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Public participation provisions in Environmental Impact Assessment (EIA) legal system

Case studies in China, India and Indonesia



Master Thesis by Jin Chen

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**The public participation provisions in Environmental Impact Assessment (EIA) system-
Case studies in China, India and Indonesia**

A Thesis submitted to the Faculty of Geosciences for the Degree of Master of Science in
Sustainable Development

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Preface

This research as an intern project provided by the Netherlands Commission for Environmental Assessment (NCEA) has been carried out for seven months. The NCEA is an independent expert body that provides advisory services for government agencies responsible for environmental assessments. The institute is located in Utrecht, the Netherlands. The mission of the NCEA is to “*assist environment and sector ministries, environmental assessment professionals and non-governmental organizations to achieve better environmental assessment practice*”,¹ which aims to help developing countries achieve better environment, better governance and less poverty in order to achieve sustainable development. Since its foundation in 1987, the NCEA has conducted the SEA and EIA research in many developing countries from different regions in the world, including African, Asian, Central American, South American, and North American regions. The key characteristics of EIA and SEA systems of a specific country have been identified, covering information about EIA and SEA legal framework, institutional setting, procedure, and legal recourse etc. In this way, public participation system within EIA has also been studied. So far, the NCEA has provided a large database about the overview of public participation provisions of EIA legislation in all the developing countries with which the NECA cooperates.

According to the request of the NCEA, in this research, the database regarding EIA public participation provisions of 36 developing countries has been analyzed. In addition, under the support of the NCEA, three developing countries (i.e. China, India and Indonesia) have been given in-depth research on their EIA public participation systems. The research results aims to not only develop an analytical framework which can be widely applied to analyze EIA public participation provisions of a country, but also provide a valuable reference for other developing countries.

¹ NCEA , 2013. *About us*. Available at: < <http://www.eia.nl/en/about-us>> [Accessed 26 October 2013].

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Summary

Public participation has become a legal component of EIA system. There are various public participation provisions in EIA-related legislation, laws, regulations and guidelines. These public participation provisions have experienced different development stages in different countries and their developments have been influenced by various factors. In many developing countries, there are still some unclear public participation provisions in their own EIA legislation and these vague provisions have influenced the implementation of public participation in the EIA process. Hence, this research firstly aims to develop a comprehensive analytical framework for classifying and characterizing public participation provisions in EIA legislation and this framework can be widely used to analyze the public participation provisions of a country. The second objective of this research is to identify the factors influencing the development of EIA public participation provisions in developing countries.

The analytical framework is developed by desk research. Through desk research the general description on EIA public participation provisions is given, and the categories and indicators used to classify and characterize public participation provisions are also identified by literature review. As a result, a general analytical framework for classifying and characterizing public participation provisions in EIA legislation is drawn. Five categories are used and they are “The stimulation of public participation”, “Transparency to the public”, “The level of communication”, “Fairness and representativeness”, and “The degree of influence on decision-making”. Under each category, different indicators are used to measure the EIA public participation provisions, such as information accessibility, information dissemination, timeline for the public to make comments, the form of public comments, types of the public involved, the starting time of public participation, response to public comments in decision-making, and the right to appeal on final EIA decisions. This framework has been applied to analyze the EIA public participation provisions in 36 developing countries and the results have shown that many public participation provisions are still unclear or missing in EIA legislation in these developing countries and thus the provisions need to be further improved to made clearer and more comprehensive, combined with the country-specific situation.

The factors which influence the development of EIA public participation provisions have been identified through case study. In this research, the case study is carried out in the three developing countries (i.e. China, India and Indonesia). By applying the analytical framework, it can be found that during past decades, the information transparency to the public, the level of communication among EIA stakeholders, and the degree of influence of public comments in decision-making have been enhanced in the three countries. These developments are influenced by various factors, like political factors (e.g. political will, power distribution among EIA actors, the reform of political regime), economic factors (e.g. financial support for public participation, the level of economic development), cultural factors (e.g. social culture, political culture), social factors (e.g. the requirement of international organizations), and other factors such as the skills of the public, competent authorities' capacities, competent authorities' attitudes, public pressure, environmental factor etc. Among these factors, some factors like political factors and culture factors have large influence on the development of EIA public

participation provisions while the influence of some factors is relatively small.

In the three countries, currently the provisions for public participation in EIA legislation have been considered clear and comprehensive, to a large extent. However, in practice the implementation of these provisions is considered tokenism and thus the procedural effectiveness is low. Some implementation barriers are such as the negative attitudes of government officials, weak public environmental awareness, weak supervision and penalty mechanism, bribery and corruption issues, political intervention, and poor economic conditions etc. The corresponding suggested improvements have been respectively provided for China, India and Indonesia. Overall, at present, for the developing countries, their public participation provisions in EIA legislation need to be further improved to develop a specific approach fit for the country-specific situation, but most importantly, the governments should effectively implement public participation provisions and avoid the tokenism, in order to ensure true and meaningful public participation in the EIA process.

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Abbreviations

ADB	Asia Development Bank
AMDAL	Analisis Mengenai Dampak Lingkungan (Environmental Impact Assessment)
ANDAL	Analisis Dampak Lingkungan (Environmental Impact Analysis)
BAPEDAL	Badan Pengendalian Lingkungan (Environmental Impact Management Agency)
CSO	Civil Society Organization
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EIR	Environmental Impact Report
EMP	Environmental Management Plan
EMoP	Environmental Monitoring Plan
EPL	Environmental Protection Law
EPA	Environmental Protection Act
EC	Environmental Clearance
EAC	Expert Appraisal Committee
ELAW	Environmental Law Alliance Worldwide
GDP	Gross Domestic Product
IAA	The Impact Assessment Agency
IAIA	International Association for Impact Assessment
IMF	International Monetary Fund
MEP	Ministry of Environmental Protection
MoEF	Ministry of Environment and Forest
MoE	Ministry of Environment
NCEA	Netherlands Commission for Environmental Assessment
NGO	Non-Governmental Organization
SPCB	State Pollution Control Board
ToR	Terms of Reference
UTPCC	Union Territory Pollution Control Committee
WB	World Bank

1 Introduction

1.1 Environmental Impact Assessment (EIA) Legislation

It is widely recognized that there remains a negative relationship between economic development and environmental protection and this relationship has hindered sustainable development. As a result, decision-makers usually face significant challenges when trying to balance this two. In order to mediate between continuous economic growth and environmental protection, Environmental Impact Assessment (EIA) as a decision tool was formally developed as a part of the National Environmental Policy Act (NEPA) which was adopted in 1969 in the United States (El-Fadl et al., 2004). The International Association for Impact Assessment (IAIA) defines EIA as "*the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made*" (IAIA, 1999). EIA has been applied to help decision-makers identify and evaluate the potential environmental impacts of certain proposed development actions (Cashmore et al., 2004). Nowadays, many countries including developed and developing countries have enacted EIA legislation and adopted relevant provisions for implementing EIA to scrutinize potential environmental consequences of development projects. EIA legislation can be defined as all EIA-related policies, laws, regulations and guidelines approved by competent authorities (e.g. legislative or executive institutions) (Kolhoff et al., 2013). The EIA legislations are crucial tools for sustainable development.

EIA legislations are diverse in different countries. This diversity is also shown in European Union (EU) member states. Although the EU EIA Directive imposes obligations on EU Member States, within Member States, governments have the right to produce own legislations which not only comply with the provisions of the EU Directive, but also produce more stringent rules within their own borders. Hence, EIA legislation can be varied in different EU member states (Bond and Wathern, 1999). For example, the EIA directive is implemented in the UK through a number of EIA regulations such as the Town and Country Planning (Environmental Impact Assessment) Regulations (Legislation.gov.uk, 2013). In Ireland, the EIA Directive is implemented by other different legislations such as the Planning and Development Acts, the Planning and Development Regulations 2001 to 2002, and the European Communities (Environmental Impact Assessment) Regulations 1989-2000 (Citizens Information, 2010). In Finland, EIA legislations are like Act (468/1994) and Decree (713/2006) on Environmental Impact Assessment Procedure, Act on the Assessment of the Effects of Certain Plans and Programmes on the Environment (200/2005). These legislations have been drafted in accordance with the relevant EU directives (Ymparisto.fi, 2013). The diversity of EIA legislations is not only illustrated in EU member states, but also seen in other non-EU member states like Canada or the USA or developing countries. For instance, the Canadian Environmental Assessment Act 2012 (CEAA2012) has established the legislative basis for the federal environmental assessment process (Canadian Environmental Assessment Agency, 2013). Thus, each country has own EIA legislation.

Many EIA legislations have experienced gradual developments through continuous modifications. For example, an important EU legislation regarding the environmental assessment is the Council Directive on the assessment of the effects of certain public and private projects on the environment (85/337/EEC) which was adopted by the European Union in 1985. The directive was amended in 1997 (97/11/EC) and revised again in 2003 (2003/35/EC), and once more in 2009 (2009/31/EC). The directive is known as the EU EIA Directive (Bond and Wathern, 1999). The EIA directive outlines which project categories shall be made subject to an EIA, which procedure shall be followed and the content of the assessment (European Commission, 2013). In addition, The Town and Country Planning Regulations in the UK have been amended several times and a new statutory instrument is "The Town and Country Planning (Environmental Impact Assessment) Regulations 2010" which aims to consolidate the former EIA regulations and the subsequent amendments (Legislation.gov.uk, 2013). Also in Finland the EIA legislation has been gradually improved and the new legislation not only includes the same general provisions applied in the earlier legislation, but also specifies the content requirements and assessment procedures (Ymparisto.fi, 2013).

Kolhoff et al. (2013) have developed an analytical framework for characterizing and classifying the development of EIA legislation. They use 11 indicators in the framework and these indicators have been clustered into three categories: object of study, quality of information for decision-making and accountability of decision-making. Category "object of study" is determined by four indicators: aspects studied in EIA, type of decisions subject to EIA, type of investor of the project subject to EIA, and requirements studied in EIA influencing expected impacts of the project. Category "quality of information for decision-making" is about the quality mechanism to ensure that information presented in the EIA report is valid, relevant and timely, which is reflected by three indicators: the quality of the scoping process and consultants, the quality of reviewing process, and timely start of EIA procedure. Category "accountability of decision-making" is about the extent to which civil society gains the opportunity to take part in the EIA process, which is decided by four indicators: type of stakeholders involved, access to information by civil society, government responsiveness, and access to justice (Kolhoff et al., 2013). The development of EIA legislation can be reflected through using above indicators. In the previous studies, for instance, according to the studies of Cherp (2001) and Cherp and Antypas (2003), social, political, economic, and cultural contexts are important factors which influence the development of EIA legislation. In addition, Kolhoff et al. (2009) also have claimed that the development of EIA legislation can be influenced by the capacities of key actors and context factors such as political or administrative system, economic situation, culture of participation and state of the environment.

1.2 Public Participation Provisions in EIA Legislation

Public participation as a fundamental component of the EIA process was first introduced in the US National Environmental Policy Act 1969 (NEPA) (Petts, 2003). Since then, several international conferences have gradually highlighted the importance of public participation for environmental decision-making in the EIA process (e.g. the United Nations 1992 Rio

Conference, the 1998 Aarhus Convention). For instance, the importance of public participation in environmental decision-making have been emphasized by the Aarhus Convention on some aspects like access to information and access to justice in environmental matters (Hartley and Wood, 2005). There is widespread agreement in the EIA literature that public participation is important for EIA. For example, Wende (2002) concludes that early participation of stakeholders in the EIA scoping stage is important. Christensen et al. (2003) also claim that during the decision-making process public participation is a crucial factor in changing the design of EIA projects. Regarding to the definition of public participation, the International Association for Impact Assessment (IAIA) defines public participation in the environmental assessment as *“the involvement of individuals and groups that are positively or negatively affected, or that are interested in, a proposed project, program, plan or policy that is subject to a decision-making process”* (IAIA, 2006, p.1). Public participation has become an obligated element in decision-making process, not without reason. According to the study of Glucker (2012), three types of rationales of public participation in EIA have been concluded, that are, normative rationale (i.e. influencing decisions, enhancing democratic capacity, social learning, empowering marginalized individuals and groups), substantive rationale (i.e. harnessing local knowledge, incorporating experimental and value-based knowledge, testing the robustness of information from other sources), instrumental rationale (i.e. generating legitimacy, resolving conflict) (Glucker, 2012). These all rationales have illustrated the functions of public participation in the EIA process. On the whole, public participation aims to strengthen environmental, social and economic sustainability of development proposals. Nevertheless, there are still all kinds of problems in implementing public participation in EIA in many countries, especially in developing countries. These various problems have constrained the well performance of public participation in EIA, to a large extent. One of these problems is incomplete legal system of public participation in EIA legislation. For example, public participation provisions in the Chinese EIA legislation are unclear and not comprehensive in a number of ways such as information disclosure problem, no access to justice for the public and so on, which has largely hindered the well implementation of public participation in EIA (Yang, 2008). In order to promote the implementation of public participation in the EIA process, many countries have gradually improved public participation provisions to make them clearer and comprehensive in their own EIA legislation. The public participation provisions in EIA legislation have been seen a guarantee for the legality of public participation in EIA and the development of these provisions has reflected national democratic progress.

In EIA legislation, the provisions reflecting how the public take part in the EIA process can be classified as public participation provisions. According to Environmental Law Alliance Worldwide (ELAW, 2013) and Netherlands Commission for Environmental Assessment (NCEA, 2013), the general profile of public participation provisions in EIA legislation in most countries includes provisions regarding such as the EIA stages in which public participation is conducted, information accessibility, information dissemination, timeline for the public to review and make comments on the EIA documents, costs for the public, public comments in decision-making, opportunity for appeal and so on (ELAW, 2013; NCEA, 2013). However, these public participation provisions in EIA legislation are varied from country to country. The provisions regarding how to undertake public participation, who should participate, when it should

commence in the EIA process, the methods that should be used and how information is available to the public are diverse in different countries. These provisions can reveal the situations of public participation in countries. For example, provisions regarding access to information illustrate the extent to which EIA-related information are available to the public. In some countries most of EIA information are required to be available to the public while in other countries only a small part of information are available to the public (NCEA, 2013). The information accessibility can reflect transparency to the public. Some countries have high transparency to the public if all information is available to the public while other countries have low transparency to the public if only a small part of information is available to the public.

According to the study of Kolhoff et al. (2013), it can be seen that the development of EIA legislation covers the development of public participation provisions. For example, in Finland, compared to old EIA legislation, some provisions have been improved in new EIA legislation in order to improve the accessibility of information and provide more opportunities for public participation in EIA process (Finland's environmental administration, 2013). The development of public participation provisions in EIA legislation can disclose the change in the extent of public participation like earlier public involvement in the EIA process, enhanced transparency to the public or increased influence on decision-making. For instance, according to the study of Palerm (1999), in Hungary there was a significant development in public participation provisions in EIA legislation. Compared with the 1993 EIA decree, the 1995 Environment Act introduced the provision for a public review of the preliminary environmental impact study (PEIS), which indicated a change in the timing of public participation in the EIA process-earlier public involvement in EIA. In addition, the time allowed between notification and the public hearing was extended from 15 to 30 days, which meant the improvement in the timeline for the public to make comments on the EIA documents. Moreover, another major difference was the use of mass media (e.g. local or national newspapers) for the EIA notification, not limited to the use of the traditional ways, which can improve the information dissemination and thus enhance the transparency to the public (Palerm, 1999). In China, the development of public participation provisions in EIA legislation has also experienced several periods (Yang, 2008). The development of public participation provisions in EIA legislation in countries especially in developing countries are influenced by some factors such as resources, political and administrative systems, social and cultural systems, and the level and nature of economic development. For instance, in Indonesia, EIA in the previous regulations before 1999 did not have any provisions for public participation. After Government Regulation No.27/1999 was enacted, from 2000 on, this new regulation enacted relevant public participation provisions in EIA legislation (e.g. public participation guidelines). This significant development in EIA legislation in Indonesia is mainly influenced by some context factors (e.g. the reform of political regime) (Purnama, 2003). Rajvanshi (2003) and Cherp (2001) also claim that the development of public participation provisions in EIA legislation is influenced by factors such as cultural, social, political and economic contexts.

