other obligatory performances, by some indicators which are stated in the contract document.

The detailed step as the implementation of green procurement policy is the *department's operational environment policy*, firstly approved in 1997, that identifies greener procurement as a key component strategy, for example is Environment Canada's environmental strategy (Environment Canada 1997 in Legault, 2000). Focus of department operational policy is the finding of a department-wide initial environmental review which identified greener procurement as a priority aspect for the department.

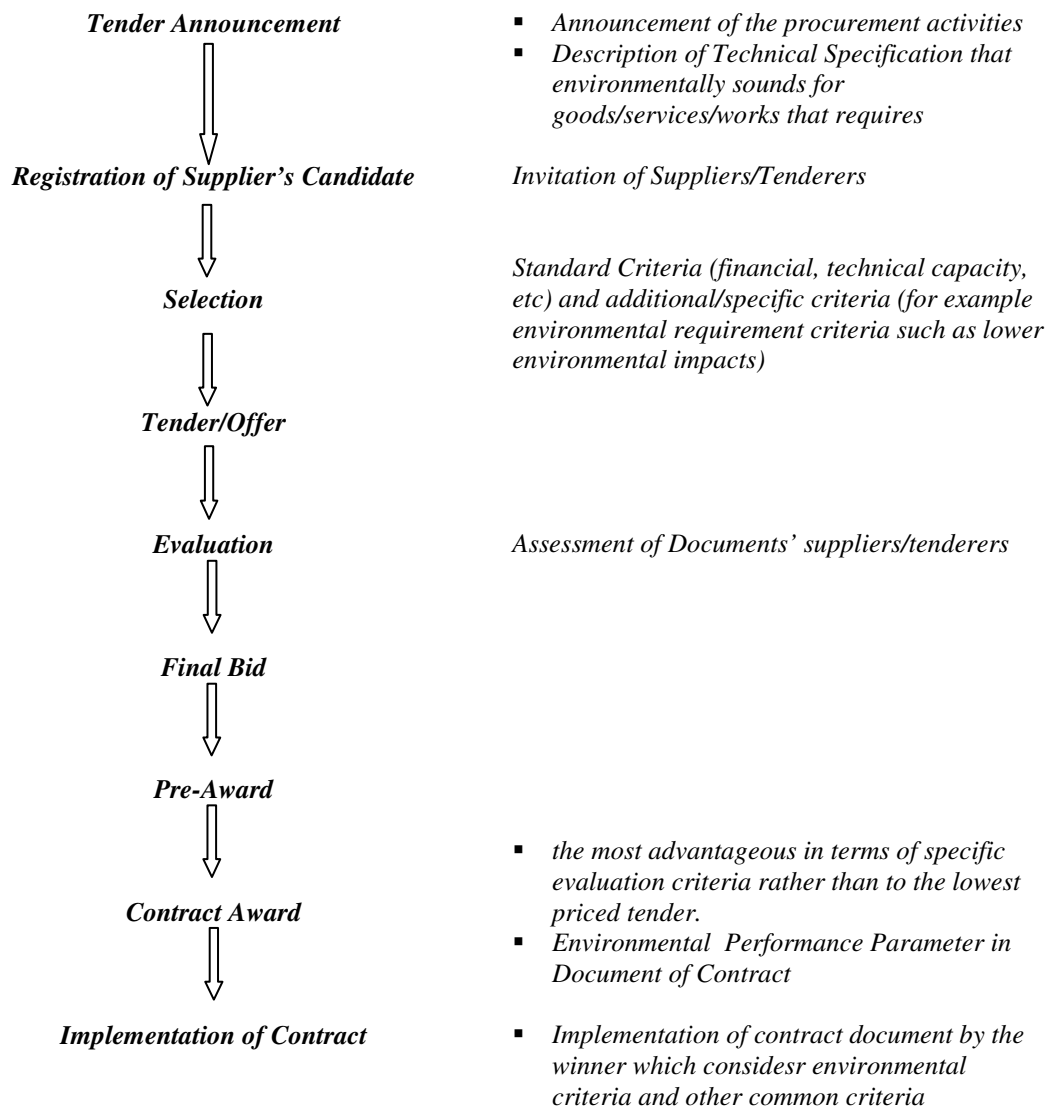
An important approach for green procurement in Canada is the measurement and monitoring/evaluation of green procurement implementation. This step is important to get better tracking of green procurement and to what extent the performance of every department in green procurement (PWGSC, 2000; Legault 2000). Form of measurement and monitoring of green procurement is through the automated system to record the procuring. This record will enable the government institutions to set measurable targets and monitor its performance progress. Monitoring/evaluation of environmental performance of that are based on the parameters/indicators which are stated as clauses in contract document signed by contractors/suppliers. It also helps the government institutions to *add green criteria* in its selection criteria for awarding contracts for goods/services and works to the chosen contractors/suppliers.

To achieve better green procurement implementation, one of important things is the *capable (government) employee* to implement all of policy related to the green procurement. Effective training programs and information tools are essential to increase employee awareness in environmentally sound in institutions' daily activities. According to this, Government of Canada has developed several useful greener procurement tools to assist employees in making better purchasing decisions, for example is developing greener procurement database that identifies greener product option for items of goods which are commonly purchased by the departments.

3.2.4. Green Procurement Procedure in Canada

Green procurement process in Canada has similar process with conventional procurement. For green procurement which requires environmental consideration, Focus of that procedure is on the content of each step. In Canada, green procurement does not seek to re-write the book on existing procurement process but merely to *add an environmental dimension* to the decision making process and also to the practices of procurement activities (Kunzlik, 2003). Generally, the procurement process in Canada more or less is influenced by the agreement in North America such as North American Free Trade Area (NAFTA). Most of the content of the procurement procedure refers to the NAFTA agreement especially in technical specification, qualification/selection, compliant tenders, and contract criteria (Kunzlik, 2003). Generally, some steps in the common procedure of green procurement in Canada are shown in Figure 3.1.

Figure 3.1
Green Procurement Process in Canada



There are three important things in all cases of procurement activities to assess the environmental criteria in procurement which are: the technical specifications of the good/service or works to be procured; the qualification and selection of potential suppliers; and the contract award criteria (PWGSC, 2006). Those areas are point keys to understand how far government authorities can incorporate environmental criteria in their procurement process.

Technical specifications

This is a part of tender announcement that the term of reference (TOR) of the purchasing/project explains about a specification which lay down good characteristics or their related process and production methods, or services/works characteristics. This clearly emphasizes specification laying down environmental characteristics of goods/services and works. For example, the characteristics of goods or services that fulfils the environmental criteria such as eco-labeling products or other requirement considering the environmental impacts.

Qualification/selections

Besides standard requirement for the potential suppliers (financial, commercial, technical capacity, etc), the qualification/sections regards to the environmental qualifications and capacity of its supplier will depend upon the specific requirements of the contracts. In this part, if the environmental requirements of the contract mean that potential suppliers will require technical expertise or specific equipments/facilities, these requirements will be stated in the invitation to participate and become one of selection criteria. This can be called as the *additional criteria* as part of compliant tenders and it states in tender documentation. This makes it clear that entities may not award the contract to a tenderer that has submitted a non-compliant tender. Every tenderer that does not accept or fulfill those conditions (environmental aspect which stated in technical specification) will be non-compliant and should be excluded. In brief, selection process in green procurement steps will include the environmental requirement that will be stated in the contract document. From those explanations, it is clear that it is needed to force the tenderers to have environmental awareness and able to conduct environmental criteria stated in the contract document. This action may helps government to achieve greener government as a part of environmental policy of Canada.

Contract Award

The criteria for awarding the contract which includes environmental criteria and other criteria such as prices, etc are stated in tender document. Thus, if the environmental criteria are to be included as award criteria, they must be stated in the tender document. Award must be made in accordance with the common criteria such as efficiency, fit with engineering aspect, etc; and additional requirements such as environmental requirement. Those criteria have to be specified in the contract document and can be used to monitor or assess the implementation. According to this, the award to supplier/contractor is determined to the most advantageous in terms of specific evaluation criteria noticed in tender document rather than to the lowest priced tender.

From those explanations, it is quite clear that environmental consideration become an important aspect in procurement process in Canada. It is in line with the statement that Canada through the green procurement policy has started to embed environmental consideration into procurement process in the same way with

considering the price and quality (Kenny, 2006). Regards to the procurement policy in Canada, value for money concept is fundamental to that process. Value for money here means that the process is not only considering cost/price and quality but also environmental performance. This requires an understanding of environmental aspects and potential impacts to the procure goods/service and works. In this context, value for money means that where opportunities exists to procure goods/services/works that are less harmful to the environment and represent value for money, the Government of Canada is committed to doing so (PWGSC, 2006). This commitment is stated in the guidance and also applied in practices to get goods/services or works that have lower environmental impacts.

3.2.5. Key Components toward Effective Green Procurement Strategies

Government of Canada has learned many important lessons through its experience in implementing a green procurement strategy. In order to effectively green procurement implementation within government organization and continuously improvement, applying some changes in management principles are useful way such as (Environment Canada, 2000 in Legault, 2000):

- Encourage a culture of environmental awareness by emphasizing incremental, pragmatic changes to the day to day decision making and responsibilities of all related institutions, managers, and employees.
- Simplify the environmental decision making process by integrating tools such as guidance to assess green goods/services that should be easy to understand and use them into the organization's procurement process.
- Define clear environmental accountabilities throughout all managerial and employee levels to strengthen commitment, action, and facilitate the examination of past greener procurement efforts.
- Establish realistic but challenging environmental targets to focus efforts, maintain momentum, and encourage a culture of continues improvement.
- Foster cooperation with other governments, non-governmental organizations, and industry leaders to increase practical knowledge, share best practice, and minimize duplication of efforts and initiate joint greener purchasing initiatives.

3.3. Concluding Remarks

Green Procurement in Canada, actually, was begun in around 1980's where the Canada's ECP program was established although it was specific for certain government's organization (Environment Canada) and just only a guidance to make public purchasing activities. In line with the awareness to the environmental issue both in local and global level, support of government for better procurement process is increasing. This condition was proved by issuing some policies, regulations and guidance to realize not only in the objective of environmental policy but also in the practices such as procurement activities. Table 3.1 is shown some policies and regulations that support the procurement activities in Canada as explained in previous part of this chapter.

Table 3.1
Canada's Policies and Regulations Supporting Green Procurement Activities

Year	Explanation
1988	Canada's Environmental Choice Program (ECP) → Environment Canada (EC) guide of making environmentally sound purchasing decision
1994	EC Green Procurement Policy in 1994 → Issued by Environment Canada
1995	<i>A Guide to Green Government Policy</i>
1995	Canadian Environmental Assessment Act (Canadian EIA)
1997	First Strategy of Sustainable Development Strategy, 1997
1997	department's operational environment policy, firstly approved in 1997
1999	<i>Canadian Environmental Protection Act (CEPA) 1999</i>
1999	Green Procurement Policy (reviewed of Green Procurement Policy 1994) → prevail for every Government Institutions
2000	Second strategy of sustainable development, 2000 → Environmental Management System (EMS)
2006	Newest policy on green procurement → support sustainable development by integrating environmental performance consideration into the procurement decision-making process

Supporting condition is needed to establish the Canada's green procurement as one of instruments for achieving sustainable development's objective. One of important things is commitment from Government of Canada and other actors to build better environment through green procurement as one of environmental policy instruments to achieve that objective. Green procurement is conducted together with other environmental instruments such as EIA, pollution standard, etc to achieve better environment. Policy/regulation and real practical example from Canada's government to do better (green) procurement is one of push factors to encourage broadening of environmental awareness (Environment Canada, 2000). From the description above, there are some notes about *supporting condition* of green procurement in Canada such as:

- *Policy/Regulations:*
Generally, there are integrated policies/regulations in Canada from political will issued by government to the guidance to implement the procurement policies. Stressing on inclusion of environmental aspects to daily activities included the green procurement and its become a focus on Canada's policies/regulations.
- *Actors/Institutions:*
All of government institutions have same view on environmental issues and their awareness to implement it in each department. Besides, private sector (suppliers/contractors) who produce goods/services and works is encouraged to care with the environmental issue.
- *Human Resources:*
Related to the continuous improving in green (public) procurement activities, the capabilities of government staff and project managers are always improved to perform procurement activities in specific and, generally, to understand the environmental awareness.
- *Implementation of Green Procurement:*
As described in previous part, implementation of green (public) procurement in Canada is prevailed for every government institutions both for central and local institutions. Availability of clear guidance and an obligatory principle to include the environmental requirement in the process and also in the contract award supports the implementation of green procurement. In addition, support from supplier/contractor to produce environmentally friendly goods/services (such as

eco-label products) and works helps government in achieving the objective of sustainable development strategies where one of them is through green procurement.

From the description of Canada’s green procurement, it proved that Canada is quite good in implementing a green procurement process. There are some aspects in implementation of green procurement in Canada that can be learned for other countries such as Indonesia. Some strength points from Canadian green procurement implementation are good support from government and support from other actors, clear role of government institution, etc. Although have strength points, Government of Canada think that there are some challenges/crucial points in implementing green procurement. Brief description of strength and crucial aspects is shown in Table 3.2 below.

Table 3.2
Important Aspects in Green Procurement Experiences of Canada

Aspect	Note
Strength	<ul style="list-style-type: none"> ▪ Government supports: policy, regulations, guidance, etc. ▪ Clear role of each government institutions in green procurement ▪ Obligation to include environmental requirement to the process and also to the contract award in procurement. ▪ Control both internal (such as establishment of supervision institution and its role) and external (supervise of people and institutions outside government) for implementation ▪ Continuous improvement to better green procurement ▪ Support by environmentally industries/suppliers → environmentally friendly goods and services
Challenges/Crucial aspect	<ul style="list-style-type: none"> ▪ Decentralization process → more authority needs more control ▪ Limited time and financial resources to increase and improve better green procurement → misinterpretation in beginning of introduction of green procurement ▪ Comprehensive evaluation about implementation of environmental requirement stated in contract

Chapter 4

Current Procurement Condition in Indonesia

This chapter provides a brief concept of Indonesian environmental development and Indonesian procurement condition. Focus of this part is explanation of some aspects toward to the green procurement in Indonesia. There are three parts in this chapter which are sustainable development perspective in Indonesia; current procurement in Indonesia; and challenges toward green procurement in Indonesia.

4.1. Sustainable Development Perspective in Indonesia

Indonesia's commitment to the sustainable development, actually, was started around late 1970's or since PELITA III (Five-Year National Development Plan III) that has considered the importance of environmental issue on development. Summit Conference on Human and Environment 1972 in Stockholm, Sweden has triggered political will of Government of Indonesia to implement first concept of environmentally sound development and strengthen its political will after the result of World Summit on Rio de Janeiro in 1992 and Sustainable Development Summit on Johannesburg in 2002.

The enactment of Environmental Management Act (EMA) No 4 in 1982 (latest reviewed is EMA No. 23/1997) was proved that Government of Indonesia tries to concern on development impacts to the environment. This enactment was considered as the birth of Environmental Impact Assessment (EIA), called as *AMDAL* (*Analisis Mengenai Dampak Lingkungan*), in Indonesia as one of efforts to achieve and to implement the sustainability concept in whole development. This act is followed by the specific regulation on EIA through the Government Regulation No. 29/1986 (reviewed by Government Regulation No. 27/1999). Focus of AMDAL or the Indonesian EIA is analysis of huge and important environmental impact of certain planned activity that is needed for helping decision making process to implement that activity (Ministry of Environment, 2000). Timeline of Indonesian EIA (AMDAL) is shown in Table 4.1 (Purnama, 2003).

Table 4.1 EIA's Timeline in Indonesia

Phase	Period	Regulation
I	Prior to 1987	Limited implementation of EIA (No specific regulation, Based on Act No. 4/1982)
II	1987-1993	Government Regulation No. 29/1986
III	1993-2000	Government Regulation No. 51/1993
IV	After 2000	Government Regulation No. 27/1999

Source: Purnama (2003)

To adapt global changes in sustainability, prior to the national agreement, Government of Indonesia reviewed the EMA No 4/1982 and changed it by the new EMA No. 23/1997 to strengthen the implementation of sustainability concept in every development. According to that commitment and developing of sustainable development concept, in 2004, Government of Indonesia declared the National Agreement and Action Plan on Sustainable Development (Ministry of Environment, Indonesia, 2004). Focus of this agreement is to implement the sustainable development in Indonesia for the prosperity of Indonesia's citizen. In every national

development plan, especially after world summit 1992, development framework/policy is based on the concept of sustainable development.

The existence of those policies on environment means that it is expected that all activities have to consider environmental aspect. Every effort to minimize the environmental impacts has to be a part of achieving the sustainable development as general objectives of development. Regarding to that, procurement as one of environmental policy instruments should follow that objective. The next part depicts condition of procurement activities in Indonesia and other related aspects toward the green procurement implementation in Indonesia.

4.2. Procurement in Indonesia

4.2.1. Current Procurement in Indonesia

Procurement activity in Indonesia, especially for public procurement, is arranged in *Keputusan Presiden* (Presidential Decree) and it has been reviewed many times to adapt the changing circumstances. Public procurement has to be specially arranged because in Indonesia volume of public procurement by government is very large and it is vital and influence Indonesian macro economy (budgeting expenditure of purchasing), and also as an instrument to create good governance (World Bank, 2001).

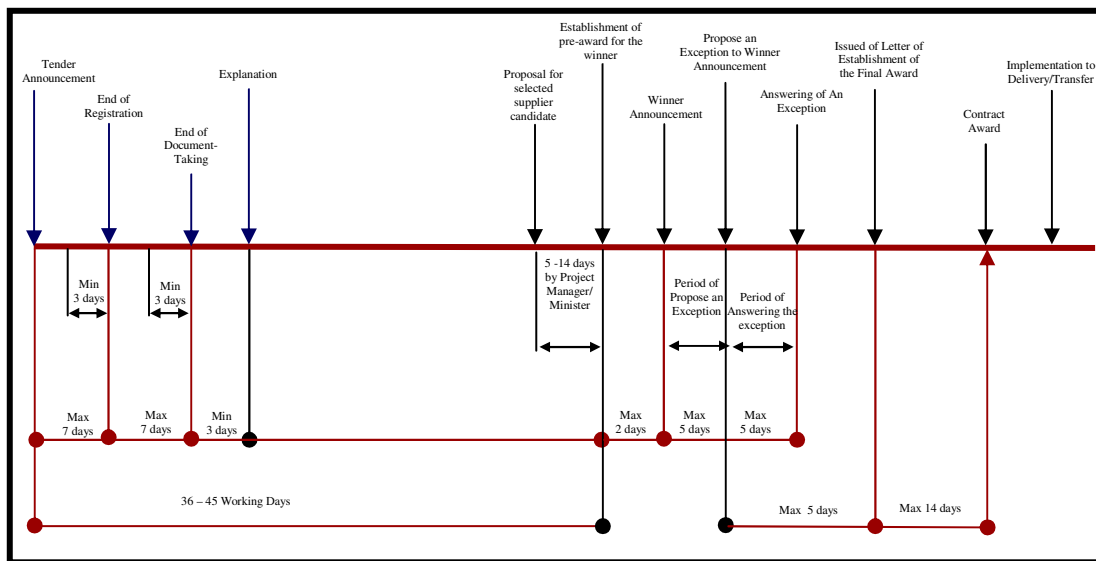
The *public* procurement in Indonesia is conducted to provide goods/services and also infrastructure works. Those activities is involved a huge amount of money. According to Asian Development Bank (ADB) Report (2005), Government of Indonesia (only for Central Government) spent more than \$30.4 billion and almost \$8.5 billion of that is spent for goods/services and infrastructure works conducted through procurement process. That activity has significant impact not only to the economy condition but also to the environment both directly and indirectly. It is worthy that procurement activity for public procurement has to be arranged by presidential decree level.

Procurement of goods/services and works for public interest in Indonesia, nowadays, refers to the Presidential *Decree* No. 80/2003. This decree reviewed the former Presidential Decree No. 18/2000 about public procurement. Generally, both of those decrees is quite same in the core of content about procurement but the latest decree, Presidential Decree No.80/2003 is more comprehensive but it is simpler than the former decree (Government of Indonesia, 2003). Focus of Presidential Decree No. 80/2003 is stressed to the decreasing high economy cost; simplify the process (especially in time and stages of procurement); decreasing the corruption; increasing competition among the supplier; and increasing the professional staff in procuring the goods/services and works (Bappenas, 2003). From this focus, it is seen that procurement process in Indonesia tends to the good governance aspect implementation and it is less attention to the environmental issues (World Bank, 2001; Bratasida, 2005). General procedure of public procurement in Indonesia is shown in Figure 4.1.

Procedure of public procurement in Indonesia, generally, is not different with procurement procedure implemented in other countries or international donor/institutions (ADB, World Bank, etc) which consist of sequential procedure from tender announcement to contract award. This procedure is used for procuring goods/services and works such as infrastructure development which is arranged by government for public interests (Government of Indonesia, 2003). The important aspects in new procurement regulation (Presidential Decree No. 80/2003) compared to former regulation are *Integrity Pact* and requirement of *certificate of competences*

for procuring staff who is involved in that process. Integrity Pact (article 9 (3) of Presidential Decree No. 80/2003), is an assertion letter signed by member of procuring team (authority) to assert that the process will run without corruption. Each member of procuring team has an obligation to possess *certificate of competences* (article 9 (1) Presidential Decree No. 80/2003) as a proof that each member is capable in procurement activities (Bappenas, 2003). This way is an effort to improve the capability of human resources in procurement process and the staffs have to follow training about procurement to get this certificate.

Figure 4.1 Procurement Procedure based on Indonesian Presidential Decree No. 80/2003



Source: Interpretation of Author on Presidential Decree No. 80/2003

The general objective of procurement regulation tries to achieve that the implementation of provision goods/services and works is efficient, effective, transparent and fair/non discriminative, and accountable. According to this, public procurement regulation is focused on the some standard criteria consisting of price, quality, and availability. In implementation, the price factor and availability is using more than quality. So, the result of procurement process is more stressed on the most favorable cost (economically advantageous) of bidder to achieve the goals of the project.