1.3 Research Objectives

As what has been mentioned above, different public participation provisions can reveal various developmental situations of public participation in countries. These situations are such as the timing of public participation in the EIA process stages, the transparency to the public and the influence of public comments on decision-making, which are reflected in EIA public participation provisions. An overview on public participation provisions in EIA legislation in a country can reflect the whole situation of public participation in the country and thus provide guidance for policy makers and EIA scholars who want to develop public participation provisions. However, by now, most of existing literatures focus on the effectiveness of public participation in the EIA process or the study of public participation methods. Little studies focus on public participation provisions in EIA legislation. For example, Shepherd et al. (1997) have developed an analytical framework in terms of rationales like democracy, conflict resolution and improved planning in order to analyze the effectiveness of public participation. Moreover, the types of EIA public participation methods and the characteristics of these methods have also been analyzed by Johnson et al. (2003). Hence, through reviewing all kinds of relevant literatures related to EIA and/or public participation, it has been found that the focus on the classification and characterization of EIA public participation provisions has received surprisingly little attention, at least been fragmented in the existing literatures. To my knowledge, so far there is not a single study focusing on developing a comprehensive analytical framework for classifying and characterizing public participation provisions in EIA legislation. Therefore, in order to fill in this knowledge gap, it is necessary to review and re-study existing relevant literatures and based on theoretical research to develop a analytical framework for classifying and characterizing EIA public participation provisions, which aims to provide the framework for relevant EIA actors (e.g. EIA policy makers, EIA scholars/researchers, EIA practitioners etc.) to analyze the developmental situations of public participation provisions in a country. Thus, the first objective of the research is “*to develop a comprehensive analytical framework for classifying and characterizing public participation provisions in EIA legislation*”.

Furthermore, most of existing studies focus on factors influencing the effectiveness of public participation in the EIA process. So far, the research about factors influencing the development of EIA public participation provisions is still lacking, at least is not in-depth. In order to fill in this knowledge gap, it is necessary to identify factors influencing the development of EIA public participation provisions in countries, especially in developing countries. This is because at present in many developing countries one common problem is the incomplete and unclear public participation provisions in EIA legislation and these provisions have influenced the implementation of public participation in the EIA process and thus have brought many problems. This is the motivation to study developing countries. Through selecting several representative developing countries as case studies, the factors which influence the development of EIA public participation provisions can be identified. What need to be mentioned is that the term ‘influence’ can be divided into positive and negative influence. That is to say, positive influence can push the development of EIA public participation provisions while negative influence can hinder that development. As a result, by identifying influencing

factors, all relevant EIA actors such as EIA policy makers, EIA scholars/researchers, and EIA practitioners from developing countries can understand these influencing factors and make corresponding adjustments in order to develop more adequate EIA public participation provisions which not only tend to comply with international good-practice, most importantly but also adapt to the country-specific contexts. Hence, the second objective of the research is “*to study and identify the factors influencing the development of EIA public participation provisions in developing countries*”.

1.4 Research Questions

Based on the research objectives described above, central research question is formulated as follows:

“Which factors influence the development of public participation provisions in EIA legislation in developing countries?”

The sub-questions are as follows:

1. According to literature review, what categories and indicators are used to classify and characterize public participation provisions in EIA legislation when developing a comprehensive analytical framework?
2. Which factors can be identified from case studies?
3. Among all identified factors, which factors play a more important role in influencing the development of public participation provisions in EIA legislation (political, economic or cultural factors)?
4. To what extent the public participation provisions in EIA legislation are effectively implemented in selected case countries? What are the barriers? And what improvements should be done in these case countries?

1.5 Research Methodology

As described above, this research has two main objectives. In this section, the research methodology used to reach these objectives is outlined. Two kinds of research strategies have been chosen for this study: desk research and case study.

Desk Research

In order to achieve the first objective of the research regarding to develop an analytical framework for classifying and characterizing public participation provisions in EIA legislation, the first part of the research has used desk research as research strategy. During the period of desk research, information was mainly collected from existing materials including relevant literature, secondary data and official legislative documents. Literature is about EIA, public participation in the EIA process and public participation provisions in EIA legislation. Secondary data is about the general profile of EIA public participation provisions in 36 countries, which is provided by the NCEA and is used as a starting point. Legislative documents are about EIA-related legislation, laws, policies, regulations and guidelines which are obtained from the official legislative websites of China, India and Indonesia. Through desk

research, an overall picture of public participation provisions in EIA legislation has been drawn. In addition, categories and indicators used to classify and characterize EIA public participation provisions have been identified to develop a comprehensive analytical framework. Moreover, the theoretical and hypothetical factors which influence the development of EIA public participation provisions have also been listed and they have already been tested in case studies.

Case Study

In order to achieve the second objective of the research regarding to identify the factors influencing the development of EIA public participation provisions in developing countries, the second part of the research has selected case study as research strategy. Case study can generate in-depth results and provide valuable insights that cannot be captured by reviewing literature. The type of results in case study is descriptive and qualitative. A case study can be defined as “*an intensive study of a single unit for the purpose of understanding a larger set of similar units*” (Gerring, 2004, p. 342). In this research, the case study has been conducted in three developing countries (i.e. China, India and Indonesia). The reasons for selecting the three countries are displayed as follows. One reason is that the three countries have enough information and contact resources I can easily access to. Second reason is that these countries have enacted public participation provisions in their own EIA legislation and experienced several developmental stages. Third reason is that these countries are considered as developing countries which share similar historical, social, cultural, and economic features and their public participation systems in EIA still have many problems and need to be studied and improved.

During the period of case study, the analytical framework developed by desk research has been used to analyze the developmental situations of EIA public participation provisions in China, India and Indonesia. In addition, the case studies have provided in-depth analysis about the factors influencing the development of EIA public participation provisions, and provided valuable insights regarding the implementation situations of existing EIA public participation provisions in China, India and Indonesia. In the three case studies, the primary method for information collection was through conducting semi-structured interview with relevant EIA actors including EIA legislators, EIA practitioners and EIA scholars/researchers. In this way, the interviews have covered government agencies, EIA competent authorities, and EIA research institutes/universities. Due to limited time and distance barriers, some of interviews were taken by using Skype video interviews while some of interviews were conducted by email. In this semi-structured interview process, an interview guide and a set of open-ended questions have been prepared in advance (see appendix A). The sequence and the wording of the questions are allowed to change in terms of interview situations, and the people who are interviewed. This kind of open and flexible interview has made different interviewees be asked in different ways and has allowed new ideas to be brought up as a result of what the interviewee says. In short, this kind of semi-structured interview has helped to create a relaxed atmosphere and thus made the interview more successful. During interview process, the interviewees not only provided their opinions and share their relevant experience, but also offered additional supplemented materials which are served as a source of

information for case studies in China, India and Indonesia. In sum, for each country case study, information was gathered by conducting interviews, combined with documentation analysis. Through the three country case studies, the research questions regarding the influencing factors, the implementation situation of existing EIA public participation provisions and improvement suggestions are all solved.

In this research, the author has decided to use different reference codes to represent interviewees. Table 1 gives a list regarding the information of each interviewee, and also provides an overview of the number of interviewees per country. Since interviewees from different backgrounds may have different perceptions and experiences on the issues, it is necessary to categorize them into several groups based on their work institutes. From the table 1, it can be seen that in each country there are seven interviewees and the interviewees have been classified into four groups: Research University, Research Institute, Government Institute, and Project Proponent. More specific, the people from research universities as EIA researchers or scholars are mainly responsible for conducting EIA-related theoretical and scientific research (e.g. scientifically evaluating and analyzing the EIA development from public participation perspectives), and publishing EIA-related articles, although some of them are also involved in implementing EIA-related laws and regulations including implementing public participation provisions. Due to their rich and profound theoretical knowledge on the EIA subject, they could provide this research with important insights. The people from EIA research institutes as EIA practitioners are mainly responsible for implementing EIA-related laws and regulations (including public participation provisions) in practice, conducting public participation process, and preparing and writing EIA report, although some of them also participate in making local EIA-related technical regulations. These people could provide empirical opinions for this research based on their practical experience. The people from government institutes mainly take responsibility of making and developing EIA-related legislation, laws, policies, regulations and guidelines (including public participation provisions), implementing them and supervising the implementation, assisting project proponents to facilitate and mediate the public meetings, and assisting some studies on EIA/public participation research. These people would have a comprehensive perspective on the EIA (including public participation) issue. Last group, project proponents are mainly in charge of preparing EIA documents and managing the implementation of the EIA documents in the daily project activities. These people are familiar with the EIA procedures (including public participation procedures) and also have practical experiences about EIA and public participation.

In this study, the interview results have been qualitatively analyzed in the following case study chapters (see chapter 4, 5 and 6). Some interviewees' inputs have been used directly for the analysis while some interviewees' comments have been expressed by using the interviewer's own words. The interview findings have been processed by combining literature review and documentation analysis, in order to enhance the reliability of research results.

Table 1: A list of interviews

	Interview group	Reference code	Function of respondent
China	Research university	Cn-R1	Professor, College of the Environment & Ecology, Xiamen University.
	Research university	Cn-R2	Associate Professor, College of the Environment & Ecology, Xiamen University.
	Research institute	Cn-R3	Director, Research Center for Environmental Impact Assessment, Shanghai Academy of Environmental Sciences.
	Research university	Cn-R4	Associate Professor, College of Environmental Science and Engineering, Nankai University. Assistant Director, Research Center for Strategic Environmental Assessment, Nankai University.
	Research institute	Cn-R5	South China Institute of Environmental Science.
	Government institute	Cn-G6	Senior engineer, Appraisal Center for Environment & Engineering, Ministry of Environmental Protection.
	Research institute	Cn-R7	Tianjin Academy of Social Sciences.
India	Government institute	In-G1	Head, EIA Cell, Wildlife Institute of India.
	Government institute	In-G2	Executive President, Environmental Management Centre LLP, India.
	Research university	In-R3	Lecturer, Department of Geography and Planning, School of Environmental Sciences, University of Liverpool.
	Government institute	In-G4	Head, Department of Eco-development Planning & Participatory Management, Wildlife Institute of India.
	Research university	In-R5	Associate Professor, Department of Environmental Studies & Sciences, University of Winnipeg.
	Research university	In-R6	Associate Professor & Head, Department of Geography, D.A.V. (P.G.) College, Dehradun.
	Research institute	In-R7	Research associate, Council on Energy Environment and Water, India.
Indonesia	Government institute	Id-G1	Civil servant at Environmental Agency of Banten Province, Indonesia.
	Government institute	Id-G2	Government officer at Environmental Agency of Sabang Municipality, Aceh Province, Indonesia.
	Research university	Id-R3	Lecturer, Graduate Program of Environmental Studies, Diponegoro University, Semarang, Indonesia.
	Project Proponent	Id-P4	Environment Manager of a private oil and gas company: INPEX Corporation
	Government institute	Id-G5	Head of Division for EIA Systems Development, Directorate of EIA, Deputy for Environmental Governance, Ministry of Environment, Indonesia.

	Others	Id-O6	Independent researcher and consultant
	Government institute	Id-G7	Associate Director for Policy Analysis, Office of Federal Activities, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency

Limitations of the methodology

In the case studies, some weak points have been recognized. The first weak point is that semi-structured interview as research technique to collect information may lower the reliability of the research results since the information given in interviews is based on the individual's experiences, perceptions, and memories. In addition, the information is gained from the respondents who work in research universities/institutes and governmental institutes, or are project proponents (see table 1). It lacks the inputs of people who work in civil organizations (e.g. NGOs) or are general public. Although this research mainly focuses on the development of public participation provisions in EIA legislative system and people from civil organizations may only provide limited information, this does not mean their inputs are valueless. The triangulation of information sources is important especially in social science field. However, despite that, it cannot deny the value of the research findings since the interviewees have rich professional knowledge and work experience related to public participation in EIA system and thus the information obtained from these interviewees can help to increase the reliability of the research results.

Another weakness is the limited number of interviewees in each country case study (7 interviewees per country) due to the limited time and the distance constraint. In this research, one of the research questions is to explore the extent to which the identified factors influence the development of EIA public participation provisions, and the answer to the question is based on interviewees' responses. The responses from small number of interviewees may make the findings not obvious and thus it is necessary to increase the number of interviewees to make the research results more reliable.

1.6 Reading Guide

In chapter 2, a desk research of public participation provisions in EIA legislation will be given. In order to develop a comprehensive analytical framework for classifying and characterizing EIA public participation provisions, this desk research will give the general description on EIA public participation provisions, and identify categories and indicators used to classify and characterize public participation provisions. In addition, the theoretical and hypothetical factors influencing the development of EIA public participation provisions in developing countries are also displayed. In chapter 3, the analytical framework is used to analyze the NCEA database about the profiles of EIA public participation provisions in 36 countries. In chapters 4, 5 and 6, three case studies are presented: China (chapter 4), India (chapter 5), and Indonesia (chapter 6). In each case study chapter, background information about the country is firstly given. Then an overview of the developments of EIA public participation provisions in that country is outlined. Next the influencing factors are identified. Subsequently, the implementation situation of these provisions and suggested improvements are presented. Lastly, an interim conclusion

is drawn from the empirical analysis. In chapter 7, the results of the three case studies are synthesized and discussed. A final conclusion and some recommendations for future research are respectively given in chapter 8 and 9.

2 Desk Research on EIA Public Participation Provisions

2.1 Introduction

According to research objective 1, in this chapter a desk research of public participation provisions in EIA legislation will be given. In order to develop a comprehensive analytical framework for classifying and characterizing EIA public participation provisions, this desk research will focus on the following key issues: (1) general description on EIA public participation provisions; (2) categories used to classify and characterize public participation provisions; (3) under each category the indicators used to measure the development of EIA public participation provisions. In addition, the theoretical and hypothetical factors which influence the development of EIA public participation provisions in developing countries are then listed by literature review and these factors will be tested in case studies.

2.2 General Description on EIA Public Participation Provisions

As described in first chapter, based on the secondary data from Environmental Law Alliance Worldwide (ELAW, 2013) and Netherlands Commission for Environmental Assessment (NCEA, 2013), it can be seen that the general profile of public participation provisions in EIA legislation in most countries includes provisions regarding the EIA stages in which public participation is conducted, criteria to hold public meeting, the public involved, access to information, information provision, public participation methods, timeline for the public to review and make comments on the EIA documents, costs for the public in participatory process, public comments on EIA documents, public comments in decision-making, information presentation and opportunity for appeal (ELAW, 2013; NCEA, 2013). All public participation provisions are derived from relevant public participation policies, laws, regulations and guidelines in EIA. In the next step each EIA public participation provision will be introduced in terms of its definition and contents.

The EIA stages in which public participation is conducted

The provision regarding the EIA stages in which public participation is conducted describes during which stages in the EIA process the public can participate. Wood (1995) has presented a schematic diagram of the EIA process (see Figure 1) and the various EIA stages are illustrated in this diagram. The main EIA process stages include screening, scoping, preparation of the EIA report, reviewing the EIA report, decision-making, monitoring. It should be noted that these stages are all trusting to some extent, in the specific legislation within countries. In countries, the EIA stages in which the public can participate are different. Public participation can occur earlier and persist in all EIA stages in some countries while public participation can only start late in the EIA process (e.g. in the review stage after EIA report has been almost done).

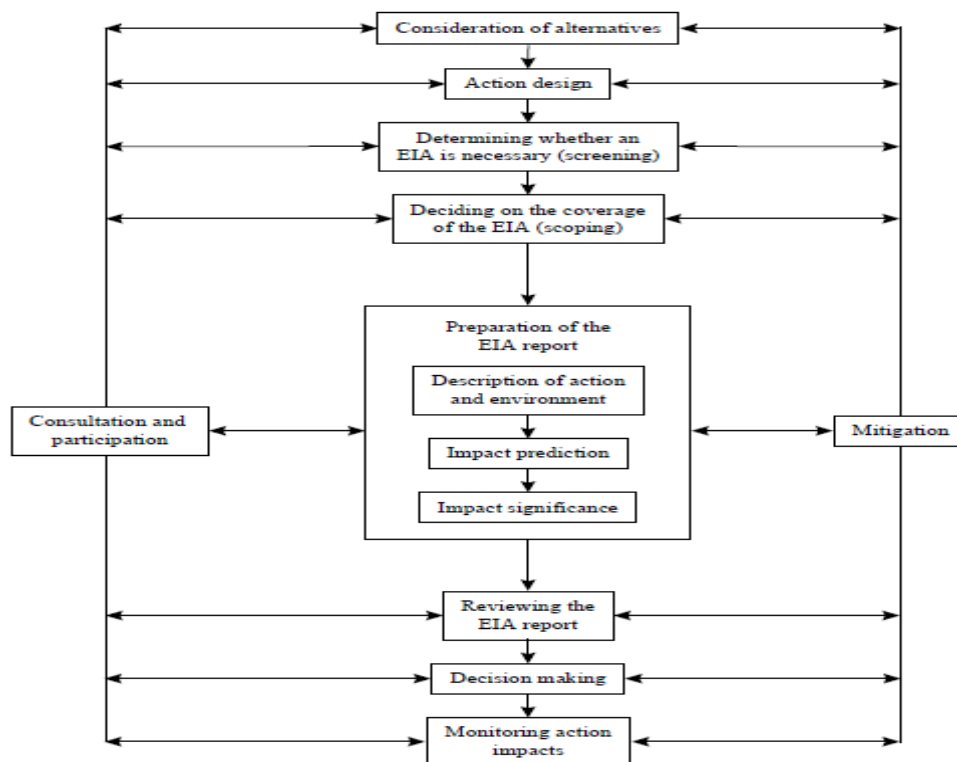


Figure1. The whole EIA process stages (Source: Wood, 1995)

Criteria to hold public meeting/hearing

Public participation provision regarding criteria to hold public meeting/hearing describes how the public meeting/hearing is held. According to ELAW (2013), public meeting/hearing can be automatically required, or responsible ministry or agency has discretion to decide whether to hold a meeting/hearing.

The selection of the public

Public participation provision regarding the selection of the public describes what kinds of the public can participate in public meeting/hearing. Wang et al. (2003) mention that the public should include local residents, indigenous people, voluntary organizations such as local resident committees, nonresident social groups who may use local resources, and the disadvantaged social categories such as women or the elderly. Yang (2008) also points out that the public should comprise any person affected or likely to be affected by the proposal, statutory groups and non-governmental environmental groups at international, national and local levels, the general public who are just interested in the proposal. Zhao (2010) claims that generally there are two types of the public, one refers to the “general public” and the other refers to “the public being consulted”. The public being consulted are those people who represent legal persons or other organizations potentially affected by the proposed projects. These people are invited based on comprehensive consideration of all kinds of factors, like geographical location, special knowledge, occupation, and communication and expression skills etc. In sum, different public participation provisions may have different stipulations in the selection of the public.

Access to information

Public participation provision regarding access to information describes what kinds of information are available to the public. More specific, this provision prescribes which reports and decision statements can be provided for the public. According to the data provided by the ELAW (2013) and NCEA (2013), relevant information generated in the EIA process includes project report (environmental and project information sheets), EIA study report (draft EIA report and final EIA report), management plan, environmental monitoring report, record of decision for EIA approval, licenses for project report, licenses for EIA, various decision statements and database for EIA firms and experts. In addition to above information, other information encompasses such as information regarding administrative and judicial procedures for the public (Hartley and Wood, 2005).

Information provision

Public participation provision regarding information provision describes where and how the information can be obtained and viewed by the public. Based on the data from the NCEA (2013) and ELAW (2013), the information can be obtained at certain points (e.g. local government office, agency or ministry office or library), and/or can be available through media ways (e.g. internet, newspaper, radio etc.).

Public participation methods

Public participation provision regarding public participation methods describes which public participation methods are used during the public participation process. The public participation methods range from those methods like public meetings/hearings, public opinion surveys, and focus groups that bring about opinions to those methods (e.g. consensus conferences and citizens' juries) that elicit judgments and decisions (Rowe et al., 2000).

Timeline for the public to make comments on the EIA documents

Public participation provision regarding the timeline for the public to review and make comments on the EIA documents describes the number of days available for the public to review and make comments on relevant EIA documents such as draft EIA report, final EIA report or other EIA decision documents. According to the data provided by the ELAW (2013) and NCEA (2013), the timeline can be divided into three groups. First group is less than 30 days. Second group is more than 30 days and less than 60 days. Third group is more than 60 days.

Costs for the public in participatory process

Public participation provision regarding costs for the public in participatory process describes whether or not the public spend some money on participation in the EIA process. Relevant costs cover the fee to view or obtain EIA documents, the expense on travelling to meetings, or cost of appeal etc (NCEA, 2013; ELAW, 2013).

Public comments on EIA documents

Public participation provision regarding public comments on EIA documents describes in which ways the public can provide their comments (e.g. written way or verbal way) and

whether the public can freely express their comments on EIA documents (NCEA, 2013; ELAW, 2013).

Public comments in decision-making

Public participation provision regarding public comments in decision-making describes the extent to which the public comments are taken into consideration in decision-making. The public comments in decision-making can be classified into “must take into account public comments”, “free to take into account public comments”, “regardless of public comments” (NCEA, 2013; ELAW, 2013).

Information presentation

Public participation provision regarding information presentation describes whether or not the information is presented in an easily understandable way. The information which is presented in a non-technical format is understandable to lay people while the information presented in a technical language is not easily understandable to lay people (Hartley and Wood, 2005; Asha, 2003).

Opportunity for appeal

Public participation provision regarding opportunity for appeal describes whether or not the public have right to appeal on EIA decisions. The right to appeal can be possessed by government agencies, project developers/proponents, NGOs or the general public (e.g. individuals or local resident committees etc) (NCEA, 2013).

An overview of public participation provisions in EIA legislation is displayed in the following table 2 which shows the main contents of each EIA public participation provision based on above detailed descriptions of EIA public participation provisions.

Table 2: An overview of EIA public participation provisions

EIA public participation provisions	Description	Sources
The EIA stages in which public participation is conducted	Which stages do the public can participate in EIA process? (EIA process stages include screening, scoping, preparation of the EIA report, reviewing the EIA report, decision-making, monitoring)	Wood (1995)
Criteria to hold public meeting/hearing	How does the public meeting/hearing be held? (Automatically required or depend on the decision of ministry or agency.)	ELAW (2013)
The selection of the public in public meetings/hearings, or EIA review commission etc.	What kinds of the public can participate in public meetings/hearings, or EIA review commission etc.? (The types of the public include like project beneficiaries, local residents, voluntary organizations such as local resident committees, indigenous peoples, nonresident social groups who may use local resources and selected social categories such as women or the elderly, any person affected or likely to be affected by the project and the general public who are just interested in the project)	Wang et al. (2003); Yang (2008); Zhao (2010)
Access to information	Which information that is generated in the EIA process is available to the public? (Information include like draft EIA report, final EIA report, Environmental Management Plans, Environmental Monitoring Plans, various decision statements on these documents, and information regarding administrative and judicial procedures etc.)	ELAW (2013); NCEA (2013); Hartley and Wood (2005); Yang (2008)
Information provision	Where and how does the information can be obtained and viewed by the public? (Obtained at one central point like local government office, agency or ministry office or library, or can be available through media such as internet or newspaper)	NCEA (2013); ELAW (2013)
Public participation methods	Which public participation methods are used during the public participation process? (e.g. public meetings/hearings, public opinion surveys, focus groups, consensus conferences or citizens' juries)	Rowe et al. (2000)
Timeline for the public to review and make comments on the EIA documents	Describes the number of days available for the public to review and make comments on relevant EIA documents. (less than 30 days, more than 30 days and less than 60 days or more than 60 days)	ELAW (2013); NCEA (2013);
Costs for the public in participatory process	Whether or not the public spend money on participation in the EIA process? (The costs cover the fee to view or obtain EIA documents, the expense on travelling to meetings, or cost of appeal etc).	ELAW (2013); NCEA (2013);
Public comments on the EIA documents	In which ways the public can provide their comments (written way or verbal way)? What EIA documents (draft EIA report or final EIA report) the public can make comments?	ELAW (2013); NCEA (2013);
Public comments in decision-making	To what extent the public comments are taken into consideration in decision-making? (Serious consideration or no consideration of public comments in decision-making)	ELAW (2013); NCEA (2013);
Information presentation	Whether or not the information is presented in an easily understandable way? (The information can be presented in a non-technical way (e.g. local language) or in a technical way (e.g. official language)).	Hartley and Wood (2005); Asha (2003).
Opportunity for appeal	Whether or not the public have right to appeal on EIA decisions?	NCEA (2013)

2.3 Categories and Indicators

In order to better understand the development of EIA public participation provisions, in this section, the categories that are used to classify and characterize these provisions in terms of a set of criteria of public participation are firstly identified. Then, for each category, the relevant indicators that are often applied in the study of public participation provisions are given. The basis stems from existing literature on EIA public participation. Finally, a complete analytical framework is developed.

2.3.1 Categories

According to existing literature, often-employed evaluative criteria of public participation in EIA are such as transparency to the public, the level of communication, the degree of influence on decision-making, the stimulation of public participation, competence of the public, fairness, and trust etc. (Rowe et al., 2000; Rajvanshi, 2003; Hartley and Wood, 2005). These criteria can show different characteristics of public participation provisions in EIA. In this research, the categories used to characterize EIA public participation provisions are displayed as follows, based upon the commonly used criteria of public participation in EIA.

The stimulation of public participation

The stimulation of public participation can be achieved through the legal promotion and economic incentive. The provisions regarding “whether to legally require public participation in the EIA process”, “criteria to hold public meeting/hearing”, and “cost issue” can be clustered into the category “the stimulation of public participation”. It is clear that, if public participation is legally required in the EIA process stage(s) and public meeting/hearing is automatically required in every public participation process, this will positively stimulate public participation. In addition, free of charge for the public in the whole participatory process also can largely enhance public will to participation while the people who are in charge of the costs for the participatory process would not prefer to take part in the process. Rajvanshi (2003) also claims that availability of financial resources to the public can facilitate public participation.

Transparency to the public

The EIA process should be transparent so that the public can see what is going on and how decisions are being made. Transparency to the public could be reflected in the information release. Hence, the provisions regarding “access to information” and “information provision” should be classified into this category “transparency to the public”. High accessibility of information and widespread information dissemination can increase the transparency of the decision-making process.

The level of communication

The provisions regarding “public participation methods”, “timeline for the public to make comments on EIA documents”, “public comments on EIA documents”, and “information presentation” have been selected that determine the level of communication. Generally speaking, selecting public participation methods which can promote two-way information flows, sufficient timeline for the public to making comment on EIA documents, plural forms of public

comments (both written and verbal form accepted), the high level of freedom of public comments (free to make comments on EIA documents) and information presented in a non-technical way can largely enhance the level of communication among different stakeholders, especially promote the communication between decision makers/proponents and the general public.

Fairness and representativeness

Fairness and representativeness is about the full range of the participants with different backgrounds. The provision regarding the selection of the public is classified into this category “fairness and representativeness”. The fairness means that any person affected or likely to be affected by the proposed project, the general public who are just interested in the proposed project and even disadvantaged social categories such as women or the elderly can participate in public meetings/hearings, or EIA review commissions etc. The representativeness is to ensure that the selected public can represent wide range of interests of different stakeholders as far as possible.

The degree of influence on decision-making

The degree of influence on decision-making is about the extent to which public participation influences the decision-making. The provisions regarding “the EIA stages in which public participation is conducted”, “public comments in decision-making” and “appeal issue” are selected to decide the degree of influence on decision-making. The early participation of the public in the EIA process (e.g. at the screening or scoping stage), serious consideration of public comments in decision-making and the existence of public right to appeal will bring significant influence on final decision-making.

2.3.2 Indicators

There are many literature related to the assessment of public participation in EIA based on a set of evaluative indicators. Rowe et al. (2000) develop an evaluative framework for public participation methods by using a set of indicators including such as representativeness of participants and resource accessibility (e.g. information resources) (Rowe et al., 2000). Rajvanshi (2003) also mentions that in the several often-employed frameworks, indicators used to evaluate the participatory process in EIA systems in most countries include the timing of public participation, representativeness of the participants, opportunities of external communication, access to information, level of familiarity with various issues, and availability of financial resources for facilitating participation (Rajvanshi, 2003). Another powerful basis from the study of Hartley and Wood (2005), they use ten practice evaluation indicators which are derived from the Aarhus Convention to analyze the public participation procedures in the UK EIA system. These used indicators are like timing of public participation, information accessibility, information provision, interaction of participants, compromise regarding achieved consensus, communication of materials and so on (Hartley and Wood, 2005). These indicators mentioned above can be taken into account as a reference to help identify the indicators measuring the development of EIA public participation provisions. According to the description of EIA public participation provisions in section 2.2 and categories identified above in section

2.3.1, in the following a set of indicators under each category are displayed.

A. Category "The stimulation of public participation"

Legality of public participation in EIA

Legality of public participation in EIA can be seen an important indicator. Not all EIA legislations legalize public participation. The provisions for public participation in EIA legislation can provide the legal basis for public participation in EIA. The lack of public participation provisions in EIA legislation means that public participation is not legally required in EIA legislation.

Costs for the public

Cost is another crucial indicator characterizing the provision regarding costs for the public in participatory process. The costs for the public can range from free of charge in the whole participatory process towards in charge of all costs for the whole participatory process (NCEA, 2013; ELAW, 2013).

The requirement to hold public meeting/hearing

Another indicator is the requirement to hold public meeting/hearing which characterizes the provision regarding criteria to hold public meeting/hearing. Public meeting/hearing can be compulsorily/automatically required or it depends on the decision of responsible ministry or agency (ELAW, 2013).

B. Category "Transparency to the public "

Information accessibility

Another indicator is information accessibility which can characterize the provision regarding access to information. Up-to-date, accurate, and complete information on the EIA projects should be provided for the public to study the potential environmental impacts and assess the effectiveness of the proposed environmental management measures (Zhao, 2010). All kinds of EIA-related information including like basic information of projects, EIA documents (e.g. Environmental Impact Statements, Environmental Mitigation Plan, and Environmental Monitoring Plan etc.), stakeholders' opinions (e.g. experts' opinions), public responses, and various decision statements are available to the public, which indicates high accessibility of information. On the contrary, low accessibility of information implies that only limited information can be provided for the public (Hartley and Wood, 2005; Yang, 2008; Rajvanshi, 2003; Rowe et al., 2000).

Information dissemination

Information dissemination as an indicator can characterize the provision regarding information provision. Wide information dissemination means that various EIA-related information (including not only basic project information, but also EIA reports etc.) are not only obtained at one central point (e.g. local government office, agency or ministry office, or library), but also available through media ways (e.g. internet, newspaper, radio etc.) (NCEA, 2013; ELAW, 2013).