A procurement process in Indonesia as a tool for helping a decision making use the establishment of standard procuring criteria that comprise of price, quality, and availability (Presidential Decree No. 80/2003). But in implementation of it, price factor is always considered as more priority factor rather than quality and availability (Bratasida, 2005). It is not means that quality and availability is ignored but the process tends to consider price aspect because some limitation in budget expenditure of government as the user. An existence of the importance of environmental impacts is encouraging the process of procurement to be more consider to the quality factors. Bratasida (2005) in her paper said that the environmental impacts of goods/services and works procured should be included as a part of the “quality” criteria. Description of procurement activities will be elaborated in next part of this chapter.

4.2.2. Existing Condition of (Green) Procurement in Indonesia

Public procurement is a central pillar in the government's ongoing efforts to improve good governance implementation. A poor procurement system result a higher costs to government and to the public (World Bank, 2001). To develop good procurement included the green procurement; there are some factors to support it as mentioned in the second chapter of this study. Green procurement in Indonesia is not implemented yet. It is still as a discourse and is not formalized yet in specific regulation or policy, although some activities to support environmental consideration have been done such as standardization on environmentally goods/services, eco-labeling, or suggestion to use environmentally friendly products/materials for infrastructure development (Ministry of Environment, 2006). This part will describe the existing condition of some aspects as pre-condition factors explained in chapter 2 and also can be seen in Figure 2.4 for Indonesia procurement's condition. Those pre-condition factors consist of political will and regulation; institutional capacity; human resources capacity; role of public in procurement; and in the last is process implementation part as an additional explanation to describe current procurement implementation in Indonesia.

➤ *Political Will and Regulations*

Political will in this study can be explained as a policy that is issued and developed by government to achieve certain objective in environmental aspect. Regarding to the previous part in this chapter, some of political will (included regulation) about environment from government of Indonesia is constituted in:

- *Propenas* (National Development Program), focus on prevention and improvement of (damage) environment
- *Environmental Management Act* No.4/1982 revised by the Act No. 23/1997. It states the general consideration toward management of the environment in Indonesia.
- *AMDAL* (Indonesian EIA), the latest regulation is Government Regulation No.27/1999
- Other detailed regulations such as Presidential, Ministry, Governor, and Regent/Major Decree.

Those political will and regulations are directed to improve environment and try to prevent the environment from destructions. Procurement related to the procuring goods/services and works should consider those environmental will or regulations because that process may influence to the environment both directly and indirectly. The presence of EIA (EIA Study/EMP) will help in determining of environmental criteria that is needed in procurement process of certain projects. Those criteria can be stated in technical specification of tender document and in contract document.

Generally, environmental aspect has become a basic factor which is considered in development included in infrastructure development. Indonesia has considered the environmental aspects in its development although at the beginning phase (around 1970s) is caused by the external (global) factor such as pressure from donor agency like World Bank in conducting the projects (Purnama, 2003), global agreement (environmental summit by United Nations), etc. Many projects or developments conducted in Indonesia are funded by donor agencies or multinational companies operating their projects in Indonesia. Regarding to that, requirement of environmental consideration is asked more by them. For example is about the

initiation of EIA implementation which was led by external institutions (George, 2000 in Purnama 2003 p. 418). Although the environmental consideration is increasing, the focus of environmental impacts on development is still less until now, included the involvement of public on it.

Although some regulations or acts are reviewed, added or issued, government will to give more attention on environment is still less. Not only less on environmental regulations but also on implementation and law enforcement. Bratasida (2005) in her paper said that developing country included Indonesia has low level of political will to address environmental issue and has inadequate law enforcement. For example, in 2002 the *Badan Pengendalian Dampak Lingkungan/Bapedal* (Environmental Impact Management Agency = EIMA) is dismissed by the Presidential Decree No. 4/2002 (Santosa, 2002; Ministry of Environment, 2006). This agency was very crucial for controlling the environmental impacts. This condition proved that political will in Indonesia to support the environmentally sound of development is inadequate (Santosa, 2002).

According to the green procurement, the will from Government of Indonesia is still inadequate. There is *no specific policy or regulation* regard to the green procurement. Even though no specific regulations, Indonesia through Ministry of Environment has arranged the list of Eco-Labeling Certification System that basis on the ISO 14000 series related to the environmentally product. Up to 2006, Eco-label implementation in Indonesia is still in developing process and focusing on eco-label type I that based on ISO 14001 (called as Indonesian National Standard/SNI 19-14001) for some Industries which produce some goods that comply with the environmental standard or quality (Ministry of Environment of Indonesia, 2006). Existence of Eco-Labeling certification will help to implement the environmentally procurement. Government as the “highest company” in procuring goods/services or works has to encourage the extension of this system and to realize it in policy concept for green procurement. But up to know there is no regulation to force the procurement process in every departments/institution to use the eco-label products as an obligatory requirement and it is more to the voluntary action.

➤ *Institutional Capacity*

Generally, there are governmental institutions that involved in existing procurement process in Indonesia but there is no main institution who responsible for all procurement activities. Each department or unit has autonomy to implement existing procurement refers to the same regulations. Some institutions involved in procurement process in Indonesia:

- *Ministry of Finance* has role to control of government expenditure on procurement of goods/services/works and also issue some guidelines about financial aspects in procurement for all department/government institutions.
- *Board of Audit*, has role to monitor and supervise all government activities included the procurement and its implementation. Audit Board in Indonesia consist of three institutions which are: (i) *Badan Pemeriksa Keuangan/BPK* (The Audit Board) as external audit institution; (ii) *Badan Pengawasan Keuangan dan Pembangunan/BPKP* (The Financial and Development Supervisory Board) and (iii) Inspectorate General in each government institutions. BPKP and Inspectorate are internal audit institution.
- Each department/government institution that implements procurement practices for their needs.

In procurement implementation, procurement process refers to the Presidential Decree No. 80/2003 and some guidelines for procurement application (issued by Ministry of Finance). The criteria to the process depend on each department or unit that fulfills the procurement process. Evaluation and monitoring of the process is done by themselves and generally the process from the beginning till the contract award more refer to the price aspect rather than the quality aspect or balances of both. Those conditions show that the cheapest one is prioritized for selecting the winner and price criteria tends to be used in that process (Bratasida, 2002).

For existing procurement activities, there is no specific institution to govern and monitor the procurement implementation and it depends on each department. This is different with the Canada where there is a specific institution (PWGSC) which is responsible to the implementation of procurement activities in every government institutions (PWGSC, 2006; Legault, 2000). Regarding to this, World Bank (2001), in procurement assessment report for Indonesia, has suggested to establish a specific institution (*National Public Procurement Office*) to govern procurement activities in order to effectiveness and control. It has function to formulate national policy in procurement and also in monitoring of procurement implementation. This suggestion is based on the assessment by World Bank that performance of government institutions in existing procurement implementation still weak (World Bank, 2001).

Controlling and monitoring is the most important aspect for Indonesian procurement. According to the World Bank Report (2001)⁶ and ADB (1999), capacity of institution in Indonesia in controlling and supervision is still weak and it needs to be improved or strengthened in existing procurement process. This condition becomes one of reasons to review former procurement regulation to the recent regulation, Presidential Decree No.80/2003 (Bappenas, 2002). Role of audit board in procurement process is not good yet. So that, some assessment reports suggested to improve and to strengthen the capacity of audit board in the future (World Bank, 2001; ICW, 2004)

Regarding to the green procurement, Indonesia is not implementing it yet (Bratasida, 2005). However, related to the environmental requirement on the procurement activities, the role and existence of institution for environment affairs is needed. Ministry of Environment and other environmental agency play important role to help involvement of environmental aspect on procurement activities especially for infrastructure procurement that can give significant impact to environment. The implementation of environmental standard such as eco-labeling or ISO 14001 certification for materials used in the infrastructure development is important.

According to that, the role of Ministry of Environment and other government institution has to increase their capacities to improve procurement implementation. Related to environmental consideration in green procurement, Ministry of Environment will have significant role in making regulations and guidance. At present, Ministry of Environment realizes that implementation of environmental standard/requirement is needed, but some of them sometimes are not used optimally in procurement process as technical specification (Ministry of Environment, 2004). For example, supply of environmentally friendly goods/materials that fulfils the standard is limited because the supplier of goods and services that fit with the environmental standard is still limited. This condition means that

⁶ World Bank Team, (2001), 'Indonesia: Country Procurement Assessment Report.' World Bank Office for East Asia and Pacific Region.

provision/availability of environmentally goods and services to support the implementation of greener procurement will not be optimum.

➤ ***Human Resources Capacity***

World Bank (2001, p.2-5) in its report on Country Procurement Report Assessment for Indonesia reported that one of weaknesses for procurement process in Indonesia is related to the human resources especially for good project managers and procurement practitioners. One reason to the review of procurement regulation from Presidential Decree No. 18/2000 to Presidential Decree No. 80/2003 is related to the improvement of human resources. The newest regulation stressed to the improvement of human resources in procurement by certification of competences on procurement. Before year 2008, the government employee who involved in procurement activities as the committee has to have certification in procurement course (Bappenas, 2006). Actually, based on that decree, certificate requirement have to be finished in 2006, but because of unprepared of the authorized institutions in this course, the certificate requirement for the member of procurement committee is extended until year 2008 (Bappenas, 2006). This condition proves that expertise or capable staff in procurement activities still low not only in quantity but also in quality.

➤ ***Role of Public on (Green) Procurement***

Environment becomes an important issue in all development aspects. Recently, people awareness on environmental issue is increasing compared to the past time. Portion of public involvement on environmental decision making is increasing gradually. For example, room for public to control environmental impacts is provided such as stated in Government Regulation No.27/1999 about AMDAL (Indonesia EIA).

According to the public procurement activities, public control by citizen is increasing especially for the some aspects such as transparency, fairness, and the corruption that happens in some procurement process in Indonesia (World Bank, 2001). Regarding to those people control, of course, the attention to the better procurement included more environmentally procurement is increasing. Not only personal or individually but also as people's organization in Non Governmental Organization (NGO), as represent of the public, has concern to the environmental aspects in development. Because procurement involves the huge amount of money in purchasing and has direct or indirect impacts to the environment, NGO's attention to this activity is increasing. This condition happens in Indonesia, especially after the reformation era in 1998 that people control to the government activities more unimpeded than in the past. Generally, the involvement of public is indirect and tends to the supervision on how far the procurement process fit with the governance criteria and also how far those contractors/suppliers implement of the aspects included environmental clause which is stated in the contract of project. Public cannot direct involve in the process of procurement itself.

➤ ***Process Implementation***

Generally, procurement process in Indonesia is not directed to fully green procurement. Green procurement, especially in public procurement, is not being implemented yet in every department/government institution. There is no obligation to use the goods and services that fulfill the environmental requirement (such eco-label product) in public procurement. The usage of environmentally goods or services only just a voluntary action and there is no specific regulations from government to force government institution and also private/business institutions to implement it in

their procurement process. Besides, the list of environmentally products or services is limited (Ministry of Environment, 2006). Those conditions show that some products/services that fit with the environmental requirement are less and it influences to the developing of green procurement in practices.

From procurement procedure in Indonesia, some of the crucial/important steps regard to the environmental aspect are (1) the content and explanation of term of reference (TOR) document about the project and; (2) the contract award and its content. Often in TOR of project, the environmental aspect to accomplish the purchasing good/service and works is not explicitly explained/stated in that document. For example, the requirement to use/buy the environmentally products (eco-label product) is not an obligation for the candidate of suppliers. In most contract award document for some project, the environmental requirement included the indicators/parameters is not explicitly stated (Ministry of Environment, 2006). The environmental requirement on contract and also its evaluation is almost always limited.