C. Category "The level of communication"

The direction of information flow based on selected public participation methods

Another important indicator is the direction of information flow which can characterize the provisions regarding public participation methods. Different public participation methods can lead to different degrees of information communication based on the directions of information flows between the public and decision-makers. For example, methods such as public opinion surveys or public comments mainly lead to one-way information flow from the public to decision-makers while two-way information flows can be shown in the methods like public meetings/ hearings or consensus conferences (Videira et al., 2006). Thus, the direction of information flow can range from one-way information flow (e.g. from the public to decision-makers or from decision-makers to the public) towards two-way information flows. Bond et al. (2004) claim that public participation must be a two-way communication way where there is a dialogue between the decision-makers/developers and the public in order to reach mutual learning.

The way to present information

The way to present information is also an important indicator characterizing the provisions regarding information presentation. Cherp and Antypas (2003) have already pointed out that EIA information must be presented in a language and manner that is understandable to policy-makers. Similarly, EIA information should be presented in a non-technical way that is more understandable to lay people. Therefore, the way to present information can range from a technical way (e.g. official language) toward a non-technical way (e.g. presented in local language).

Timeline for the public to make comments

Timeline for the public to make comments is also an important indicator which characterizes the provision regarding the timeline for the public to review and make comments on EIA documents. Insufficient timeline for public comments on EIA documents is a constraint for effective public participation (Hartley and Wood, 2005). Without adequate time for the public properly to review, investigate and respond to the EIA documents, it is impossible to develop meaningful input (Zhao, 2010). In this regard, the timeline for the public to review and make comments on EIA documents should be extended. Therefore, the timeline for public comments can range from short timeline (less than 30 days) to medium timeline (more than 30 days and less than 60 days) to long timeline (more than 60 days) (NCEA, 2013; ELAW, 2013).

The form of public comments

The form of public comments can be considered as an indicator characterizing the provision regarding public comments on EIA documents. The form of public comments can range from single form (i.e. only written way or verbal way accepted) to plural forms (i.e. combined written way with verbal way) (NCEA, 2013).

The freedom of public comments

The freedom of public comments is also an important indicator which characterizes the provision regarding public comments on EIA documents. The high level of freedom of public

comments shows that the public can freely make any comments on EIA documents (e.g. the planning application, the scope of the EIA, draft EIA report and final EIA report) and freely express individual experiences and values, without limitation to the discussion of factual evidence (NCEA, 2013; ELAW, 2013; Palerm et al., 2004; Bond et al., 2004). Hence, the freedom of public comments can range from limitedly make comments on EIA documents towards freely make comments on EIA documents.

D. Category “Fairness and representativeness”

Types of the public involved

Types of the public involved in public meetings/hearings or the EIA review commission etc. is also an indicator to characterize the provision regarding the selection of the public. The types of the public involved should be inclusive as far as possible, include like NGOs at international, national and local levels, statutory groups, local resident committees, any person affected or likely to be affected by the proposal, the general public who are just interested in the proposal, and even disadvantaged social categories such as women or the elderly (Wang et al., 2003; Yang, 2008). Bond et al. (2004) also claim that public participation must be inclusive, integrating a wide range of stakeholders and in particular taking minorities into account.

E. Category “The degree of influence on decision-making”

The starting time of public participation in EIA

The starting time of public participation in EIA process can be chosen as an indicator to characterize the provision regarding the EIA stages in which public participation is conducted. The timing of public participation in EIA process mainly includes scoping, environmental impact statement (EIS) preparation, EIS review and decision. These phases encompass the moment from which an EIA is prescribed, to the moment the decision is made (Palerm, 2000). Under some EIA regimes, public participation happens too late since it usually occurs after EIA reports are drafted and there is minimal public input before the drafting of EIA reports. However, the earlier the participation occurs in the EIA process, the more influence the public is likely to have on EIA process. Rowe et al. (2000) have stressed the importance of early public involvement in policy-making process. The importance of commencing public participation ‘early’ in EIA process is also emphasized throughout the Aarhus Convention (Hartley and Wood, 2005). Bond et al. (2004) also claim that public participation must take place early in the decision-making process and ideally from the screening and scoping stages. Yang (2008) and Glucker (2012) also claim that the late involvement of the public is a barrier to effective public participation in EIA. Hence, the starting time of public participation in EIA process can range from early participation (e.g. scoping stage) towards late participation (e.g. reviewing stage).

Response to public comments in decision-making

Response to public comments is also a vital indicator characterizing the provision regarding public comments in decision-making process. Strong response indicates that public comments will be seriously taken into consideration in decision-making process. The responses to public comments range from no consideration of public comments to strong consideration of public comments in decision-making (NCEA, 2013; ELAW, 2013).


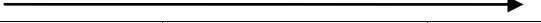

Right to appeal on final EIA decisions

Another indicator is right to appeal which characterizes the provisions regarding opportunity for appeal. Right to appeal on final EIA decisions can be divided into “no right for the public to appeal” and “having right for the public to appeal” (NCEA, 2013; ELAW, 2013).

2.4 An analytical framework

According to the indicators and categories identified, a comprehensive analytical framework for classifying and characterizing the development of EIA public participation provisions is derived. For each indicator in the framework, two or three different development levels ranging from ‘low’ to ‘medium’ to ‘high’ are identified. All indicators are classified into five categories. The analytical framework provides insights into EIA public participation provisions and measures the development of EIA public participation provisions over time. It is assumed that the countries have specific factors providing opportunities or constraints for the development of public participation in EIA as reflected in public participation provisions. The comprehensive analytical framework is displayed in table 3.

Table 3: An analytical framework classifying and characterizing the development of public participation in EIA, as reflected in EIA public participation provisions

A. The stimulation of public participation	Low  High			Sources
1. Legality of public participation in EIA	Public participation in EIA is not legally stipulated	_____	Public participation in EIA is legally stipulated	NCEA (2013); ELAW (2013)
2. Cost for the public	The public are in charge of all kinds of costs in the whole participatory process (e.g. costs of obtaining EIA reports, travelling to meetings etc.)	The public are only in charge of a part of costs	The public are free of charge in the whole participatory process	NCEA (2013); ELAW (2013)
3. The requirement to hold public meeting/hearing	Public meeting/hearing is not compulsorily required in EIA and is dependent on the decision of responsible agencies	_____	Public meeting/hearing is automatically required in EIA	ELAW (2013)
B. Transparency to the public	Low  High			
1. Information accessibility	All kinds of project information and EIA documents are not available to the public	Only a part of project information and EIA documents are available to the public	All kinds of project information and EIA documents are available to the public	NCEA (2013); Rowe et al. (2000); Hartley and Wood (2005); Rajvanshi (2003)
2. Information dissemination	Project information and EIA documents are only obtained at one central point (e.g. local government office, agency or ministry office, or library)	_____	Project information and EIA documents can be obtained at one central point, and obtained through local and national media (e.g. newspaper, internet, local radio)	NCEA (2013); Rowe et al. (2000); Hartley and Wood (2005)
C. The level of communication	Low  High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods	One-way information flow from the public to decision-makers or from decision-makers to the public (e.g. survey, questionnaire, public notice or advertisement)	_____	Two-way information flows (e.g. public meetings, public hearings, focus groups, or consensus conferences etc.)	Videira et al (2006)
2. The way to present information	The information is presented in a technical language and is not understandable to lay	_____	The information is presented in a non-technical language and is understandable to	Hartley and Wood (2005)

	people		lay people (e.g. presented in local language)	
3. Timeline for the public to make comments on the EIA documents	Less than 30 days (including 30 days)	Less than 60 days (including 60 days)	More than 60 days	NCEA (2013); ELAW (2013); Hartley and Wood (2005)
4. The form of public comments	Only written submission is accepted or only verbal submission is accepted	_____	Both written and verbal submissions are accepted	NCEA (2013)
5. The freedom of public comments	The public cannot freely express their comments on EIA documents.	_____	The public can freely express their comments on EIA documents.	ELAW (2013); Palerm et al. (2004)
D. Fairness and representativeness	Low High			
1. Types of the public who can take part in the public meetings/hearings, and/or EIA review commission. (The types of the public: local residents, indigenous peoples, selected social categories such as women or the elderly, statutory groups, non-governmental environmental groups, local community groups, nonresident social groups who may use local resources etc.)	Only include one or two types of the public	Include more than two types of the public	Include all types of the public	Wang et al. (2003); (Yang, 2008)
E. The degree of influence on decision-making	Low High			
1. The starting time of public participation in the EIA process stages	Public participation starts in late EIA stages (e.g. in the EIA report review stage or decision-making stage)	_____	Public participation starts in early EIA stages (e.g. in the screening or scoping stage)	NCEA (2013); ELAW (2013); Palerm (2000)
2. Response to public comments in decision-making	Public comments are hardly considered in decision-making	Public comments are to some extent considered in decision-making	Public comments are seriously considered in decision-making	NCEA (2013); ELAW (2013)
3. Right to appeal on final EIA decisions	The public have no right to appeal on final EIA decisions	_____	The public (including like NGOs or any affected person) have right to appeal on final EIA decisions	NCEA (2013); ELAW (2013)

2.5 Theoretical influencing factors

The development of EIA public participation provisions in developing countries can be attributed to various factors. Kolhoff et al. (2009; 2013) have identified the factors influencing the development of EIA legislation in developing countries, including the capacities of key EIA actors, political and administrative system, socio-economic system and natural system etc. Likewise, George (2000) also lists a set of factors leading to the variation in the extent of EIA in different developing countries. These factors include like resources, political and administrative systems, social and cultural systems, and the level of economic development. Since public participation is a necessary component of EIA legislation, the development of EIA legislation will bring about the development of public participation provisions. Therefore, the factors influencing the development of EIA legislation may influence the development of public participation provisions. The research is limited to the factors that influence the development of public participation provisions in EIA legislation. The term 'influence' includes positive and negative influence. That is to say, positive influence can promote the development of EIA public participation provisions while negative influence can constrain the development of EIA public participation provisions. It is expected that the identified factors can - but do not necessarily - influence the development of EIA public participation provisions. Of course, the importance of each factor differs in different countries because of specific contexts of countries. In this section, some literatures have been reviewed to find out theoretical and hypothetical factors which can influence the development of EIA public participation provisions in countries. The list made below is by no means exhaustive. However, these factors listed below are the ones mentioned the most in the existing literature and many previous studies have concluded their relevance. These identified factors will be tested in case studies.

Power distribution among EIA actors

Power distribution among EIA actors is an important factor which can influence the development of public participation provisions in EIA legislation. For example, in China, the power relationship between project proponents, EIA institutions and the public is out of balance. Project proponents and EIA institutions are free to choose the form of public consultation (e.g. questionnaire surveys, consultation of experts, seminars, discussion forums and hearings). In addition, project proponents and EIA institutions control the selection of the public and are responsible for assessing and using public comments (Zhao, 2010). The power of the general public is usually ignored by decision-makers since public participation usually violates project proponents' interests or political interests. However, project developers' and the competent authorities' interests are considered prior to the public interests. As a result, this kind of asymmetric power distribution may in turn hinder the development of public participation provisions in EIA since the project developer and competent authority do want to constrain the roles of the public in the EIA process due to their own interests (Zhao, 2010). Hence, the power distribution among these three sets of actors - project developers, competent authorities and the public affects an enacting coalition's choice of public participation regulations and thus influences the development of public participation provisions in EIA legislation.

Attitude of competent authorities towards public participation

Attitude of competent authorities towards public participation is another crucial factor that can influence the development of public participation provisions in EIA legislation. Generally speaking, positive attitude towards public participation can promote the development of public participation provisions in EIA legislation to empower the public in the EIA process while negative attitude could constrain that development. In the EIA process which is seen as a highly scientific and technical process, the general public is often considered as troublemakers and this negative image is widely held by government officials in China, which has impeded the development of public participation in EIA (Wang et al., 2003). However, with time flies, political leaders and government officials have gradually recognized the weaknesses of Chinese EIA system and held a more positive attitude towards public participation. Hence, more and more public participation provisions are continuously incorporated into Chinese EIA legislations (Tang et al., 2005). In Indonesia, some government officials negatively think that revised regulations regarding public participation are considered counter-productive due to time and money-consuming (Purnama, 2003). Bond et al. (2004) also assert that if authorities are not convinced of the benefits of public participation, then opportunities for public participation tend to be minimized. In the study of Bond et al. (2004), it is found that one of key factors that contribute to successful public participation in EIA is the positive attitude of competent authorities towards public participation. Hence, the situation under which the authorities consider public participation as a positive experience rather than a hazardous chore can create a favorable environment for public participation. This favorable environment can directly promote the development of public participation provisions in EIA legislation.

Political will

Political will also plays an important role in influencing the development of public participation provisions in EIA legislation. In general, high political will to support public participation in EIA will contribute to develop public participation provisions in EIA legislation in order to strengthen the power of the public in EIA while low political will may constrain its development and therefore the role of the public is minimized in the EIA process. However, there is insufficient political priority accorded to public participation in EIA in many developing countries, this lack of political will is undoubtedly the important constraint on developing public participation provisions in EIA (Wood, 2003). For example, in China, at one time there was a rather narrow form of public involvement and no further legal provision for public participation in the EIA procedure (e.g. there was no statutory requirement for the full environmental impact report (EIR) to be made available to the public). The incomplete public participation provisions in EIA legislation was mainly attributed to the low political will at that time (Wang et al., 2003). Purnama (2003) also stresses that the establishment of the system of public participation in EIA is largely dependent on the political will of government leaders and politicians. Especially in countries that are still at an early stage of economic development, the key to develop public participation in EIA is the presence of state actors (e.g. politicians) that have the will to impose stringent laws or regulations on public participation (Purnama, 2003). Hence, political will has a significant influence on developing public participation provisions in EIA.

Social culture of public participation

Public participation culture in societies also has a significant influence on the development of public participation provisions in EIA legislation. Public involvement develops slowly because of the lack of a culture of participation in society (Kolhoff et al., 2009) and this will slow down the development of regulatory framework of public participation. Purnama (2003) also points out that the development of public participation system in EIA is largely dependent on the social culture. For example, in Indonesia, the lack of a modern/formal public participation culture is one constraint for developing public participation in EIA before 2000 (Purnama, 2003). In China, with increasing environmental awareness, more and more public participation emerges in decision-making process and this social culture will in turn put increasing pressure on the government. Therefore, more and more EIA experts and government officials are driven to discuss the necessity and importance of public participation. As a result, a mechanism for public participation is then developed in EIA system and the improvement of public participation provisions is reflected in the EIA Law 2003, which aims to increase the extent of public participation in the EIA process (Wang et al., 2003). In short, public participation provisions in EIA legislation can develop well with the deep roots of public participation culture in society.

Political culture of decision-making

Political culture of decision-making is another crucial factor. The political culture may be more or less open and democratic, and public participation may be valued more or less positively. The political culture can shape the public participation in an evolutionary process (Purnama, 2003). Tang et al. (2005) claim that the EIA process in developing countries is often structured for little public participation and the efforts to reform EIA especially develop EIA public participation can easily run into limits imposed by the underlying authoritarian political culture. Actually, the authoritarian nature of the political system has severely constrained the extent to which public participation can be incorporated into the EIA process. In such political setting, no organized environmental interest groups are allowed to participate in the legislation-making processes (including EIA legislation). As a result, this kind of political culture of decision-making could to a large extent constrain the development of public participation provisions in EIA legislation-making (Tang et al., 2005). For instance, in the Philippines, the overthrow of the authoritarian regime and the emergence of a democratic political culture has brought about a significant change in decision-making process. The change of political culture has incorporated public participation in EIA decision-making. As a result, public participation at all levels of social, political and economic decision making is recognized as a constitutional right under the 1987 Constitution (Cooper et al., 2000). Therefore, the development of public participation provisions in EIA legislation can be largely influenced by political culture.

The reform of political regime

Another important factor is the reform of political regime. There is a chance to develop relevant public participation provisions in EIA legislation and establish institutional arrangements for public participation in the EIA process due to the reform of political regime. For example, in the Czech Republic, since the fall of the communist regime, the political reforms have established legislative provisions and institutional opportunities for public participate in local environmental

decision-making (Carmin, 2003). In Indonesia, regulation No.27/1999 is established during political reform period and aims to improve and provide more democratic circumstances. Afterwards, later revised EIA regulations further enhance the transparency of the EIA process through developing provisions for direct public involvement in the EIA process, and public participation guideline 2000 was then enacted. This development of public participation provisions in EIA legislation is largely influenced by political reform in Indonesia (Pumama, 2003). Similarly, in Taiwan, since the mid-1990s, the reform of political regime-democratization of the political system has gradually led to a restructuring of the EIA system. Democratization has created a new political setting in which elected legislators and executives are subject to public scrutiny. The active involvement of environmental groups in legislative activities could exert considerable influence on a legislative branch used to being mainly dominated by the powerful administrative branch of the government. One significant development is, the 1994 Act requires and encourages civic participation and public consultation at early stages of the EIA process (Tang et al., 2005). Hence, overall the reform of political regime can influence the development of public participation provisions in EIA and the political reform towards a more democratic politics will tend to promote that development.

The type of governance mode

The type of governance mode can largely influence the development of public participation provisions in EIA. Centralized and top-down governance mode is likely to constrain the development of public participation provisions in EIA. In many developing countries centralized and top-down governance mode does occupy a dominant voice in the EIA process since decentralized and bottom-up mode is generally considered a threat to competent authorities. For example, in China, EIA occurred as a top-down administrative instrument and thus is different from western democratic countries in which there is a prevailing concept that the public should be involved in the EIA process (Wang et al., 2003). Therefore, this type of governance mode largely impedes the development of public participation provisions in EIA. Newig (2007) claims that in some countries if a shift of the governance mode is present from a centralized and top-down structure to a more decentralized and bottom-up mode, then citizens and interest community groups could voice their comments in decision-making and this would in turn promote the development of public participation provisions in EIA.

EIA authorities' capacities

EIA authorities' capacities are also considered to be crucial for developing public participation provisions in EIA legislation. Kolhoff et al. (2009) have already claimed that capacities of competent authorities have a large influence on the development of EIA system. The capacities of EIA authorities (including legislative and administrative authorities) include such as the quality of EIA law-makers (e.g. good skills and the ability to learn and adapt to new changes), organizational culture, the cooperation with other authorities etc. can determine whether the ambitions of public participation set in EIA legislation will be achieved to a large extent. For instance, EIA law-makers possessing good ability to learn and adapt to new situations (e.g. the increasing movement of NGOs or other civil groups) can well response to these new changes and timely make relevant adjustments for regulating and organizing public participation. The organizational culture determines what mainstreams are followed in making

EIA legislation. The authority responsible for making EIA legislation needs well cooperation with other authorities for timely feedback of relevant up-to date information (e.g. the situations of implementation of public participation provisions in EIA) in order to improve the legislation. In addition, Sinclair et al. (2000) also highlight the importance of institutional capacity on public participation in the EIA process in India. The ability of government officials to adapt to local environments is limited since the most of officials are from outside of the region and they have no much connection to the area and leave their posts too often. These conditions make it difficult to timely improve public policy (including public participation in EIA) to adapt to new changes (Sinclair et al., 2000). To sum up, in most developing countries, one key to develop public participation in EIA is the capacities of competent authorities to impose stringent laws or regulations on public participation. Limited capacities may restrict the development of public participation provisions in EIA.

The requirement of international organizations

Another important factor is the requirement of international organizations (e.g. international donors and finance institutes). The influence of international organizations on the development of EIA legislation has been considerable. For example, countries such as Yemen, Lebanon, Lesotho and Mauritius are financially dependent on international donors for the implementation of their projects/activities and thus accept the requirements of these donors to incorporate a 'good-practice' EIA legal framework in their own national EIA legislation (Kolhoff et al., 2009). The adopted EIA legal frameworks are based on ones from western democratic countries or the World Bank EIA framework. There is a famous international convention called "the 1998 Aarhus Convention" that is relevant for EIA legal framework. This Convention provides some standard EIA public participation provisions regarding access to information, public participation in decision-making, and access to justice in environmental matters. The incorporation of requirements of the Convention in the legal framework is supported and advocated by international donors and this thus influences the setting and development of public participation provisions in developing countries (Kolhoff et al., 2009). In addition, according to the study of Cooper et al. (2000), in some developing countries the occurrence of public participation in EIA is because international organizations which fund development projects have requirements for public involvement. China is one of the examples. The concept of public participation was first introduced into Chinese EIA system because of the requirement of the Asia Development Bank (ADB) which finances an EIA training program (Yang, 2008; Zhao, 2010). In sum, in many developing countries environmental regulations including EIA public participation provisions have largely been initiated in order to response to the requirement of international organizations and afterwards public participation is made a formal component of the EIA legal mechanism in that countries.

Financial support for public participation

Financial support also has an influence on the development of public participation provisions in EIA legislation. Kolhoff et al. (2009) have demonstrated the importance of financial resources in the development of the EIA regulatory framework. Likewise, regarding the development of public participation provisions in EIA, EIA authorities also require funds to operate. Hence, sustainable financial support is necessary to carry out this task. If the development of EIA

public participation provisions has ample financial support from government agencies or project proponents or other sponsor agencies, then the development of public participation system including the development of legal framework of public participation will be promoted to a large extent. On the contrary, the lack of financial support would constrain the development of EIA public participation provisions. The importance of financial support is already claimed by Wang et al. (2003) that the lack of budget is one factor constraining the development of public participation in EIA.

The level of economic development

The level of economic development also plays an important role in influencing the development of public participation provisions in EIA legislation. Generally speaking, richer countries tend to be more democratic and therefore can promote the development of public participation in the EIA process, while poor countries aim to give priority to develop economy and thus are not likely to take public participation into account in EIA decision-making since public opinions may be against the approval of the development projects which could stimulate economic development. For example, the low level of economic development in some African countries has to a large extent constrained the development of public participation in EIA (Cooper et al., 2000). Sinclair et al. (2000) also claim that the level of economic development probably impinges on public involvement in the EIA process. Hence, the high level of economic development may lead to the development of public participation provisions in EIA while the low level of economic development could restrict the development of public participation provisions in EIA.

Skills of the public

The skills of the public are also important. The skills include like literacy, language, communication and expression etc. These skills can influence public participation process. Poor literacy, language barrier and limited ability to communicate with others can restrict the constructive input of the public in the EIA process. According to the study of Sinclair et al. (2000), it is found that literacy is an important factor affecting public participation in the EIA process in India. Most people living in the nearby area do not come to participate in the environmental impact assessment of the hydro projects because most of them are illiterate (Sinclair et al., 2000). Hence, the poor skills of the public could in turn make competent authorities (EIA policy makers) pay less attention to developing public participation provisions since they may consider the result of public participation is not meaningful even if the complete public participation provisions are present. On the contrary, the public possessing good literacy, language and communication skills can provide useful information and come up with some constructive ideas in the decision-making process, this situation will make competent authorities focus more on public participation and thus drive to develop public participation provisions in EIA.

The promotion of specific historic events

The historic events may be considered as promoters which stimulate the development of public participation provisions in EIA legislation. For example, in China, a significant construction work (known as the anti-seepage project) is carried out in the lakes in the Imperial

Summer Palace (called “YuanMingYuan Park”) which is a heritage garden. In order to protect the famous heritage, the State Environmental Protection Administration (SEPA) tried to conduct public hearing before making its decision. This is the first public hearing in Chinese history. The lessons learnt from the event help competent authorities to improve and revise the later EIA laws and regulations (e.g. the Provisional Measures on Public Participation in Environmental Impact Assessment 2006) (Zhao, 2010). Therefore, the occurrence of historic events in some countries may influence the development of public participation provisions in later revised EIA legislation.

Operationalization of influencing factors

To address the similarities as well as some overlaps among these factors mentioned above, it is necessary to categorize them and combine some together. The categories are not only made to show the similarities and differences between the factors, but also helpful for EIA actors (e.g. EIA law-makers, EIA researchers or practitioners) to further improve provisions for public participation in EIA. For example, if the development of public participation provisions in EIA is mainly attributed to political factors, then it is unlikely that much can be done to develop public participation provisions in EIA in the short run; whereas if the influence on the development of public participation provisions in EIA are largely exerted by other factors like competent authorities’ capacities, then possible changes can be made through enhancing authorities’ capacities. The categorization can be seen in table 4.

Table 4: The operationalization of influencing factors

Category	Factor
Political factors	<ul style="list-style-type: none"> -Political will -Power distribution among EIA actors -The reform of political regime -The type of governance mode
Economic factors	<ul style="list-style-type: none"> - Financial support for public participation -The level of economic development
Cultural factors	<ul style="list-style-type: none"> -Social culture of public participation -Political culture of decision-making
Social factors	<ul style="list-style-type: none"> -The requirement of international organizations -The promotion of specific historic events
Other factors	<ul style="list-style-type: none"> -The skills of the public - Competent authorities’ capacities -Attitude of competent authorities towards public participation

3 Application of the analytical framework

3.1 Introduction

In order to illustrate the usefulness of the analytical framework, it is necessary to apply the framework to analyze EIA public participation provisions in some countries. In this chapter, firstly, the analytical framework is applied to analyze the NCEA database about the profiles of EIA public participation provisions in 36 developing countries. Then, according to the application results of the framework, an analysis about the developmental situations of current EIA public participation provisions in developing countries is given.

3.2 The application in 36 developing countries

As mentioned before, this research has been carried out in connection with an internship at the Netherlands Commission for Environmental Assessment (NCEA). Over last 20 years, the commission has collected much first-hand information on EIA study in different regions all over the world including Central American Region, South American region, African region, Asian region etc. In the current database of the NCEA, the profiles of EIA public participation provisions in 36 developing countries are provided since the development of EIA in developing countries still has many problems and needs to be studied. By taking advantage of these rich data resources, the analytical framework can be applied in these 36 countries. In this research, the analysis of EIA public participation provisions in these 36 countries is mainly based on the database provided by the NCEA, supplemented with the database from Environmental Law Alliance Worldwide (ELAW, 2013). Table 5, 6 and 7 illustrate the results of application of the framework in all these 36 countries. In the tables, the sign "N.A" means the relevant information is lacking in the database of the NCEA, this does not mean that the relevant provisions does not exist in that national EIA legislation, but this needs to be further confirmed. The text "not specified" implies that the relevant provisions are lacking in the existing EIA legislation in the country. In the following tables all results are explicitly or implicitly reflected in the EIA public participation provisions.

Table 5: The application of framework in 14 countries

Country	Belize	Bolivia	Burundi	Cameroon	Central African Republic	Colombia	Albania	Congo DR	Costa Rica	Ecuador	Estonia	Ethiopia	Gabon	Ghana
A. The stimulation of public participation														
A1	•	•	•	•	•	•	•	•	•	•	•	•	•	•
A2	•	•	Not specified	Not specified	Not specified	Not specified	Not specified	•	Not specified	Not specified	•	Not specified	•	•
A3	•	•	•	N.A	Not specified	•	•	•	•	N.A	N.A	N.A	N.A	•
B. Transparency to the public														
B1	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B2	•	•	•	•	Not specified	N.A	•	•	•	•	•	•	•	•
C. The level of communication														
C1	•	•	•	•	Not specified	•	•	•	•	•	•	N.A	•	•
C2	•	N.A	N.A	N.A	Not specified	N.A	N.A	•	N.A	•	N.A	•	N.A	•
C3	N.A	•	•	Not specified	Not specified	N.A	•	•	Not specified	N.A	•	Not specified	•	•
C4	•	•	N.A	•	Not specified	N.A	Not specified	•	•	•	•	N.A	•	•
C5	•	•	•	•	Not specified	•	Not specified	•	•	•	•	•	N.A	•

D. Fairness and representativeness																	
D1	•	•	•	N.A	Not specified	Not specified	N.A	•	N.A	•	N.A	N.A	•				
E. The influence on decision-making																	
E1	•	•	•	•	Not specified	•	•	•	•	•	•	Not specified	•				
E2	Not specified	•	Not specified	•	Not specified	Not specified	Not specified	•	N.A	Not specified	Not specified	•	•				
E3	Not specified	•	•	Not specified	Not specified	•	•	•	•	•	Not specified	Not specified	Not specified	•			

(Sources: NCEA, 2013; ELAW, 2013)

Table 6: The application of framework in another 14 countries

Country	Guatemala	Honduras	Indonesia	Kenya	Macedonia	Afghanistan	Nicaragua	Peru	South Africa	Sri Lanka	Sudan	Suriname	Uganda	Zambia
A. The stimulation of public participation														
A1														
A2	N.A		Not specified		Not specified		Not specified					Not specified		
A3							N.A							
B. Transparency to the public														
B1														
B2														
C. The level of communication														
C1														
C2		N.A	N.A			N.A	N.A		N.A			N.A		
C3					Not specified							Not specified		
C4							N.A	N.A		N.A				
C5							N.A							
D. Fairness and Representativeness														
D1	N.A	N.A	N.A		N.A		N.A					N.A		

E. The influence on decision-making													
E1	•	•	•	•	•	•	•	•	•	•	•	•	•
E2	Not specified	•	•	•	•	•	•	•	Not specified	•	N.A	•	Not specified
E3	•	•	•	•	•	•	•	•	•	N.A	•	•	•

(Sources: NCEA, 2013; ELAW, 2013)

Table 7: The application of framework in another 8 countries

Country	Benin	Bangladesh	Egypt	Georgia	Mali	Mozambique	Palestinian Territories	Yemen
A. The stimulation of public participation								
A1	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
A2	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not specified	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Not specified	N.A	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
A3	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N.A	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
B. Transparency to the public								
B1	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
B2	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	N.A	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C. The level of communication								
C1	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	N.A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C2	N.A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	N.A	N.A	N.A	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	N.A	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
C3	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not specified	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not specified	Not specified	N.A	Not specified
C4	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	N.A	Not specified
C5	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	Not specified	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	N.A	Not specified

D. Fairness and Representativeness													
D1	N.A				•	N.A			•	N.A	N.A	N.A	N.A
E. The influence on decision-making													
E1	•					•	•			•		•	Not specified
E2	Not specified					•	•			•	Not specified	N.A	Not specified
E3	Not specified				•				•	Not specified	Not specified	N.A	Not specified

(Sources: NCEA, 2013; ELAW, 2013)

3.3 Analysis of the results

Through the application of framework to analyze the current state of EIA public participation provisions in 36 countries, we can see the diversity of current situations of public participation provisions in these 36 countries. Some countries like Kenya, Uganda, South Africa and Ghana etc. have more complete public participation provisions while other countries have not, such as Central African Republic and Yemen. Among these 36 countries, most of countries have enacted public participation provisions in their own EIA legislation. Only three countries (i.e. Congo DR, Sudan and Bangladesh) have no provisions for public participation in EIA legislation. However, even though public participation provisions have been enacted in EIA legislation in that 33 countries, most public participation provisions are still missing in EIA legislation in many countries, such as the provisions regarding the cost for the public in participation process, the way to present information to the public, the timeline for the public to make comments on EIA documents, the selection of the public in public meetings/hearings, and the response to public comments in decision-making. What is more, most developing countries lack the guideline for public participation to well organize the public participation process. By comparison, other provisions regarding access to information, information dissemination, public participation methods, the form of public comments, and the EIA process stages in which public participation is required, are more or less stipulated in EIA legislation in most countries.