From previous explanation above, the green procurement elements such as the usage of environmentally goods/services and environmental requirement on contract award, are seldom implemented in Indonesia's procurement activities. Some aspects to achieve green procurement are not encouraged to be implemented and most of them are implemented implicitly and voluntarily (generally, the implementation depends on each departments/unit of organization). That explanation concludes that the content of procurement process does not include environmental criteria in order to achieve environmentally procurement.

4.3. Challenges towards Green Procurement in Indonesia

Previous part explained that most of procurement activities in Indonesia are focus on non-environmental aspects (good governance aspects such as fairness, efficiency, and free from corruption, etc). Procurement activities can be viewed as one of the tools of policy to help in minimizing of environmental impacts. Procurement as activities of purchasing goods and services especially in public procurement in Indonesia has huge impact on environment because it is related to the huge purchasing of goods and services for public interest and also involved huge amount of money. It means that procurement activities has important role to help in achieving better environment.

According to the explanation on previous part of this chapter, it can be concluded that green procurement in Indonesia is not being implemented yet to help in achieving environmental policy objectives. Some of the challenges and opportunities faced by green procurement implementation in Indonesia refer to the some aspects which have been elaborated above are:

- Weaknesses on political will related to the green procurement
 - Low level of entering environmental aspect on procurement process
 - No obligation to put environmental requirement on contract award in procurement process
 - No additional environmental criteria to shape a green procurement.
- Role of related institution for controlling the procurement process related to environmental consideration is limited
- Higher attention of public to the government activities related to the environment, included to the procurement process
- Problems in professional staff in procurement activities especially to the staff that aware to the environmental consideration.

4.4. Concluding Remarks

Previous part told that Indonesia faced some challenges in implementation of green procurement. Generally, green procurement in Indonesia has not implemented yet for all procurement activities. Implementation of good green procurement will not easy and needs integrated coordination and supporting regulations from government and non-government support such as supplier/industry. Some weaknesses that emerge in existing procurement implementation in Indonesia become constraints toward green procurement implementation. Furthermore, development of green procurement needs time to get its established.

Procurement activity in Indonesia is still focusing on the problem of governance aspect that describes the aspect of transparency, fairness, etc. Green procurement, as one of environmental policy instruments/tools, is not implemented yet to support the Indonesian will on the environmental issue. Inadequate will of government on green procurement still becomes a real condition in Indonesia context (Bratasida, 2005). It is marked by the condition that there is no specific regulations/guidance on green procurement and also no specific institution that responsible in implementation and supervision. Furthermore, human resources capacity on procurement is still weak that is symbolized by the need of certification on it stated in the recent procurement regulations (Presidential Decree No. 80/2003).

Although there are some weaknesses on the procurement condition in Indonesia as mentioned above, increasing of environmental awareness of people/NGO is becoming a positive point to encourage more environmentally procurement activities. Starting of eco-labeling or environmental standard (e.g. ISO standard) on a few of procurement implementation (still voluntary action) becomes another positive point toward green procurement implementation. On the other side, support from suppliers/producers/contractors producing environmentally goods/services and works is still limited. In short, existing procurement in Indonesia is not supporting yet to the objective of environmental policy such as minimizing environmental impacts to achieve sustainable development. Description of those conditions in Indonesian procurement is shown briefly in Table 4.2.

Table 4.2
Important Pre-Condition Aspects toward Green Procurement in Indonesia

No	Aspects/Factors	Indonesia's Condition
1	Political Will/Regulations	<ul style="list-style-type: none"> ▪ Increasing awareness of government on environmental issue/aspect but still limited and considerably young ▪ Problem in implementing good governance in all aspect included the procurement implementation (more focus on governance than environmental aspects) ▪ No specific will/regulation on green procurement implementation except less of it such as starting of eco-labeling/ISO standard implementation
2	Institutional Capacity	<ul style="list-style-type: none"> ▪ No specific institution that responsible for (green) procurement activities ▪ No specific government institution to supervise (green) procurement activities
3	Human Resources	Lack of capable human resources in procurement activities
4	Role of Public and Supports from other actors	<ul style="list-style-type: none"> ▪ Pressure from NGOs and citizen to be aware on environmental factors for all government activities included procurement activities. ▪ Emergence on environmental awareness still in developing stages

		<ul style="list-style-type: none"> ▪ Lack of supports from other stakeholders especially to create suppliers/producers/contractors considering environmental aspects.
5	Process Implementation	<ul style="list-style-type: none"> ▪ No experience in Indonesia for green (public) procurement → less attention to include environmental requirement ▪ No specific legal mandate to support green procurement implementation

Chapter 5

Towards Green Procurement Implementation in Indonesia

This chapter analyzes about possibilities of green procurement implementation in Indonesia. Analysis will be related to the previous chapters and consider some factors that influence the implementation of green procurement in Indonesia. Focus of analysis is on the pre-condition factors of green procurement aspects to be implemented in the Indonesian context which is not implementing yet the green procurement. Comparison of (green) procurement in Canada and Indonesia including the lessons from Canada, possibility towards green procurement implementation in Indonesia, and example of green procurement implementation for road development will be explained in this chapter.

5.1. Comparison of (Green) Procurement in Canada and Indonesia and Its Lessons for Indonesia

Referring to the previous part, some pre-condition factors of green procurement are important to develop in its implementation. Lessons from experienced country such as Canada in developing green procurement will be analyzed for the Indonesia's condition. Pre-condition factors in Canada to build his green procurement can be taken to be adjusted for Indonesian context. Some important pre-conditions factors that have to be analyzed are political will and regulations, development of institutional capacity, human resources capability, involvement of other actors (public and private), and existing implementation of procurement. Those factors will be compared between Indonesia and Canada and it will be explained below.

Political will and Regulations

Political will (policy) from government is very important to the success of implementation of government programs included procurement activities. Support from government can be viewed as first important step for the success of green procurement. Percentage for better implementation will increase if more support is given by government. This part will analyze differences of will from Canada and Indonesia in (green) procurement implementation. Experiences from Canada are useful to be transferred with some adjustment for Indonesia.

In general, Government of Canada has clear and established will on environmental issue. Level of awareness from government to minimize the negative impact on environment encourages to the implementation of green procurement (Government of Canada, 2006). Government support through some policies or regulations on green procurement will be able to make the success of green government program in Canada. The existences of some policies and regulations on environment included green procurement guidance help all government's department/institutions to achieve green government goal. The supporting will from Government of Canada is complete enough to enhance the green procurement. Even the guidance for implementing it in all government departments is issued to make easier in practices. In short, Government of Canada has integrated government will with the supporting regulations and guidance to achieve the sustainable goals, as the main objective for Canada's development.

Actually, awareness of Government of Indonesia in environmental aspects is still in developing phase. Policy on it is available but still insufficient to encourage the green procurement implementation because there is less or even no guidance. Procurement viewed as one of environmental instrument is less showing in helping or giving contribution for minimizing environmental impacts. No specific policy or regulations to encourage the green procurement implementation in Indonesia is proved that environmental concerns receive less attention from government (Bratasida & Johansen, 2005).

Unlike Canada that has integration between objective on sustainable development policy and all environmental instruments included green procurement, Indonesia does not have integrated policy/regulations on green procurement whereas it has important role to help in minimizing the environmental impacts. Related to the huge amount of money on every procurement activities, green procurement has large impact to achieve the procuring of green goods/services and works, so that it helps to the effort to minimizing environmental impact.

Besides the un-integrated policies and regulations, the implementation and also the control of it in Indonesia are still less than what would like to be achieved. Some of the ineffectiveness of regulations/policies' implementation is about the limited guidance that helps to make clarity in green procurement practices. Even the law enforcement in certain aspect included in environmental aspect is weak and inadequate. Other real condition is that in procurement practices, there is no obligation to put environmental requirements on technical specification and contract award in procurement process or no additional environmental criteria to shape a green procurement. In Indonesia, these circumstances are common in the existing procurement practices in Indonesia which is in line with the study reported by World Bank (2001) and also by Bratasida (2005) and Ministry of Environment (2005). Those conditions prove that government of Indonesia pays less attention to the green procurement implementation which is seen from no will on it. In brief, politically, there is still lacking of leadership from government to encourage green procurement implementation in Indonesia.

Institutional Capacity

Other important factor in supporting the success of green procurement implementation is the institutional aspects. This is related to capacity and role of the institution in certain functions. Clear role and capacity of the institutions in procurement will help green procurement implementation in relation to the achievement of environmental goal such as minimizing environmental impact.

Canada has established the role of government institutions in procurement practices. The entire role is arranged by the Federal government to implement green procurement. Each institution, as explained in Chapter 3, has clear role on procurement practices and it will support to the achievement of the goal such as minimizing the environmental impacts through procuring goods/services and works. The policy on green procurement and guidance of green procurement bind all government institution in Canada to achieve government's sustainable development goal. Involvement of government institutions to implement green procurement becomes a culture for each of them in daily decision making (Environment Canada, 2000; Legault, 2000).

The existence of policies, regulations, and also guidance in procurement practices in Canada becomes instrument for Government of Canada to 'enforce' all government institutions to achieve the main objective on sustainable development and

minimizing environmental impacts (Legault, 2000; PWGSC, 2006; Government of Canada, 2006). Role of each government institution has large influence to the success of that objective. So, as one of instruments in environmental policy, green procurement applied in government area needs support from every government institution in Canada. It means that capability of each government institution to understand all procurement aspect is very important so that it becomes main attention for government. To strengthen this 'enforcement', the existences of clear role of government institutions in Canada have been established as it can be seen in previous part, Chapter 3. In short, efforts to strengthen the green procurement implementation in Canada are followed by strengthening the institutional capacity in each government institution.

According to Indonesia's condition, Indonesia government has given autonomy to each government institution to implement the procurement process. Because of no specific guidance on green procurement, there is no obligation to include environmental requirements on the procurement process from the beginning until the contract award. In Indonesia, there is no specific institution who has full responsibility in formulating procurement policy, enhancing and monitoring its implementation. It differs with Canada that there is one institution (PWGSC) as main institution in all procurement activities in Canada (PWGSC, 2006). The similar thing with Canada's condition that there are some institutions which are built to supervise the procurement process such as BPK, BPKP and Inspectorate General and they focus on governance implementation rather than environmental requirement on that process.

Referring to explanation in Chapter 4, capacity of institutions in Indonesia is still weak and need to be improved and to be strengthened in existing procurement process. One of the most important aspects is controlling and monitoring for procurement (World Bank, 2001; ADB, 1999). Other aspect is coordination that there is lack of coordination among the institutions who involved in procurement. This may be caused by no leading institution in Indonesia who responsible for all procurement process to formulate policy, enhance and monitor the implementation. From that explanation, it is clear enough that capability of government institution in Indonesia should be improved towards green procurement implementation.

In brief, capacity of institutions to develop green procurement in Indonesia is not as good as Canada. Role of institutions to implement green procurement is not formed yet because focus of procurement is not specifically towards to the green procurement but more to the good governance aspect whereas this aspect is also important. Thus, in line with the global issue, environmental awareness for every government institution in their activities enforces the inclusion of environmental aspect in government activities including procurement. From previous explanation, the need of capable institutions which have clear role to develop green procurement in Indonesia is important. Indonesia can take a lesson from Canada to develop its institutional capacity such as establish clear role for each government institution, role of supervision agency to monitor and supervise not only governance aspects but also environmental aspects, etc.