The results of indicators can be observed from the tables. It can be clearly seen from table 5, 6 and 7 that the public participation is legalized in EIA in 33 countries, excluding Congo DR, Sudan and Bangladesh which have no provisions for public participation in EIA legislation. In terms of the indicators, the results indicate that some provisions have reached a mature developmental stage in many countries. For instance, the indicators “information accessibility” and “information dissemination” have good results in most countries, which means in most countries most of EIA information is required to be available to the public and these information can be reviewed or obtained at certain points and/or by media ways (e.g. newspaper, radio, internet). In addition, the results of the indicator “the direction of information flow” are also good in most countries, which indicate that in those countries the most often selected public participation method is public meeting/hearing so that the direction of information flow is two-way between decision-makers/proponents and the general public. Moreover, the results of the indicator “the starting time of public participation in the EIA process stages” has implied that in most countries public participation is required by law to start early in the EIA stages (e.g. scoping stage). Furthermore, the results of the indicator “right to appeal on final EIA decisions” has revealed that the public have right to appeal on the EIA decisions in many countries. However, by comparison, some indicators imply that some provisions still need to be further improved in these countries. For example, the results of the indicator “cost for the public” have disclosed that in many countries the public are required to pay for a certain fee during public participation process, and even required to undertake the whole costs in some countries like Zambia. In addition, according to the results of the indicator “the timeline for the public to make comments on the EIA documents”, the timeline is

considered not enough (less than 30 days) in most countries. What is more, the indicator “response to public comments in decision-making” has showed that in most countries public comments are addressed in a not very stringent way and thus they are only to some degree considered in decision-making.

In the category “the stimulation of public participation”, the good stimulation of public participation means the countries in which the public participation in EIA is legally required, the public are free of charge in the whole public participatory process, and the public meeting/hearing is automatically required when conducting public participation. According to the results, some countries (e.g. Bolivia, Honduras) in which public participation is to a large extent stimulated since public participation is legally required in EIA legislation, the public do not need to spend any money in attending the public meetings/hearings and in viewing/obtaining EIA documents, and the public meeting/hearing is automatically required when conducting public participation in the countries. On the contrary, there are some countries in which public participation is constrained to a large degree since public participation is not legally stipulated in EIA legislation (e.g. in the countries like Sudan and Bangladesh). In the category “transparency to the public”, high transparency to the public implies the countries in which all kinds of EIA information are required to be available to the public through various ways (e.g. the EIA information and documents can be viewed/obtained at local government office, public library, or be accessible through local and national media such as newspaper, internet and local radio). Based on the results, there are many countries in which the degree of EIA information accessibility and dissemination is high and thus the transparency to the public is enhanced in the EIA process (e.g. in the countries like Kenya, Peru, South Africa, Uganda and Zambia etc.). In the category “the level of communication”, the high level of communication signifies the countries in which the selected public participation methods can promote two-way communication between the general public and decision-makers/project proponents, the EIA information is presented to the public in a non-technical language and is understandable to lay people, the timeline is sufficient for the public to make comments on the EIA documents, the public can freely make comments on EIA documents and submit comments by either written or verbal forms. The results have shown that some countries (e.g. Kenya and Uganda) have good results under the category, which means that in the EIA process the degree of communication between the general public and decision-makers/project proponents is high since all relevant indicators are performed well. In the category “fairness and representativeness”, it reveals the range of the public who participate in public meetings/hearings. The fairness and representativeness implies the wide variety of the public involved in public meetings/hearings (e.g. the types of the public are such as NGOs at various levels, local resident committees, any person affected or likely to be affected by the project, and the general public who are just interested in the proposed project etc.). According to the results, some countries have good fairness and representativeness since the provisions stipulate that all kinds of the public are allowed to participate in the public meetings/hearings in the countries such as Kenya, Egypt and South Africa. In the last category “the degree of influence on decision-making”, the high degree of influence on decision-making means the countries in which public participation can start in early EIA stages (e.g. in the screening or scoping stages), the public comments are seriously dealt with and considered in

decision-making, and any person has right to appeal on final EIA decisions. Based on the results, there are some countries (like Bolivia, Ghana, and Uganda) in which public participation has a potentially significant influence on decision-making since in these countries public participation is required to start early, the public opinions and suggestions are seriously taken into account in decision-making, and everyone has right to appeal on the EIA decisions if they disagree with the decisions.

In sum, the above analysis is derived from the table results which are reflected in the EIA public participation provisions. From the legislative layer, it can be seen that the indicators are performed variously in different countries and thus this reveals different developmental situations of EIA public participation provisions in the countries. Based on the results of the indicators under each category, it can be drawn that the degree of stimulation of public participation, the transparency to the public, the level of communication between the general public and decision-makers/project proponents, the fairness and representativeness of the public involved, and the degree of influence of public participation on decision-making are diverse in different countries. However, in different periods, the indicators have different results since generally speaking, in each country the EIA public participation provisions have been developed gradually. By analyzing EIA public participation provisions in these 36 countries, it can be found that a majority of developing countries still have many incomplete and unclear public participation provisions in their EIA legislation. These incomplete and vague public participation provisions in EIA legislation can influence the implementation of public participation in the EIA process, to a large extent. This has been demonstrated in some previous studies. For example, Yang (2008) reveals that incomplete legal system of public participation in EIA legislation has largely hindered the implementation of public participation in the EIA process in China. Hence, it is necessary to develop and improve public participation provisions in EIA legislation in developing countries, combined with the country-specific contexts. In the next three chapters, three country case studies will be separately in-depth conducted in China, India and Indonesia.

4 Case Study I: China

4.1 Introduction

As what has been mentioned in chapter 1, the second part of this research is to conduct in-depth country case studies through applying the analytical framework to analyze the development process of public participation provisions in EIA legislation, exploring factors influencing the development of EIA public participation provisions and identifying the degrees of influence of these factors, and analyzing the enforcement situation of EIA public participation provisions in that country. Accordingly, firstly the analytical framework in chapter 2 will be applied to give an overview on the development history of public participation provisions in EIA legislation in the country. For this analysis, national legal EIA-related documents are served as the primary source of information. Secondly, regarding to explore factors which influence the development of EIA public participation provisions, identify the influencing degrees of these factors, and analyze the enforcement situation of EIA public participation provisions in that country, the information is mainly collected by means of interviews, supplemented with other relevant literatures. Hence, the chapter is structured as follows: firstly, general background information on the history, politics, economy and culture of China is given in the section 4.2. Secondly, an overview of development stages of EIA public participation provisions in China is provided in the section 4.3, from non-legalization stage to initial legalization stage to development stage to refinement stage. Thirdly, the influencing factors are explained in the section 4.4. Fourth, the implementation situation of existing EIA public participation provisions are presented in the section 4.5, with some suggested improvements given in the section 4.6. The last section 4.7 summarizes the main findings from the empirical analysis.

4.2 Background information

China is officially called “the People’s Republic of China” (PRC), which is a sovereign country situated in East Asia. It is composed of over 22 provinces, 5 autonomous regions, 4 direct-controlled municipalities, and 2 self-governing special administrative regions (Hong Kong and Macau). It has the most population with over 1.35 billion in the world and its total area covers approximately 9.6 million square kilometers (Fact Monster, 2013). The landscape is diverse in China such as plains, plateaus, hills and mountains, deserts, and deltas. As one of four countries with time-honored history and civilization all over the world, China’s civilization runs back more than 5,000 years, which experience several replacements of different dynasties. Finally, the Mao-led Communist Party established the People’s Republic of China (PRC) from 1949 to now (Thomas White International, 2013).

Since 1949, the PRC is mainly ruled by the party “the Communist Party of China” (CPC). In China, the current political and economic system is termed as "socialism with Chinese characteristics" by the national leaders. The PRC government is not only described as socialist and communist, but also as authoritarian. There still exist many restrictions on the internet, academic freedom, religious freedom, and freedoms of assembly and association in many areas (Freedom House, 2013). Moreover, the electoral system is hierarchical and the political

system is only partly decentralized. However, compared to former closed-door policies, since 1970s the administrative climate in China has been less restrictive than before. "Democratic centralism" principle is supported by the Chinese government.

After 1978, economic reform began in China and the economy has been shifted to a more market-oriented economy with a huge flux of foreign investment. Since then, China has been the fastest-growing major economy in the world (National Bureau of Statistics, 2011). According to the International Monetary Fund (IMF), the annual average GDP growth in China was 10.5% between 2001 and 2010. As of 2013, China is being the second-largest economy in the world in terms of nominal GDP, with approximately US\$8.227 trillion in total. In spite of explosive growth, China is still a developing country due to the low per capita income. In global GDP per capita rankings, China ranks behind around 90 countries (total 183 countries on the IMF list) (International Monetary Fund, 2013a).

Because of 5000 years' history, Chinese culture is diverse, complicated and inclusive. The multi-culture can be shown in various ethnic groups and religions. Religion freedom policy is supported by Chinese government all the time. Buddhism, Christianity, Taoism, and Christianity are the main religions in China. The civilization process is usually influenced by various religious movements. The standard language in China is Mandarin, but there are many other major dialects (e.g. Yue, Wu and Min etc.) in different regions. At present, China has a complete educational system from kindergarten to postgraduate school. The ratio of university graduates has become higher and higher in the whole population. In 2010, the population over age 15 who are literate accounts for 94% (The World Bank, 2013a).

In the past several decades, there is no doubt that the economic progress has brought about better life quality. However, this fast economic development has also led to salient environmental degradation and deterioration and therefore brought threats or harms to human health. For instance, there are still several emerging public health issues like respiratory illnesses which are caused by widespread air pollution. By now, environmental pollution (including water, air and waste pollution) has been proving to be a particularly severe health threat. For example, there were around 500 million people who lacked access to safe drinking water in 2005 (Kahn et al., 2007). In 2007, the annual deaths in China because of air and water pollution were reached at 760,000 people.² Hence, faced with the reality of environmental pollution, protecting environment and preventing environmental pollution has been an important task for the Chinese government. Over past three decades, some national laws or policies on environmental protection were introduced since 1970s. Environmental Impact Assessment (EIA) as a crucial component of environmental protection has been developed several times. In EIA legal system, public participation provisions have also experienced several developmental stages in China.

²China 'buried smog death finding', 2007. [News] BBC, 3 July 2007, 12:03 GMT. Available at: <<http://news.bbc.co.uk/2/hi/asia-pacific/6265098.stm>> [Accessed 13 August 2013].

4.3 Developments of EIA public participation provisions

In China, early EIA-related legislation paid little attention to public involvement and there were no legal implications for public participation in the early EIA system. Nowadays, public participation has become a legal component of EIA legislation and many provisions for public participation have been made in EIA legislation. These public participation provisions have been continuously improved. From past to now, with the enactment of several important EIA-related laws, the provisions have experienced several major improvements. Every improvement has marked the further development of public participation provisions, these developments are reflected in the EIA-related laws. In order to give an overview on the developments of EIA public participation provisions in China, this section will use the analytical framework to characterize different development stages of EIA public participation provisions. The division of development stages is based on the major changes of public participation provisions in EIA legislation in different periods. In China, the development of public participation provisions in EIA legislation has experienced from non-legalization stage to initial legalization stage to development stage to refinement stage. More specific, non-legalization stage refers to the period during which public participation is not a legal component in EIA-related legislation, laws, regulations or guidelines. Initial legalization stage refers to the period during which public participation does initially become a legal component in EIA-related legislation, laws, regulations or guidelines. Development stage refers to the period during which public participation provisions in EIA legislation are improved to some degree, compared with initial legalization period. Refinement stage refers to the period during which public participation provisions in EIA legislation are made more specific and comprehensive, compared to development period. In the following, the four stages will be respectively described. Table 11 provides an overview on the developments of EIA public participation provisions in China.

4.3.1 Non-legalization period: 1979-1997

In 1979, “Environmental Protection Law of the People’s Republic of China” was firstly enacted as trial implementation and then was modified in 1989. Afterwards, the revised Environmental Protection Law (EPL) was put into formal use until now. The law stated that all construction projects must implement EIA. EIA was first legally stated as “...*The environmental impact statement on a construction project must assess the pollution the projects is likely to produce and its impact on the environment and stipulate the preventive and curative measures; the statement shall, after initial examination by the authorities in charge of the construction project, be submitted by specified procedure to the competent department of environmental protection administration for approval...*” in article 13 of the EPL. The 1979 EPL is a landmark that implied the starting of the formal EIA application in China. Then in 1981 more EIA procedures were specified in the “Basic Construction Items Environmental Preservation Management Law” (AECEN, 2009). Although the 1989 Environmental Protection Law does not make any provisions for public participation in EIA, public participation in EIA process indeed emerged in the early 1990s since some development projects were funded by international financial organizations and public participation is a fundamental requirement of these organizations. The first emergence of public participation was in an EIA training program which is funded by

the Asian Development Bank in 1991. In 1993, a Notice on Strengthening the EIA Management for Construction Projects, funded by international financial organizations, was issued. In this Circular public participation was first explicitly stressed in China. China's Agenda 21 which was issued in 1994 emphasized the crucial role of public participation in achieving sustainable development. Moreover, the establishment of public participation mechanism was advocated by the State Council in 1996 in order to encourage the public to participate in the environmental protection (Zhang et al., 2012). In short, at this non-legalization stage, public participation is only encouraged but not mandatory for EIA process.






4.3.2 Initial legalization period: 1998-2005

The Regulation 1998 on Environmental Management of Construction Projects adopted public participation as a formal component of EIA legal mechanism (Li et al., 2012; Zhang et al., 2012). In this regulation project developers are required to solicit the opinions of the units and residents who work or live in the nearby location of proposed projects, when preparing the environmental impact report. 1998. Since the late 1990s, EIA in China are recognized more and more important for environmental protection and has been developed as a main regulatory instrument. Until October 2002, a new special EIA Law was passed and adopted on September 2003 (Zhang et al., 2012). The 2002 EIA Law strengthens the legal status of public participation in EIA by clearly stating that "*the State shall encourage relevant units, experts and the public to participate in environmental impact assessment by proper means*". More specific, for construction projects that might cause significant adverse impact on the environment and need to submit the EIA report, public comments need to be collected by means of various participation forms such as demonstration, hearings or any other forms before submitting the project EIA report for approval. The EIA report submitted by the project developers for approval should be including an explanation on whether or not to adopt the public comments.

However, the 2002 EIA Law only provides some principle provisions and does not make specific operational provisions on how to carry out public participation in EIA process (Wang, 2004). For example, the provisions on how to access to information, what kinds of the public can participate, how to participate, how the public can make comments (by written or oral forms), the timeline for making comments, response to public comments, and judicial remedy mechanism (or appeal mechanism) etc. are absent in the law. Furthermore, some existing provisions in the law are very vague. Thus, many construction units make use of these vague terms which benefit them, this may weaken the public right to participate. For instance, regarding to the forms of public participation, the 2002 law states that the construction units can take any other forms in addition to demonstration and hearings to collect public comments. The term "other forms" is not clearly defined and therefore the construction units may use other options like questionnaire by which the degree of openness and communication is lower than demonstration and hearings. Moreover, because the law does not define the range for the public, the construction units usually hand out questionnaires to the public who are not affected or little affected by the construction projects, while the people who are significantly

affected by the projects have no opportunity to express their views (Wang et al., 2005). Although the Interim Measures for Hearing the Administrative License in Respect of Environmental Protection was published in 2004 to make specific procedures for public hearings, the other public participation provisions in EIA legislation still need to be improved and completed. In sum, at this initial legalization stage, public participation provisions in EIA legislation are only made in principle and more efforts need to be done for improving public participation provisions. The following table 8 gives the overview of public participation provisions in EIA legislation at the initial legalization phase from 1998 to 2005. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 1998 and 2005.