Human Resources Capacity

Capability of human resources supports the success of green procurement implementation. Government of Canada through Environment Canada has carried out the effective training programs and information tools to increase employee awareness on green procurement, so that policy of green procurement becomes daily reality for government institutions. For example, there is green suite of computer-based training

courses. This effort can be mentioned as a small step but it is influencing and encouraging employees to take responsibility for their procurement decisions (Environment Canada, 2000). Issuing of Green Procurement Policy (1999, reviewed 2006) supports to improvement of government staffs' ability in green purchasing decisions (PWGSC, 2006). In brief, continuous improvement of understanding the green procurement both for every department and for its staffs becomes main attention of Canada to build good green procurement implementation (Legault, 2000; Kenny, 2006).

On the other side, professional and also capable staff in procurement expertise is important but for Indonesia's condition, professional staff is limited. According to the assessment of procurement activities conducted by World Bank, there is lack of capacity in the majoring of working level staff and member of the procurement committees and approving authorities in Indonesia (World Bank, 2001). Indonesia has been starting the standardization of human resources ability on procurement process after issuing the Presidential Decree No. 80/2003 (Bappenas, 2003). This is marked by the obligatory certification for staff who involved in procurement process at the latest in 2006, as mentioned in Presidential Decree No. 80/2003 article 10, but because of unprepared authorized institutions in this course, requirement to have tat certificate for the staff/member of procurement committee is extended until year 2008 (Bappenas, 2006). Focus of this standardization tends to the equity of the procurement understanding process, but this understanding to the green procurement has not become main attention yet. From this condition, it is real that formation of professional staff/human resources in procurement which has same standard still in the beginning phase and need to be developed.

Involvement of Other Actors

Green procurement needs supply of environmentally friendly goods/services/works and also good industries/suppliers/contractors on it. The availability of those goods/services and works is important to support the success of green procurement implementation. According to that, Canada in its green procurement policy has been encouraging the suppliers/industries/contractors to provide environmentally goods/services/works. Government Canada always gives some requirement for involvement of industry/supplier in the procurement which is carried out by government. Certification (Eco-label, Canada standard certification, etc) is an example of requirement for involvement of other actors beyond government.

Government of Canada realizes that the success of government's program, such green procurement, is possible if the industry/suppliers/contractors are involved in that program. Kenny (2006) said that through green procurement policy, Government of Canada sends clear signal to other actors to change their view to be more environmentally thinking. She gives an opinion that other actor (especially industry/suppliers/contractors), beyond the government institutions, will help in the success of green procurement implementation. On the other side, most of the industry/suppliers/contractors in Canada support that policy. Now, most of the companies/suppliers/contractors in Canada have fulfilled that requirement such as certification on environmental aspect like eco-logo, ECP's certification, etc (Environment Canada, 2000). Private sector in Canada is encouraged to have awareness on environmental issue and support government's program.

Other important thing in involvement of other actor in Canada is about the citizen/public awareness on environmental aspect and also on government activities. Generally, level of awareness of citizen to environmental issues and government

activities in Canada is quite good, even government itself is make public consultation for their program, included environmental issues before taking decision (Bouder, 2001 p.28; Environment Canada, 2000). Government gives rooms/spaces through some regulations for public supervision and involvement. Regarding to the procurement process, involvement of public is indirect and tends to the supervising whether the procurement process fit or not with the goals both in governance aspects and also environmental aspects. For example Government of Canada has to fulfill government's commitment to procure greener goods/service/works in order to achieve greening government (Environment Canada, 2000; PWGSC, 2006).

In Indonesia, involvement of other actors outside government institutions (private and public) in environmental aspects for project development and decision making process are considerably young, especially for citizen/public involvement and it just recently emerges (Bratasida, 2005). Room for public involvement in the past time was limited. It can be seen in some former regulations that room for public to be involved both direct (such as decision making process) and indirect (such as supervising in the process) in government activities was limited. The public involvement in environment is conducted better than before especially after the newest Environmental Act No. 23/1997 (stated in Chapter 3 article 5, 6, and 7 about right, obligation, and role of public in environment) and encouraged by the reformation era in 1998, although in implementation/practices is still need to be improved (World Bank, 2006).

According to the greening instrument, involvement of private sector on government's policy/program on environment in Indonesia is still low (Ministry of Environment, 2004). Commonly, industry/suppliers as producer of certain products/services are not fully producing environmentally friendly products. Certification of green product/service for industry/supplier in Indonesia is still limited and it causes the limited list of products/services that fit with environmental requirement standard. Number of green products/services marked by the environmental certificate such as ISO 14000 series or others are still limited. Furthermore, no obligatory statement for environmental requirement in contract award caused many contractors who conduct that contract is not fully implementing environmental standard and lack of awareness on it.

Besides private actors (industry/supplier/contractor), public role included the citizen and the NGO in Indonesia is important. Role of them in procurement process is not directly but tends to the supervising of that process in order to fit with the regulations and also that process give less impacts to environment. Supervision conducted by them in that process is better than in the past but recently the focus of them in procurement is still on the governance aspect such as transparency, fairness, etc. Attention to environmental aspects in procurement process is still lacking but it is not means that environmental concern is neglected. Recently, demands from public to push government activities included procurement to be more environmentally friendly is increasing (Ministry of Environment, 2006). Now, all of government activities, included procurement process, have to be transparent both in process and in budgeting (ADB, 1999). The supervising role, as one form of public involvement, in procurement process can be done through an easy access to information of that procurement process. That condition is showing that in one side, government has to consider environmental aspect in all their activities, and on the other side, public awareness, directly or indirectly, on environment is increasing. In short, public awareness in Indonesia is still in emerging phase but it becomes a basis to develop green activities included green procurement.

Procurement Process

Procurement implementation in Canada does not too differ with other countries but for green procurement, the difference is the inclusion of environmental consideration as an 'obligatory' for all government institutions. Canada have been forming the environmentally/green procurement as a part of their umbrella/main strategies to achieve sustainable development by reducing the environmental impacts. This process took enough time to form it and needs continuously improvement.

At the beginning phase, green procurement in Canada tends to the political aspect regards to the will of government to conduct *greening government* policy (Legault, 2000; PWGSC, 2006). At this phase some policies were issued to support the environmentally process/activities especially in government institutions. Involvement of all government institutions have to be active involvement that there is an obligatory action to carry out the environmentally procurement (Bouder, 2001; Environment Canada, 2000). The existence of supervising and coordinating institutions in Canada (such as CESD) is formed to establish that the procurement implementation is on the right track with the policy. Besides, government is making partnership with industries/suppliers/contractors and is encouraging them to produce green goods/services or works supporting government policy through environmental standard/certification. Other important aspect is the procurement procedure that implements/states the environmental criteria/requirement from beginning of process until the contract award. The inclusion of environmental aspect becomes 'obligatory' for procurement process where all government institution have to implement it. The process is also supported by the capable staffs that always continuously improve their capability.

Generally, Indonesia is not implementing yet the green procurement and still focus to good governance aspects such as transparency, fairness, etc. It means that there are some elements to implement green procurement which are needed in its development. Some policies related to the environmental issue and its impacts are available but a specific regulation to encourage the green procurement implementation is still needed. The availability of some existing policies/regulations on environmental aspect can be a starting point to encourage green procurement implementation. Besides, provision of green products/services still needs to be developed because it has significant impact to achieve green procurement process. This condition shows that it needs to encourage suppliers/contractors to increase their awareness on environmental aspects both in process and results. In the procedure aspect, the inclusion of environmental consideration and criteria on procurement process is not a compulsory action but still voluntary. Furthermore, lack of capable/professional staff on procurement is a real condition that has to be faced by Indonesia (Bratasida, 2005; World Bank, 2001).

Those conditions are describing that (green) procurement in Indonesia is left behind compared to Canada. It means that the process of procurement in Indonesia cannot be judged able to support the achievement of sustainable development goal and is also not supporting yet the efforts to help in minimizing the environmental impact caused by goods/services purchasing. Although the green procurement implementation are not being started in Indonesia, some actions that can support green procurement are being started such as socializing of green products/services and works for procurement in government activities, enhancing action to minimize negative impacts on government's construction/infrastructure project, etc (Ministry of Environment, 2006). In brief, the process of current procurement in Indonesia should be improved to support that environmental objectives and it means that the need

towards green procurement is quite important. Comparison of procurement's condition in Indonesia and Canada is shown in Table 5.1.

Table 5.1
Comparison of Aspects on (Green) Procurement between Canada and Indonesia

Aspect	Canada's Condition	Indonesia's Condition
Political Will/Regulations	<ul style="list-style-type: none"> ▪ Adequate will to support green procurement (Greening Government and Policy on GP) and also integrated with others (CEPA, CEA Act, etc) ▪ Has specific guidance on green procurement 	<ul style="list-style-type: none"> ▪ Availability of environmental policy/will (Environmental Act, EIA Regulation, etc) but inadequate integration among them ▪ No will and no specific guidance on green procurement
Institutions	<ul style="list-style-type: none"> ▪ All government institution has to adopt green procurement (bounded by policy on procurement) ▪ Clear role of each institutions involved in green procurement ▪ Has specific institution/board to supervise green procurement implementation (interdepartmental committee, Advisory Board on Contract, etc), ▪ Has centralized/specific institution that responsible for the management of facilities and procurement (Department of PWGSC Canada) ▪ Future problem in decentralization → more authority needs more control 	<ul style="list-style-type: none"> ▪ No specific government institution that fully responsible for procurement activities ▪ No obligation to adopt (green) procurement (not yet implement green procurement) for all government institution ▪ Has boards/institutions to supervise/monitor the current procurement process
Human Resources	<ul style="list-style-type: none"> ▪ Adequate capable/professional staff for procurement activities ▪ Continuous improvement of human resources capacity such as by training about GP, etc. 	<ul style="list-style-type: none"> ▪ Being started of capacity's improvement of human resources for procurement activities by standardized certification
Involvement of Other Actors	<ul style="list-style-type: none"> ▪ Encouraging of suppliers/contractors to consider environment on its process ▪ Awareness of public/citizen to environmental issue on government activities ▪ Problems in introducing GP at the beginning phase to public/private 	<ul style="list-style-type: none"> ▪ Recently, increasing of public awareness on environmental issue can be a support from GP implementation ▪ Limited suppliers/contractor in producing green goods/services and works
Process of (Green) Procurement	<ul style="list-style-type: none"> ▪ Combining of good governance and environmental consideration in procurement (Policy on GP) ▪ PWGSC as unit that responsible to all procurement activities ▪ There is an obligation to inclusion of environmental requirement on procurement process ▪ Have specific unit/organization to supervise/monitor the performance on green procurement : The Treasury Board Advisory Committee on Contracts & Interdepartmental committee on Performance Measurement ▪ Availability the list of green goods/services ▪ Relative good supports from other actors (industry/suppliers) to provided environmentally goods/services ▪ Sometimes has problem in evaluation especially at the beginning of GP implementation 	<ul style="list-style-type: none"> ▪ Still focus on good governance aspects and still lack of environmental consideration ▪ No specific institution that responsible for all procurement activities ▪ Has specific organization to supervise/audit procurement process (BPK, BPKP, Inspectorate) ▪ Not implement the obligation to include environmental criteria in procurement process (no GP guidelines), focus only to common procurement procedure ▪ Limited of green goods/services or works ▪ Increase of public supervision for procurement implementation

According to the Table 5.1, there are some aspects from Indonesia's condition has to be improved to prepare the implementation of green procurement. Political will and related regulations on green procurement is one of fundamental aspects that should be prepared towards green procurement implementation. Besides that, preparedness of government institutions' capacity towards green procurement implementation is important. Division of role and coordination among institutions to implement green procurement has to be clear like in Canada. According to Canada's condition, the challenge points as lessons for Indonesia are in the beginning phase of green procurement implementation. That phase will give some constraints for smoothness of green procurement such as problem in convincing benefits of green procurement and problem in evaluating of the results of green procurement. Those aspects should be considered for green procurement implementation in Indonesia. The next part will elaborate about possibility towards Indonesian green procurement.

5.2. Possibility Towards Indonesian Green Procurement

From the discussion in the previous part, Indonesia has different condition compared with Canada for implementing the green procurement. This is because, in general, green procurement in Indonesia is still not implemented yet. Existing condition of Indonesia has to be adjusted to implement the green procurement as well as Canada. Nevertheless, Indonesia has possibility to implement it because there are some aspects that can support to the implementation of green procurement and also there is demand for inclusion environmental aspects on certain activities in order to minimize environmental impacts. Focus of aspects that are important to be discussed here is referring to the explanation in Chapter 2 about pre-condition factors and some barriers/constraints to implement green procurement and comparison of it which was explained in previous part of this chapter.

Lessons from Canada experiences can be taken to help the forming of green procurement implementation. The first important lesson from Canada experiences is the strong will from government as the starting point into green procurement implementation to all government institutions. Other important lesson from Canada is coordination among government institutions to comply and apply that will in daily activities. In practices, the existence of the specific institution for specific functions in green procurement process such as the supervising institutions for all process is also important to develop and monitor the green procurement. Ability to encourage the supporting factors such as supports from suppliers/contractors to produce green goods/services or works and supports from professional staff/human resources will push the success of green procurement practices. Finally, evaluation and continuously improvement both in policy/regulations and practices are the repetitive actions that should be done for succeeding green procurement implementation.

Besides those important aspects above, Canada faced some challenges or crucial condition in implementation of green procurement. Crucial factor from Canada experience in green procurement practices should become an attention prior to be implemented in Indonesia. Some crucial factors in Canada experiences are related to constraints in the beginning phase about the introduction of green procurement; evaluation on implementation of environmental requirement on contract; and authority's division for broader autonomy. These aspects can be some constraints in developing green procurement and influence to the success of green procurement implementation. All of these aspects should be considered as lessons for possibility of green procurement implementation in Indonesia.

Possibility of Indonesia towards green procurement can be conducted by considering some aspects that can be some positive points to encourage its implementation and also some weaknesses that have to be improved by learning from experiences of advanced country (Canada). Referring to the pre-condition factors explained in previous part, there are some positive points that will encourage green procurement implementation in Indonesia which are the existing policies and regulations related to the environmental aspect; and increasing of public awareness/supervision from citizen or NGO to the environmental issue in government activities. Positive points are hoped can be starting points to support the implementation of green procurement in Indonesia. Besides that, there are some weak points that have to be improved such as no specific will and regulations on green procurement, no specific institution to supervise and responsible for procurement activities, lack of capable human resources, and limited supports of green goods/services and works resulted by suppliers/contractors. Table 5.2 shows some points influencing for the possibility of green procurement implementation in Indonesia.

Table 5.2
Positive and Weak Points for Possibilities Green Procurement Implementation in Indonesia

Positive points	Weak Points
<ul style="list-style-type: none"> ▪ The availability of some existing regulations/policies that will support actions to green procurement → Sustainable development policy, Eco-labeling, Improving of procurement transparency & other existing environmental regulations ▪ Emergence of public awareness and control/pressure on environmental aspects in government's activities 	<ul style="list-style-type: none"> ▪ There are government will/policies on environment but there is no specific regulation/will on the green procurement yet → no obligatory will & no experience on green procurement implementations ▪ No/lack of specific institutions to be responsible and to supervise procurement on environmental requirement aspect → organizational barriers ▪ Still lack of quality of capable human resources in procurement ▪ Limited supports from suppliers/contractors to produce environmentally goods/services/works

Although there are some weak points that can hamper the smoothness of green procurement implementation, strong political will and its actions can reduce those weaknesses and change them become positive point to support green procurement implementation. Because Indonesia has not implemented the green procurement yet, political will plus specific regulation on it is become the most important aspect/factor as one of pre-condition factors to implement the green procurement. This phase is crucial because, commonly, political will/regulations become weak factors in implementing certain process, especially for developing country which will start new certain actions (Bratasida and Johannson, 2005).

Integration of the political will and supporting regulations is important to develop green procurement implementation at the first phase. This condition quite similar with the starting point in Canada that will from government is the first and important factor to shape the green procurement practices. But the basic difference between Indonesia and Canada on political will/regulation aspect is the enforcement of that in practices. Similar to World Bank (2001) on procurement assessment report for Indonesia, Bratasida, et al (2005) said that law enforcement in Indonesia is inadequate in almost every aspect, and, this circumstance will become a challenge for Indonesia in implementing green procurement. So, the needs to increase capacity of supervising institutions in procurement practices become an important factor.

Some other conditions describing the weak points in Indonesian procurement need to be analyzed. Lack of professional human resources on procurement can be a factor that impedes the success of green procurement implementation. Ability to understand the common procurement process and understanding of environmental aspect that should be included in procurement process needs capable/professional staffs who are involved in. Generally this condition in Indonesia is quite different with in Canada that, commonly, basic capability of staff in Canada is quite enough to support good procurement process and Government of Canada encourages them continuously to improve their understanding to the green procurement. Other weak point in Indonesia is the supports from supplier/contractor producing green product/works that it can be a barrier in green procurement implementation. Development of environmentally friendly products is still not optimal which is marked by the limited list of green product/services and low awareness of industries/contractors to fulfill the environmental standards for producing goods/services/works (Ministry of Environment, 2006; Bratasida et al, 2005).

From those explanations, it is clear that a basic starting point of Indonesia and Canada condition to implement green procurement is quite different. A few of Canada's pre condition factors for implementing green procurement is more advanced than those in Indonesia. For example, the integrated policy, institutional capacity and human resources capacity in Canada are mature enough to implement green procurement as one of instruments to achieve sustainable development objective. On the other side, most of Indonesia's pre-condition needs more development in order to support the possibility of green procurement implementation. These differences on pre-condition factors as supporting basis for the possibility of green procurement implementation should be perceived as consideration to how far Indonesian condition have to be improved to implement it. It means that some positive points and weak points can be a consideration to start the green procurement in Indonesia. Table 5.3 briefly describes some aspects whether it has been good or still need improvement. Also it has to be noted that challenges faced by Indonesia is not fully same with Canada, so considering the local condition is important for implementing green procurement.

Table 5.3
General Assessment on Pre-Condition Factors for Possibility Green Procurement Implementation in Indonesia

Pre-condition Factors and Its Assessment				
Policy/Regulations	Institutional	Human Resources	Involvement Other Actors	Process
<ul style="list-style-type: none"> ▪ Existing of environmental policy/regulation (+) ▪ Integration of policy/regulation (+/-) ▪ Specific Regulation/Guidelines on green procurement (-) 	<ul style="list-style-type: none"> ▪ Specific institution with specific function (-) ▪ Capacity of existing institutions in procurement (-) 	<ul style="list-style-type: none"> ▪ Capability (-) ▪ Effort to improve capacity (+) 	<ul style="list-style-type: none"> ▪ Awareness of supplier/Industries on environment (-) ▪ Supports to produce green products/services/works (+/-) ▪ People awareness & control on environmental aspects (+/-) 	<ul style="list-style-type: none"> ▪ Practices on existing procurement (-) ▪ Inclusion of environmental aspects on procurement (-) ▪ Law enforcement in implementing of procurement (-)

Source: Analysis

Note: (+) : available and quite good; (+/-): available but not good/limited; (-) : not exist/poor condition

According to the previous explanation, green procurement implementation in Indonesia is still possible but needs time to make it in line with the sustainable development goal. Lessons from other advanced countries such as Canada become a

good consideration to be taken for implementing it in Indonesia. It should be noted that Canada has started the simple green procurement program since 1988 when the Environmental Choice Program (ECP) was formally issued for the first time (Environment Canada, 2000 in Legault 2000). That description shows that established implementation of green procurement needs time and has to be improved continuously.

Development of green procurement implementation in Indonesia is not impossible to be created. Appropriate strategy considering the assessment of pre-conditions is a way to get good green procurement implementation. Explanation of strategic recommendation and conclusion will be elaborated in next chapter of this research. The important thing from analysis part of this research is that Indonesia should begin to conduct green procurement for supporting Indonesia's awareness on environmental development and achieve the sustainable development as the main goal.

5.3. Example of Green Procurement Implementation for Road Infrastructure Development

This part tries to give short example of implementation of green procurement on a road development project. Road development has important role in developing certain area and give significant impact both positive and negative to the environment (Cuperus et al, 2004, and Ell, 2005). This example refers to the theory (see Chapter 2 part 2.2), especially about relationship of EIA that give some inputs as environmental criteria for green procurement process. This is showing the connection of EIA and green procurement

Referring to the explanation in Chapter 2, environmental criteria are needed for green procurement process. Those criteria are needed for technical specification which is stated in tender document and also in contract document as contract clauses. The needs to determine environmental criteria are impossible to be conducted during the procurement process that has limited time to finish all process. Because of that constraint, the result of EIA which is stated in EIS/EMP is needed as inputs for determining environmental criteria in green procurement process. For road development project, EIA procedure is needed to know how significant and what potential impact that will be emerged both in pre-constructions, construction, and after construction phase. The result of this process is the decision whether the project is continued or not. It is assumed that the road is approved to be continued, so that the result of EIA study or EIS (or called as EMP in Indonesia) will be useful to give inputs of environmental criteria for green procurement process (see figure 2.2 and 2.3 in Chapter 2).