Table 8: The overview of public participation provisions in China, as reflected in the EIA-related legislation, laws, regulations or guidelines between 1998 and 2005

	Initial legalization phase from 1998 to 2005			Explanation
A. The stimulation of public participation	Low  High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component of EIA laws. The State encourage relevant units and the public to participate in environmental impact assessment by proper means.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing	X	_____		Public meeting/hearing is not compulsorily required in every EIA process and dependent on the decision of government agency or construction units. They have right to choose demonstration, hearings or any other forms.
B. Transparency to the public	Low  High			
1. Information accessibility				Not mentioned
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)		_____		Not mentioned
C. The level of communication	Low  High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods	X	_____	X	Public participation methods are like demonstration, hearings, questionnaire, or other forms, among which the questionnaire is mainly one-way information flow while demonstration and hearings are two-way information flow.
2. The way to present EIA information		_____		Not mentioned
3. Timeline for the public to make comments on the EIA decision documents				Not mentioned
4. The form of public comments		_____		Not mentioned
5. The freedom of public comments		_____		Not mentioned
D. Fairness and representativeness	Low  High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.				Not mentioned
E. The degree of influence on decision-making	Low  High			
1. The starting time of public participation in the EIA process stages	X	_____		Public participation starts late and happens in the EIA report review

				stage after scoping stage. Public comments are collected after finishing the EIA draft report and before submitting it to the competent authority for approval.
2. Response to public comments in decision-making		X		Although public comments are considered in EIA report and the report includes an explanation on whether or not to adopt the public comments, the public must accept the results even if the comments are neglected in the report.
3. Right to appeal				Not mentioned

(Sources: The Regulation on Environmental Management of Construction Projects 1998; The Law of the People's Republic of China on Environmental Impact Assessment 2002; The Interim Measures for Hearing the Administrative License in Respect of Environmental Protection 2004)

4.3.3 Development stage: 2006-2010

The 2002 EIA Law has many limitations regarding public participation provisions such as the unclear scope, means, and procedures and so on. As a result, the implementation of public participation is difficult in practice. To further institutionalize and enhance public participation in the EIA process, the Provisional Measures on Public Participation in Environmental Impact Assessment (the Provisional Measures) was published by the Ministry of Environmental Protection (MEP) in 2006. This regulation is considered by Chinese EIA scholars and practitioners as a significant breakthrough on the 2002 EIA Law, for it makes more specific provisions regarding how to conduct public participation in the EIA process. Afterwards, the issuance of the Measures on the Disclosure of Environmental Information (for Trial Implementation) in 2007 further completes the disclosure system of environmental information and thus enhances the transparency to the public during the EIA process (Li et al., 2012; Zhang et al., 2012).

These legislative progresses mark that public participation mechanism in EIA is more and more completed at this stage. More specific, there are following several improvements on public participation provisions, compared to the 2002 EIA Law. Firstly, the rights and obligations of three parties (i.e. construction units, environmental protection agencies and the public) are clearly defined. Environmental protection agencies and construction units must disclose environmental information and collecting public comments in the EIA process. Secondly, it is required to take into account geographical, occupational, and professional background etc. in choosing relevant individuals and organizations in order to ensure the fairness and representativeness of the selected public. Thirdly, five kinds of specific forms of public participation (i.e. public opinion survey like questionnaire, expert consultation, forums, demonstration, hearings) are separately introduced. Fourth, the time and duration of collecting

public comment is identified. The duration for soliciting public comments must be not less than 10 days before the construction units submit the EIA documents for examination. Fifth, the relevant EIA information needs to be disclosed in three stages. Specifically, in the screening stage the construction unit shall announce the project name and its summary information; in the scoping and review phase, the construction unit shall publish the potential scope of the environmental impact, the degree of the environmental impact and primary prevention and mitigation measures, etc.; in the appraisal and approval stage, environmental protection agencies should publicize the EIA documents which has been examined and the relevant decisions. Sixth, to enhance the transparency to the public, the relevant EIA information should be announced and obtained by various ways like government office or public media means (e.g. local newspaper, television, or website etc.). Seventh, the public can submit written comments through letter, fax or email ways. Last but not least, the public have right to submit complaints to the competent authorities if the public are unsatisfied with the explanation regarding the public suggestions and opinions, the competent authorities should re-consider the public comments if necessary. From what has been discussed above, at this stage, the public participation provisions in EIA legislation are more or less completed even though some provisions are still unclear and not specific such as the provisions regarding what kinds of the public can participate, whether the public need to pay for relevant costs, and the appeal issues. Overall, further efforts need to be done for making these provisions more specific and easier to implement in practice. The overview of public participation provisions in EIA legislation at the development stage from 2006 to 2010 is displayed in the table 9. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 2006 and 2010.

Table 9: The overview of public participation provisions in China, as reflected in the EIA-related legislation, laws, regulations or guidelines between 2006 and 2010

	Development stage from 2006 to 2010			Explanation
A. The stimulation of public participation	Low \longrightarrow High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component of EIA laws. The State encourage relevant units and the public to participate in environmental impact assessment by proper means.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing	X	_____		Public meeting/hearing is not compulsorily required in every EIA process and dependent on the decision of government agency or construction units. They have right to choose demonstration, hearings or any other forms.
B. Transparency to the public	Low \longrightarrow High			
1. Information accessibility		X		A part of information including project information, the simplified version of EIA report, relevant decisions etc. are available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)		_____	X	The EIA reports can be obtained in designated government office and/or by means of electronic media (e.g. official website).
C. The level of communication	Low \longrightarrow High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods	X	_____	X	Public participation methods are like demonstration, hearings, questionnaire, or other forms, among which the questionnaire is mainly one-way information flow while demonstration and hearings are two-way information flow.
2. The way to present EIA information		_____		Not mentioned
3. Timeline for the public to make comments on the EIA decision documents	X			The duration for soliciting public comments must be not less than 10 days before the construction units submit the EIA documents for examination.
4. The form of public comments		_____	X	Both written and verbal submissions are accepted.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.

D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.				Not mentioned
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages	X	_____		Public participation starts late and happens in the EIA report review stage after scoping stage. Public comments are collected after finishing the EIA report and before submitting it to the competent authority for approval.
2. Response to public comments in decision-making			X	The EIA report must include an explanation on whether or not to adopt the public comments. The public can submit complaints to the competent authorities if the public are unsatisfied with the explanation, the competent authorities should re-consider public comments if necessary.
3. Right to appeal		_____		Not mentioned

(Sources: the Provisional Measures on Public Participation in Environmental Impact Assessment 2006; the Measures on the Disclosure of Environmental Information-for Trial Implementation 2007)

4.3.4 Refinement stage: 2011-2012

At this stage, a marked advance is the promulgation of the Technical Guideline for Public Participation in Environmental Impact Assessment in 2011. This guideline makes more detailed provisions on how to carry out public participation in EIA process and makes many principle provisions more specific, which aims to improve the 2006 Provisional Measures. There are several significant progresses in this guideline. One progress is that the guideline stipulates the categories of the public who can participate in the EIA process from a broad perspective and a narrow perspective, respectively. Moreover, each type of the public is explained in detail. To ensure the fairness and representativeness, the guideline especially stipulates that it should give priority to ethnic minorities, women, disabled and low-income persons in choosing the representatives of the individuals. In addition, the guideline stipulates the participation number of each type of the public (e.g. the affected public, experts). What is also worthy of being mentioned is that the making of a plan of public participation is suggested in order to ensure the effective implementation of public participation. In addition, the guideline firstly states that the EIA report which is open to the public should be written in a non-technical way to make it more understandable for the lay people. Furthermore, the use scope and operational principles of each public participation method is clearly stipulated in this guideline.

In summary, in this period public participation provisions in EIA legislation are almost completed, except the cost issues and appeal issues. The overview of public participation provisions in EIA legislation at the refinement stage from 2011 to 2012 is given in the table 10. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 2011 and 2012.

Table 10: The overview of public participation provisions in China, as reflected in the EIA-related legislation, laws, regulations or guidelines between 2011 and 2012

	Refinement stage from 2011 to 2012			Explanation
A. The stimulation of public participation	Low \longrightarrow High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component of EIA laws. The State encourage relevant units and the public to participate in environmental impact assessment by proper means.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing	X	_____		Public meeting/hearing is not compulsorily required in every EIA process and dependent on the decision of government agency or construction units. They have right to choose demonstration, hearings or any other forms.
B. Transparency to the public	Low \longrightarrow High			
1. Information accessibility		X		A part of information including project information, the simplified version of EIA report, relevant decisions etc. are available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)		_____	X	The EIA report can be obtained in designated government office and/or by means of electronic media (e.g. official website).
C. The level of communication	Low \longrightarrow High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods	X	_____	X	Public participation methods are like demonstration, hearings, questionnaire, or other forms, among which the questionnaire is mainly one-way information flow while demonstration and hearings are two-way information flow.
2. The way to present EIA information		_____	X	The EIA report is presented in a non-technical way which is understandable for the lay people.
3. Timeline for the public to make comments on the EIA decision documents	X			The duration for soliciting public comments must be not less than 10 days before the construction units submit the EIA documents for examination.
4. The form of public comments		_____	X	Both written and verbal submission accepted

5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.			X	All types of the public can apply to participate in the public meetings/hearings as formal attendants or observers.
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages		_____	X	Public participation starts in the scoping stage. Public comments are collected before preparing the EIA draft report.
2. Response to public comments in decision-making			X	The EIA report must include an explanation on whether or not to adopt the public comments. The public can submit complaints to the competent authorities if the public are unsatisfied with the explanation, the competent authorities should re-consider the public comments if necessary. In addition, the consideration result should be fed back to the public.
3. Right to appeal		_____		Not mentioned

(Sources: Technical Guideline for Public Participation in Environmental Impact Assessment 2011)

4.3.5 The development of EIA public participation provisions in China

The following table 11 displays an overview on the development of public participation provisions of EIA legislation in different periods in China.

Table 11: An overview of developments of EIA public participation provisions in China

Different Periods	Initial legalization stage (1998-2005)			Development stage (2006-2010)			Refinement stage (2011-2012)		
A. The stimulation of public participation	Low → high			Low → high			Low → high		
A1		—	X		—	X		—	X
A2									
A3	X	—		X	—		X	—	
B. Transparency to the public	Low → high			Low → high			Low → high		
B1					X			X	
B2		—			—	X		—	X
C. The level of communication	Low → high			Low → high			Low → high		
C1	X	—	X	X	—	X	X	—	X
C2		—			—			—	X
C3				X			X		
C4		—			—	X		—	X
C5		—			—	X		—	X
D. Fairness and representativeness	Low → high			Low → high			Low → high		
D1									X
E. The degree of influence on decision-making	Low → high			Low → high			Low → high		
E1	X	—		X	—			—	X
E2		X				X			X
E3		—			—			—	

4.4 Influencing factors

From what has been analyzed above, we can see that the development of public participation provisions in EIA legislation in China has experienced different periods and now reached an almost comprehensive stage. These developments are influenced by many factors. In this section the influencing factors are identified by means of interviewing some relevant EIA experts from research institutes, universities, and government agencies, supplemented with literature review. As what has been discussed in chapter 2, in this research, the term ‘influence’ can be defined as positive or negative influence. That is to say, positive influence can push the development of EIA public participation provisions while negative influence can hinder that development. In addition, the influencing extents have been divided into three levels: small, medium and large influence. In this way, the influencing extents of identified factors refer to the extents to which the identified factors promote or hinder the development of EIA public participation provisions. The identified factors have been classified into political, economic, cultural, social, and other factors. In the following texts, some phrases like “some interviewees”, “most of interviewees” and “some of interviewees” are explained here. The term ‘some’ refers to of the seven interviewees, the number of interviewees who agree or disagree with this issue accounts for two or three persons. The term ‘most’ refers to of the seven interviewees, the

number of interviewees who agree or disagree with this issue is more than four persons (including four persons).

Political factors

All interviewees agree that the political will of government leaders and politicians has a large or at least medium influence on the development of public participation provisions in EIA legislation in China. During past several years, the Chinese leaders and politicians has gradually advocated democratic society and stressed public participation in decision-making process, one previous premier Jiabao Wen once claimed in the 2004 Government Work Report that the decision-making process should combine public participation in order to ensure that decisions made are more scientific and acceptable (Zhao, 2010). The political will of government leaders and politicians who advocate a more open, transparent, and democratic decision-making process is an important premise for conducting a democratic government in which various decision-making processes take into account public opinions (Interviewee# Cn-R1). Hence, the political will can promote to make provisions for public participation in EIA legislation. Although in the EIA decision-making process public participation is legally required, the development of public participation provisions in EIA is slow and still limited to some extent in China. This is because the political will towards public participation in environmental decision-making process is not very strong in China. One interviewee argues that the government leaders prioritize social order and stability over individual interest since they worry that public participation in EIA process may lead to social disorder and conflict. Thus, it can be seen that the political will of Chinese leaders makes public participation become a necessary component in the EIA process and influences the development of public participation provisions in EIA.

In addition, the power distribution among competent authorities, project proponents and the general public is also stressed by all interviewees since the factor is considered that has brought about large or at least medium effect on the development of EIA public participation provisions. One interviewee claims that *“the power distribution among these parties is out of balance and the general public has a disadvantaged position in the whole EIA process”*. This restricts the development of public participation provisions. Specifically, in China the project developer and the competent authority indeed have central roles in controlling the whole EIA process while the involved public plays a minor role in the EIA process. For example, project proponents and EIA institutions are free to choose the form of public consultation (e.g. questionnaire surveys, consultation of experts, seminars, discussion forums and hearings). In addition, project proponents and EIA authorities are responsible for the selection of the public and the assessment and use of public comments (Zhao, 2010). This kind of asymmetric power distribution in turn hinders the development of public participation provisions in EIA legislation since the project developers and competent authorities do want to constrain the roles of the public in EIA (Interviewee# Cn-R2). As a result, public participation in the EIA process is rather limited in practice due to some vague provisions in EIA legislation. Hence, the power distribution among three sets of actors (i.e. project developers, competent authorities and the public) affects an enacting coalition's choice of public participation regulations and thus influences the development of public participation provisions in EIA legislation.

Moreover, some interviewees also agree that the government-oriented top-down governance mode can to a large extent influence the development of public participation provisions in EIA legislation. Indeed, in China the making of provisions for public participation in EIA legislation is decided by Ministry of Environmental Protection (MEP) and the EIA result of projects and plans is dependent on the decision of competent environmental agency. In the whole EIA process from law-making to law-implementing, the governance mode is top-down and this leads to weaken the notion of public participation in EIA (Interviewee# Cn-R1). Therefore, the development of public participation provisions in EIA legislation is hindered by the top-down governance mode. Wang et al. (2003) also claim that in China EIA occurs as a top-down administrative instrument and thus is different from western democratic countries in which there is a prevailing concept that the public should be involved in the EIA process. The public participation approach is not prevalent since the administrative management in China is organized in a strictly hierarchical way and the government plays a leading role in the top-down management mode (Li et al., 2012). Hence, in China the top-down governance mode is the mainstream in the EIA process and thus can constrain the development of public participation provisions in EIA legislation.

Furthermore, the gradual democratic process in Chinese political system is also mentioned by the interviewees. Most interviewees agree that the reform of political regime in China has brought about large or at least medium influence. In fact, since the People's Republic of China (PRC) is founded in 1949, during several decades the reform of political regime in China has tried to fashion the political system to reflect the democratic society. This reform has led to the introduction of the concept of public participation in decision-making process. Hence, public participation is also incorporated into EIA system and the provisions for public participation are made in EIA legislation. The development of democratic politics has made public participation provisions more sophisticated in EIA. In principle, the concept of public involvement does not conflict with Chinese political regime since the Constitution 1982 clearly states that the country belongs to the people and the government represents wishes of the public. However, in China the political regime is also considered "authoritarian" and one interviewee asserts that this authoritarianism has indeed imposed severe limitations on the extent to which public participation can be incorporated into the EIA system, in order to avoid the political and economic distortions brought about by public participation. Anyway, most interviewees believe that China is undertaking the transition to a more open political system and thus in the future public participation in EIA system will be further promoted in China.