The results on EIS/EMP at least consist of potential impacts and its source, indicator/parameter for impact measurement, alternatives of environmental management (remedial measures), environmental management period, etc. Regarding to the inputs for green procurement, the results of parameter for measurement and type of remedial measures becomes some criteria which is needed for technical specification which is stated in tender document and written in contract document as contract clause in procurement of road project. For example, some results in EIA as inputs for environmental criteria are the usage of environmentally friendly road material to minimize air pollution; the needs of green equipments, etc. Those environmental criteria from EIS/EMP are incorporated as *quality* criteria for selecting some contractors/bidder. After that, the green procurement procedure is conducted in accordance with the procedure (see in Figure 2.1 in Chapter 2) to get the best

contractor that will conduct the road project. Illustration of implementation of green procurement for a road project is shown in Figure 5. 1

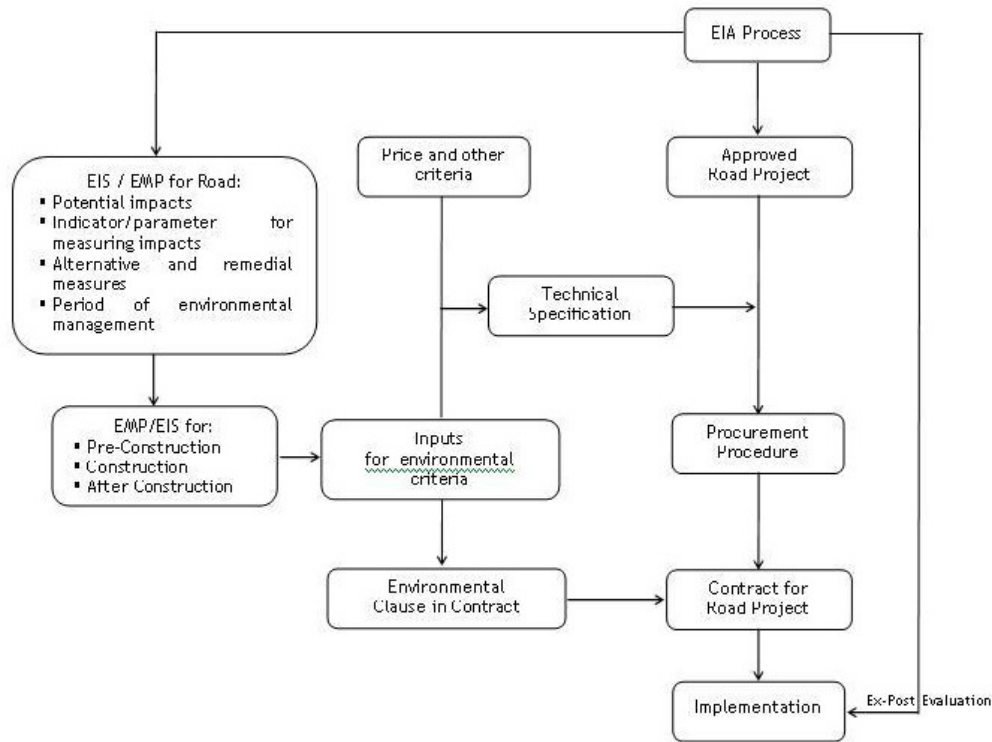


Figure 5.1
Process of Green Procurement for Road Development Project

Chapter 6

Conclusion and Recommendation

This chapter is a final part of the research discussed about possibility of green procurement implementation in Indonesia which considers the Indonesian condition and lessons from experienced country, Canada. This chapter will conclude the explanation from previous chapters and try to give some recommendations regard to the green procurement implementation in Indonesia. First part of this chapter is the conclusion and finally it is closed by the recommendations part.

6.1. Conclusion

This part will conclude the discussion from previous chapters especially analysis part in Chapter 5 and this part will also be related to the research questions stated in Chapter 1. This conclusion will answer research questions especially supporting research questions and answers of main research question will be elaborated more in recommendations part. Supporting research questions consist of: what are the main pre-condition factors to develop good green procurement implementation; how the green procurement concept is implemented in Canada; and is there the possibility to implement the green procurement in Indonesia and what lessons can be learned from Canada experiences. The following description will give the conclusion about it.

➤ *The core elements of pre-condition to develop good green procurement implementation*

Based on green procurement experiences of Canada and Indonesian condition in procurement, there are important aspects to develop the green procurement implementation. Referring to the green procurement implementation, there are *main pre-condition factors to develop green procurement* which are *political will(policy) and regulations, institutional capacity, human resources capacity, and supports from other actors* (public and private). Those pre-condition factors have to be considered in the process of green procurement development before it will be implemented.

Political will and regulations can be mentioned as the most important pre-condition factor to develop green procurement for the country which will implement the green procurement at the first time. Political will/regulations on green procurement influence other pre-condition factors and also influence to the success of green procurement implementation because this factor becomes *a starting point to develop green procurement*.

Other pre-condition factors are also important to support the political will/policy and regulation in its implementation. Capacity of institution in conducting the green procurement has to support the political will and regulations on green procurement through its realization in decision making of procurement which have to consider environmental aspects. Clear role of each institution in green procurement and also coordination among them are a key point to implement green procurement in practical level. The next pre-condition factor in green procurement is human resources capacity. This factor helps in practical implementation where the professional staff who have enough knowledge not only in technical knowledge in procurement but also in environmental consideration to conduct the procurement process. Another pre-condition factor is supports from other actors outside of the government which consist

of private actors (such as suppliers/contractors) and public (people or NGO). Private sectors have to be encouraged to support the green procurement implementation through providing green goods/services and also works that consider environmental aspect/requirement on it. Supervision from public is needed to pressure how far environmental aspects are included in procurement activities and how far procurement process which is conducted by government fits with the environmental requirement. Those pre-condition factors will be useful to develop green procurement implementation.

➤ *Green procurement implementation in Canada*

From the Canada experiences, the most important pre-condition factor in developing green procurement is *political will as a core or a starting point* to implement the green procurement. This policy has to be supported by related regulations. Specific policies/regulations are built for green procurement activities and this policy and regulation bind all government institutions in Canada in conducting the green procurement. Integration of green procurement policy and sustainable development goal describes that green procurement implementation has an important role in Canada. In the Canadian procurement policy, it is stated clearly that the context of this policy is related to sustainable development and also stated about the clear roles/responsibilities among the institutions involved in the process. It means that the institutional capacity is important to translate that policy into practices.

Referring to institutional aspect in green procurement, Government of Canada also established PWGSC as a leader/specific institution in procurement implementation that has role to provide plans, guidance/tools, and to determine performance indicator of green procurement implementation in all government institutions. In order to make good coordination and cooperation among them, the *Inter-departmental Committee on Performance Measurement for Sustainable Government Operation* has been built. Even, in Canada, to ensure that policy is well implemented and can achieve the goals/target, Government of Canada has established specific institutions or commission which is named as the *Commissioner of the Environment and Sustainable Development* as a part of Audit Board of Canada. Following condition to support green procurement is involvement other actors especially suppliers/contractors (private sector) which support by producing green goods/services/works. Government encourages that private sector to support green procurement implementation through some programs such as certification of greener product, for example Environmental Choice Program, etc. In the procedure of procurement, environmental requirements are included in that process such as in technical requirement (specification) and also in all type of contract award.

Even though the development of green procurement in Canada can be mentioned as one of good examples in its implementation (Aitken, 2005), Canada has faced some constraints during the development of procurement. Introduction phase in green procurement implementation is crucial part because definition of green products/services and works was not understandable for every party. Besides, mis-interpretation of green procurement that it was viewed more costly than the existing procurement becomes one constraint to start the green procurement implementation. Another constraint is related to list of green goods/services which show the limited goods/services requiring of environmental standard. All of these constraints are become crucial lesson in developing of green procurement. According to the pre-condition factors and the constraints faced by Canada, the lessons is that green procurement in Canada needs time to be established.

➤ *Lessons from Canada experiences and possibility green procurement implementation in Indonesia*

From previous chapters, Canada can be viewed as an experienced country in implementing green procurement. Experiences from Canada in green procurement can be taken as a good example for Indonesia which has no experience in green procurement. The important lesson from Canada is the integration of policy on green procurement and related regulations which are supported by good institutional aspects and professional/capable staff. It shows that from policy level until practical level (for example is the availability of guidance), green procurement in Canada can be conducted clearly and it is monitored through the performance assessment on green procurement implementation which is done by every government institution. Another lesson is about the establishment of specific government institution (PWGSC) as a leader institution that responsible to ensure the procurement activities conducted by all government institutions fits with the *greening government policy* to achieve broader goal in sustainable development.

Indonesia which has no experience in green procurement implementation has possibility to take the lessons and adopt the lesson from Canada with consideration for Indonesian context. From the analysis explained in Chapter 5, green procurement in Indonesia is possible to be implemented with some consideration through the pre-condition factors on green procurement implementation. According to the pre-condition factors and the constraints, there are some positive points and weak points in Indonesia condition to carry out the green procurement which has been explained in analysis part of previous chapter (see Table 5.3 and Table 5.4). Positive points such as the availability of existing will and regulations about environment; and increasing of public environmental awareness and their pressure to government activities including procurement, etc become a starting point to help in achieving green procurement implementation. On the other side, government also realized that environmental aspect is important to be considered in all government activities including procurement process because this is involved a huge amount of money in procuring goods/services and especially for infrastructure works that can give significant impacts to the environment.

Green procurement implementation in Indonesia is possible to be done but it is not an easy task because besides the positive points, there are some weak points that have to be changed such as no specific policy and institution that responsible for whole green procurement activities; lack of capable human resources; lack of support from suppliers/contractors who produce green products/services and works. Current condition of Indonesian procurement shows that there is no specific policy (political will) and regulations about green procurement in Indonesia whereas this will is the most important things *as a starting point* to conduct the green procurement. Taking the lesson from Canada experience, the presence of political will and regulations/guidance on green procurement will help in changing the current procurement practice to be more environmentally sound.

In short, green procurement in Indonesia is not impossible to be implemented but needs more time to make it established. The most important thing is *changing the weak points become positive points*. It is not easy to achieve the good green procurement implementation, mainly, if the political will/regulations including other pre-conditions factors are not supporting this action. It is important to know that green procurement cannot automatically minimize environmental impacts or achieve sustainable development objectives but green procurement may helps to achieve that

together with other existing environmental regulations/instruments. Appropriate strategy to change those weak points and enhance the green procurement implementation is needed. The appropriate strategy as recommendations considering lessons from Canada will be explained in recommendations part (see sub chapter 6.2).

6.2. Recommendations

In the last part of this research, recommendations are made based on the main research questions about *how to implement green procurement concept in the context of Indonesia* and based on analysis of research stated in chapter 5. The recommendations will try to answer the main research question and will be followed by the consideration of consequences if those recommendations will be implemented in Indonesia. The following part will describe some recommendations based on the pre-condition factors explained in previous chapters of this research.

1. *Developing Political Will (Policy) and Regulations on Green Procurement*

Based on analysis in previous chapter, political will and related regulations/guidance are important in developing green procurement and they become starting points to encourage green procurement implementation. Regarding to political will (policy) and regulations aspects, currently, Indonesia has no specific will or regulation on green procurement but there are some existing environmental regulations which can support to green procurement development in Indonesia. Green procurement in Indonesia is not viewed yet as an important environmental instrument that may helps in the framework of minimizing environmental impacts. This condition is more caused by no experiences in green procurement. Experiences from Canada can be taken as a lesson that *Greening Government Operation Policy* and *Policy on Green Procurement* was issued to develop green procurement implementation (PWGSC, 2006). Those policies/regulations are obligatory to be implemented in every Canadian government institutions. Government of Canada develops this through the consciousness that policy is the most important factor to encourage green procurement implementation and it is realized that the presence of policy on green procurement help to build following regulations/guidance needed in practical level.

Related to Indonesia condition, *political will (policy) should be prioritized* in developing green procurement. The establishment of political will (like in Canada, it can be mentioned as *Indonesian Policy on Green Procurement*) in green procurement will enhance to the change of existing procurement practices in Indonesia to be more environmentally soundly considerations. The policy should be clear in content, easy to understand by all stakeholders and bind all government institutions to implement it (Faith-Ell, 2005). The policy and also related regulations are *better to be legalized* so that the policy has power in its implementation especially in decision making process. If this recommendation will be implemented, it should consider other existing policy/regulations to support this recommendation.

Generally the content of *policy on green procurement for Indonesia* comprise of the context of policy, strict statement of government commitment in environment and green procurement; responsibilities and clear role of all government (institutions); general target and other achievement (both short, medium and long term target) in green procurement implementation. This policy should be supported and be integrated with some regulations and guidance in green procurement practices and also be integrated with other existing policy/regulations. Implication to this recommendation is the needs to review some exiting regulations and also guidance regarding to procurement practices. For example, some parts of existing procurement regulations

in Presidential Decree No.80/2003 should be reviewed if green procurement will be implemented such as in article 3 about principles of procurement and also article 4 about general policies on procurement by added environmental consideration criteria in procurement process/procedure. It is also useful to propose some enforcement that environmental consideration/criteria have to put in tender document and also in contract document to tie up contractors/suppliers to conduct environmental requirement in implementing the projects. Another way is not reviewing existing regulations but through the issuing some complementary regulations/guidance for green procurement practices.

In short, for green procurement implementation in Indonesia, there are at least two recommendations related to the political will/regulations aspect which are: (i) preparing the policy on procurement that tied up all stakeholders especially for government institution, and; (ii) reviewing some existing procurement regulations or adding the complementary regulations/guidance on green procurement. Those policies/regulations/guidance on green procurement have to be integrated with other related policies/regulations/guidance such as EIA regulations, Environmental Act, etc. Through the policies/regulations on green procurement and also other related policies/regulations, it may help the objective of Government of Indonesia minimize environmental impacts in the frame work of sustainable development.

2. *Improving Institutional Capacity*

Institutional capacity is another important pre-condition factor in developing green procurement especially for a country that has no experience on it. Based on previous chapters, capacity of government institution in Indonesia for existing procurement practice is not good (World Bank, 2001). One of weaknesses related the capability of government institutions in Indonesia is in controlling and monitoring aspect. It has been explained that unlike in Canada, there is no specific institution in Indonesia that responsible for all procurement activities. Besides, the environmental awareness/culture of that institution in procurement practices is not shaped yet but this can be perceived because of no experiences and also no specific guidance to conduct green procurement.

Regarding to the significant role of institution as one of pre-condition factors in developing green procurement, improving the capacity of government institutions is important. Improving the capacity is not only means building new institutions but also building its culture and awareness on environment in daily practice. Because green procurement is not implemented yet in Indonesia, *the presence of specific institution in procurement affairs is needed*. Lesson from Canada that at the beginning phase of green procurement implementation, there is no specific institution on it but finally Canada established PWGSC as an institution that responsible in procurement affairs except in auditing task as a part of Audit General Board (PWGSC, 2006; Legault, 2000). PWGSC is part of executive and has role to provide regulations/guidance, develop tools, and develop green procurement performance indicator for every department in Canada. The presence of specific institution in (green) procurement affairs in Indonesia will enhance the implementation of green procurement because this institution should become a trigger for better procurement practice especially for environmentally friendly procurement. This specific institution has role as regulator, facilitator and also internal control for procurement practices. Establishment of plans and priorities in procurement strategy included its performance measurement and also to release some standards, tools, guidance on green procurement, etc are part of role of this institution. According to establishment of

specific institution in procurement, World Bank (2001) through its assessment report for Indonesia, has suggested to build specific institutions namely *National Public Procurement Office* (NPPO) but until now, that institution has not been built. So, it recommended to establish a specific institution for procurement affairs in Indonesia to enhance green procurement implementation.

Other recommendation for Indonesia regards to this pre-condition factor is to improve the role and capacity of existing government institutions such as Ministry of Environment or other environmental bodies/agencies for green procurement implementation. Related to the controlling and monitoring, actually in Indonesia, there are supervision boards both internal (BPKP and Inspectorate) and external (BPK/Audit Board) for supervising procurement practices. Performance of these audit boards should be strengthened in supervising procurement practices. Improvement of their performance in procurement practices is not only audit economic aspects but also environmental aspect as the major points in green procurement. Other important recommendation in this part is to change the culture and competences of government institutions who conduct the procurement to be more aware on environmental aspects in their procurement activities. This is in line with the study done by Faith-Ell (2005) that one of important key factors in green procurement is good institutional capacity.

From those explanations, improving of institutional capacity is important for Indonesian context because current condition shows the weaknesses of some government institutions in their capacity in procuring activities. It should be considered that capacity improvement of government institution is not easy but should be done continuously and in the regulations, it should be stated clearly about the target of this achievement. It also should be clear enough about role of each involved institution in green procurement implementation. In short, these recommendations are needed in framework of improving institutional capacity for green procurement implementation in Indonesia.

3. Increasing human resources capabilities

The success of green procurement implementation is influenced by support from professional/capable human resources. Because this study more focuses on the public procurement, capability of government employee/staff who involved in the procurement process has to be improved continuously. Previous chapters have explained that capability of human resources who involved in procurement activities begin to be standardized through certification of procurement competences standard for government staff in Indonesia. That certificate of competences on procurement is obligatory and at least until 2008, all of members/staffs in procuring committee have to get that certification (Bappenas, 2003). This effort becomes a positive point to support the green procurement implementation in Indonesia although at the present there is lack of capable staff on procurement practices as stated in report assessment on procurement practices in Indonesia by World Bank (2001). This condition describes that capacity building and human resources is needed to improve the quality of procurement process.

Lesson from Canada that can be taken regarding to human resources aspect is that Canada has developed effective training programs to increase the capability of their government employee not only in procurement but also in increasing their awareness to environmental aspect. It means that not only technical knowledge on procurement but also changing their culture to be aware on the importance of environmental aspect (Environment Canada, 2000). Government of Canada

mentioned this effort as a step in encouraging employees to take their responsibility for their procurement decisions (Environment Canada, 2000).

Regarding to that, Indonesia also take similar effort to increase capability of human resources on procurement through training and certification on procurement knowledge for staff who eligible in that training. The training conducted in Indonesia focus on the technical ability on procurement process but there is no or less course on environmental aspects (Bappenas, 2006; UI, 2007). According to this condition, training for staff in procurement should add the course subject about environmental consideration that will be useful for procurement process (technical specification and evaluation for green), such as knowledge on EIA, eco-label, ISO 14000, etc. Because the program of competence certification in procurement has just been started in Indonesia (around year 2005), there is still needed training program to improve capability of staff for procurement practice. The presence of specific training centre for procurement aspect may be needed and can be considered to be built and this center has role to facilitate the improvement human resources capability on green procurement. And of course, this program to improve the staff's capabilities should be conducted continuously.

4. *Supports from other actors*

Supports from other actors beyond the government institution will help to the success of green procurement implementation. Other actors here consist of private (industries/suppliers/contractors) and public (citizen and NGO). According to Indonesian condition, private sector has low awareness on environmental aspect. Related to the procurement, the private sectors who produce green products/services/ and works is still limited. For example, there is still limited list of green products/services produced by suppliers in Indonesia. Furthermore, because green procurement is not implemented yet, there is no obligation to include the environmental requirement in contract for procuring goods/services or works, so that, the implementation of project still less attention to fulfill environmental requirement stated in contract document.

According to that condition, government of Indonesia is recommended to encourage the private sector to produce green goods/services that will be useful for supporting the project such as infrastructure development that can use goods/materials which have low environmental impacts. Other recommendation is taking the lesson from Canada that issued the environmental certification for industries/suppliers/contractors who will follow the procurement process. And the important things is *put the environmental requirement in contract document* for certain project. This is the way that the suppliers/contractors is obliged to follow and conduct all environmental requirement stated in contracts because contract document has legal power and 'enforce' them to comply with it.

Supports from public tend to the indirect involvement in green procurement process. It means that public is not involved directly from process between government and private sector (suppliers/contractors) until contract of project is signed but tends to monitor/supervise how far that process and its implementation in line with the policy and regulations especially related to the environmental aspects. It can be a pressure for government to consider environmental aspect in every policies/development including green procurement process. From this aspect, it is recommended that public is directed to help government in supervising how far the environmental requirement is implemented by the suppliers/contractors who conduct the project. From government side, information about the objectives and targets on

procurement activities including in the environmental aspect has to be well informed to the public, so that public can help government in supervising green procurement implementation. Involvement of public in supervising green procurement activities will be useful in achieving the objective of environmental impacts reduction.

5. *Improving procurement process*

Green procurement does not seek to re-write the book on existing procurement process but merely to *add an environmental dimension or criteria* besides the price criteria (Kunzlik, 2003; Brison, 2006). Current procurement process in Indonesia is not green procurement because it is not implemented yet. Regarding to that, procurement process in Indonesia should consider to put environmental criteria in some part of that process.

Put environmental requirement as technical specification in tender document and contract document is important because the former will help (as standard criteria) in selecting the suppliers/contractors and the latter will be useful as parameter to measure and control the environmental requirement which is conducted by the winner (selected suppliers/contractors). In Canada, the environmental requirement has been put in their green procurement process as standard criteria for selecting the tenderers and put environmental performance parameters in contract document (PWGSC, 2006). For infrastructure project, content of contract document is very crucial and important to control and measure environmental performance of contractor in conducting the project. In the process of announcement of contract award in Canada, the most advantageous term (not only price consideration but also quality (environmental) consideration) is used more than the lowest price criteria (PWGSC, 2006; Legault, 2000).

According to Indonesia conditions and lesson from Canada, the inclusion of environmental requirement in technical specification and put it in tender document and also in contract document is important to improve the procurement process in Indonesia. This inclusion should be supported by the legal aspect such as stated on procurement regulation and guidance in order to tie up the actors who involved in the procurement process. It will ensure that environmental consideration is used in the procurement process and it can be a pressure for all parties who involved in procurement process to give their commitment/promise to conduct the project which consider the environmental requirement.

From explanation above, there are some recommendations that adopt and take some lessons from Canada to be implemented in Indonesia with some consequences such as the needs of regulation review, the needs of specific institution on procurement, etc. Developing political will and related regulations on green procurement can be placed *as the first pre-condition factors to be developed* in implementing green procurement in Indonesia. It can encourage other pre-condition factors such as development of institutions, human resources and supports from other stakeholders and specific aspects on procurement process, to be emerged in development of green procurement in Indonesia. Development of pre-condition factors in line with the recommendations which stated above is expected to change the current procurement condition in Indonesia to be more environmentally soundly procurement in practice.

Green procurement is expected to support Government of Indonesia to achieve some of sustainable development objective such as in minimizing of environmental impacts. But there is an important note that implementation or adoption of green

procurement does not automatically give benefit in minimizing environmental impacts but together with other environmental policy instruments, it can complement each other to achieve the environmental objectives in Indonesia.

Finally, according to all chapters of this research, pre-condition factors to develop green procurement are important, especially for a country which has no experience in green procurement implementation such as Indonesia. This research has explored the pre-condition factors which are needed in developing green procurement and also has showed that how Canada develop green procurement to support their goal in sustainable development. This research also explores how pre-condition factors of green procurement should be developed in Indonesia which has no experience on it.

It is realized that there are some limitations in conducting this research such as in data collection (only literature review) and time limitation, so that the result of this research is not optimum yet to answer the whole aspects of green procurement. It needs further research with different view to get the comprehensive analysis about green procurement such as how to develop standard criteria to evaluate the success of green procurement in certain aspect; how is the form of public participation in green procurement, etc. Further research is expected to complete and enrich the green procurement study and it can be useful for many parties especially for developing country like Indonesia that left behind in green procurement implementation.

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