Economic factors

Regarding the level of economic development, some interviewees agree that the economic development can bring a gradual democratic process and thus promote the development of public participation in EIA system, to a large extent. Indeed, since 1978 China implemented the reforming and opening-up policy and achieved the economic transition from state-planned economy to market-based economy, this has promoted the development of national economy and the improvement of life quality. Some interviewees believe that the level of public participation is correlated to the level of local economic development. In China, the developed

cities with a high level of economic development tend to more stress accountability and transparency in public affairs and this can promote the development of public participation provisions in EIA (Interviewee# Cn-R4). Shan and Yai (2011) also demonstrate that rapid economic development and improvements in technology can shift centralized governance regimes to more decentralized governance structure in order to focus more on public interests. In addition, Yang (2008) claims that the public participation provisions in EIA should be designed in terms of the specific economic contexts of the countries, regions or communities. One interviewee also points out that due to the regional imbalances in economic development, local government should be allowed a certain level of discretion to adjust EIA public participation provisions to fit local situations and meet local needs. In sum, the level of economic development has a certain influence on the development of EIA public participation provisions in China.

All interviewees also claim that the financial support has a positive influence on the development of public participation provisions and most of interviewees believe that it has an at least medium effect. Wang et al. (2003) point out that insufficient budget can constrain the development of public participation in EIA. In China, by now in EIA legislation there is no provision regarding the cost issues of public participation. Public participation in the EIA process will incur some costs such as the costs of information announcement, or inviting the public involved in public meetings. Sustainable financial support from competent authorities and project developers is necessary to improve the provisions for public participation in EIA (Interviewee# Cn-R7). The relevant costs should be borne by competent authorities and project developers rather than the public, in order to stimulate public participation. Hence, enough financial resources can push the development of public participation provisions in EIA.

Cultural factors

All interviewees point out that the social culture of public participation has a large or at least medium influence on the development of EIA public participation provisions in China. In fact, in the past, there was no preconceived concept that the public should be involved in the EIA process in China, although the Chinese government and the Communist Party have long advocated the principle of mass participation, with no exception in the environmental protection field. However, the concept “mass participation” is different from the western notion “public participation” on EIA. The term “mass participation” obliges people to cooperate with the government and the Party and support the decisions of the government and the Party. The western notion “public participation” highlights the citizens’ rights to be informed, heard and consulted in decision-making process and imposes obligations on the government to ensure that the public have access to information, to decision-making and to judicial remedy (Zhao, 2010). These differences can imply that social culture of public participation in Chinese history is absent. But in recent years, with increasing awareness of environmental protection, more and more people want to pursue a better living environment and call for public participation in EIA decision-making process. This social culture of public participation is becoming popular and has put increasing pressure on the government. Therefore, a mechanism for developing public participation is increasingly required, in order to increase the extent of public participation in EIA process (Interviewee# Cn-R2). In short, the traditional Chinese social

culture has negatively affected the effectiveness and efficiency of public participation in the EIA process. But modern public participation culture has increasingly promoted the development of public participation provisions in EIA.

In addition, the political culture in decision-making is also highlighted by all interviewees since it is also considered that has a large or at least medium influence on the development of EIA public participation provisions in China. In Chinese history, there is no tradition in China to involve the public in the government decision-making process and all decision-making processes are controlled by the government. Although currently the government has increasingly understood the importance of public participation in strengthening environmental management, particularly in the EIA process, the final decision-making in the EIA process still depends on the discretion of environmental protection bureaus (EPBs). Some projects which give priority to local economy or political interests are so called “Leader projects”, one interviewee claims that EPBs are often subject to pressure from higher-level authorities and thus final decision-making usually does not seriously take into account public comments. This top-down decision-making culture can result in projects going ahead and public participation is merely considered formality (Interviewee# Cn-R2). Hence, this authoritarian political culture in turn restricts the development of public participation provisions in EIA.

Social factors

All interviewees point out that the original development of public participation provisions in EIA is based on the compulsory requirement of international organizations and most of interviewees claim that the influence of international organizations is considered as least medium. Actually, the notion of public participation was first introduced into Chinese EIA system due to the requirement of the Asia Development Bank (ADB) which finances an EIA training program in 1991. Since then, all funded projects which require EIA have to comply with the Chinese laws and the requirements of international funding institutions including the public participation requirement. Afterwards, in 1998 public participation became a formal component of EIA legal mechanism and then has experienced gradual development in EIA legislation. Hence, international initiatives significantly promote the development of public participation provisions in EIA legislation in China.

In China, there is a famous historic event called “YuanMingYuan Hearing”. Some interviewees claim that this historic event has promoted a significant development of public participation provisions in EIA. Specifically, in 2005, an anti-seepage project was carried out in the lakes in the Imperial Summer Palace (called “YuanMingYuan Park”) which is a heritage garden. The potential ecological disasters of the construction project have been concerned later by society since the project would reduce the lake’s self-cleaning capability. In order to protect the famous heritage, hence, EIA was required to conduct. The State Environmental Protection Administration (now is called “Ministry of Environmental Protection” (MEP)) held the public hearing and invited members of the public to participate before making final decision. In Chinese history this is the first public hearing which has provided an open and transparent platform for the hearing participants and the general public to express different voices in the environmental decision-making process (Zhao, 2010). Some interviewees believe that the

Hearing event indeed to a large extent helps MEP to improve the Provisional Measures on Public Participation in Environmental Impact Assessment 2006 since it provides one more channel (i.e. public hearing) for the public to participate in the EIA process. Therefore, the occurrence of this historic event positively influences the further development of public participation provisions in EIA legislation in China.

Other factors

Regarding the EIA competent authorities' capacities in China, almost all interviewees believe that the capacities, such as the professional skills of EIA legislators and administrators, and the communication and cooperation with other Chinese and foreign institutes, have a large or at least medium influence on the development of public participation provisions in EIA legislation. In the study of Wang et al. (2003), during 1990s, the environmental protection authorities including relevant legislative and administrative authorities lacked the well-qualified and experienced staff. Past EIA regulations in China tend to be too vague, especially in public participation section, are not clear or are not comprehensive. This is because that the training of the personnel involved in making EIA laws and implementing EIA, is often deficient. Moreover, according to the study of Li et al. (2012), legal experts in public participation are still insufficient in China. But Chinese government has made effort to improve this situation. For example, the 5th Five-year Plan of Propaganda and Education on the Environmental Legal System is issued to strengthen and promote education on the environmental legal system for staff in environmental legislative authorities and environmental law enforcement agencies (Yang, 2008). The capacities of the EIA legislative authority under MEP have been enhanced in recent years. One interviewee agrees that the EIA legislators with good professional skills and communication skills will have a broad and advanced view on the development of EIA public participation and can well combine actual Chinese situation (e.g. political, economic, cultural and social contexts) when making public participation provisions, rather than directly replicate western participatory mode.

Competent authorities' attitude towards public participation is also emphasized by all interviewees since competent authorities' attitude is considered that has a large or at least medium influence on the development of EIA public participation provisions. With time flies, competent authorities have gradually recognized the importance of public participation in EIA system and thus more and more public participation provisions have been continuously incorporated into Chinese EIA legislations (Tang et al., 2005). Despite that, by now in China competent authorities' attitude towards public participation is still more or less negative since they worry about the negative consequences caused by opening environmental decision-making to the public. Indeed in some EIA cases public participation brings about confusions and chaos, this led to the increase of human resources and financial resources in order to address these confusions and chaos (Interviewee# Cn-R1). Hence, the public is considered as troublemakers and this negative image is so far still held by some government officials in China. In addition, some government officials are suspicious about the quality of the public opinions received and thus they more prefer to accept the views of experts from universities and research institutes and consider experts' opinions as the public concerns (Interviewee# Cn-R2). Moreover, Li et al. (2012) also claimed that some people from

government departments hold a view that public participation in EIA causes risks on achieving anticipated economic targets. Furthermore, Professor Wang Canfa of China University of Politics and Law once proposed to introduce public right to appeal to challenge the legality of administrative decisions into the EIA Law. Unfortunately, Wang's proposal was not adopted by the State Legislature since the legislators worry about the negative impacts of expanding the public right to challenge governmental decisions. These negative impacts are such as a sudden and uncontrollable increase of litigation, and the difficulties in judicial practice due to limited understanding of public interest litigation (Zhao, 2010). Hence, all these negative attitudes have constrained the development of public participation provisions in EIA.

Most of interviewees also claim that the skills of the public including literacy, language, communication and presentation skills can bring a large or at least medium influence on the development of EIA public participation provisions. This view has been demonstrated by previous studies. According to the study of Zhao (2010), there is a direct correlation between public participation and educational background of the public. People with a higher level of education can to a large extent possess good literacy and communication skills and therefore tend to participate more readily and actively in the EIA process since they can provide useful suggestions and opinions. However, there is vast rural population with the low level of education in China, active and effective public participation is unrealistic (Zhao, 2010). Until the end of 2005 there were still 116 million illiterate populations in China (Yang, 2008). The participation of those people at the 'grass-root' level who are lack of literacy and/or communication skills is prevented under the current EIA system (Li et al., 2012). Some interviewees also claim that so far the contribution of the public who have poor skills to EIA is still questioned. Hence, given this situation, the existing public participation provisions exclude people who are illiterate and have low education levels from participating in the EIA process since the provisions stipulate that the public are required to submit their comments in a written way. Hence, the skills of the public in turn influence the making of public participation provisions regarding the selection of the public in the EIA process.

In addition, one more factor not captured by literature review is related to environmental factor. The influence of environmental pollution is also stressed by the interviewees. One interviewee states that "*the levels of environmental pollution are varied in different areas in China and some locations in which environmental pollution is serious need more stringent public participation provisions to be implemented since the desire of public participation in those locations is more strong, compared to other regions in which environmental pollution is less serious*". Hence, the levels of environmental pollution can bring different influences on the development of EIA public participation provisions in different regions.

Overall, according to the responses of all interviewees, among these above factors, all interviewees agree that the political factors, including political will of government leaders and politicians, power distribution among competent authorities, project proponents and the general public, governance mode, have a large or at least medium influence on the development of public participation provisions in EIA in China. Moreover, all interviewees also believe that the cultural factors (e.g. social culture, political culture) can bring a significant

effect on the development of public participation provisions in EIA in China. Furthermore, the attitudes of EIA competent authorities and their capacities are also considered as important influencing factors by all interviewees. In comparison, regarding other factors like the level of economic development, financial support for public participation, the skills of the public, and the promotion of specific historic events etc., all interviewees agree that these factors have an influence. But the interviewees hold different views on the influencing extents of these factors. Some interviewees believe that these factors can bring a medium or large influence while other interviewees state that these factors give rise to small influence. The results are displayed in the following table 12.

Table 12: The extent to which these factors influence the development of EIA public participation provisions in China

Interviewees (China)	Cn-R1	Cn-R2	Cn-R3	Cn-R4	Cn-R5	Cn-G6	Cn-R7
The level of influence of factor (score scale from 0 to 3, '0' means "no influence", '3' means "significant influence")							
Political factors							
Political will of leaders and politicians	2	3	3	3	2	3	2
Power distribution among project proponents, EIA authorities and the general public in EIA system	2	3	3	3	2	3	3
The reform of political regime	3	2	1	3	2	2	1
The type of governance mode (centralized or decentralized)	3	3	2	3	2	1	2
Economic factors							
Financial support for public participation in EIA process	2	2	1	1	3	2	2
The level of economic development	0	2	2	3	2	1	3
Cultural factors							
Social culture of public participation	2	2	3	3	2	3	2
Political culture of decision-making	3	3	3	3	2	3	2
Social factors							
The requirement of international organizations	2	2	2	3	1	2	1
The promotion of specific historic events	1	3	3	3	2	1	2
Other factors							
Competent authorities' capacities (e.g. the skills and abilities of professionals, the number of professionals, organizational culture, the cooperation with other authorities)	1	3	2	3	2	2	3
The skills of the public (e.g. literacy, language, communication and expression ability etc.)	1	2	2	1	3	2	2
Attitudes of competent authorities towards public participation	2	3	2	3	3	2	3

4.5 The implementation of EIA public participation provisions in China

With the issuance of the EIA Law 2002, the Provisional Measures 2006, the Measures on Environmental Information Disclosure 2007, and the Technical Guideline for Public Participation in Environmental Impact Assessment 2011, most of interviewees point out that so far in China the provisions for public participation in EIA legislation have been considered clear and comprehensive, to a certain extent. However, there are still some absent or unclear provisions in the existing EIA legislation, such as the cost issue, information provision, specific timeline for the public to make comments on the EIA documents, the appeal mechanism and judicial remedy mechanism etc. (Interviewee# Cn-G6). These vague or absent provisions indeed influence the practical operation of public participation in EIA. For instance, because of the lack of provision regarding the judicial remedy in the EIA law, one interviewee argues that the public who are affected by the EIA decisions do not have the legal access to the compensation. However, overall, by now the public participation provisions are almost implemented in practice in China since the precondition to the approval of each project requiring EIA has to conduct public participation and contain the results of public participation in the EIA report (Interviewee# Cn-R4). Moreover, even though some provisions are absent in the EIA law, it does not mean that these provisions cannot be implemented in practice. For example, cost issue is not stipulated in the relevant EIA laws or regulations, however, in practice the simplified EIA report is free to the public and the costs of inviting the public involved in the public hearings are borne by competent authorities or project developers (Interviewee# Cn-R3).

So far, in China, in the EIA process there are some highlighted issues in implementing public participation provisions. First, the attitude of EIA workers who conduct public participation is negative and this impedes the implementation of public participation provisions (Interviewee# Cn-R4). One interviewee also argues that *“many EIA workers who are responsible for conducting public participation do not prefer to spend much time and money in public participation and thus they carry out public participation as simple as possible”*. Second, the cooperation of the public is not very positive. One interviewee states that *“many people do not prefer to fill in the questionnaire, and their suggestions and opinions are difficult to be adopted by project proponents even if they fill in the questionnaire. As a result, the public cannot acquire substantial benefits”*. Third, the public especially the directly affected citizens seem to concern more about the compensations for land occupation, rather than the potential environmental impacts of the proposed project (Interviewee# Cn-G6). Fourth, in China the levels of enforcement of public participation provisions are different in varied regions. Some interviewees claim that the level of enforcement is low as a result of the negative cooperation of the public in their regions while other interviewees think that the level of enforcement is high in their areas due to the more strict provisions for public participation and more attention to the public comments when appraising EIA report. Fifth, currently in many cases the selection of the public is mainly limited to experts rather than the general public; as a result, this would limit true public participation (Interviewee# Cn-R7). Sixth, there is no strict mechanism that makes project proponents consider the public opinions seriously (Interviewee# Cn-G6). The project proponents are free to decide whether to adopt the public suggestions and opinions

and consequently, they do not often seriously take into account the public comments. Seventh, the extent of public participation is quite limited since compulsory public participation only applies to a small fraction of construction projects. In China, three types of EIA reports are required in terms of the size of the project. The projects with major impacts need a full EIA report while the projects with minor impacts require a form reporting environmental impacts. Other projects with insignificant impacts only need a form for registering environmental impacts. One interviewee claims that *“only the projects requiring full EIA report have to conduct public participation while public participation is not legally required for other projects requiring EIA report form or EIA registration form”*. Indeed, based on the past experience, many small-scale projects have brought about environmental and social controversies due to the lack of public participation in evaluating the feasibility of the projects (Zhang, 2009). Eighth, the feedback mechanism and supervision mechanism are very weak in the EIA process (Interviewee# Cn-R2). Ninth, the interviewees claim that some barriers to effective implementation of public participation provisions are such as insufficient information campaigns, limited influence of environmental NGOs, the low illegal cost, loose management and weak awareness of public participation. In short, although public participation has become a legal requirement for EIA process in China, many interviewees hold a view that the implementation of public participation provisions is merely considered formality in most EIA cases.

4.6 Suggested improvements

According to the above analysis, some improvements should be done. The interviewees advocate that some provisions for public participation in the Chinese EIA legislation should be complemented or made clearer. This is summarized as follows. First, it should make public participation compulsory for all projects and plans which require EIA documentation including EIA report, EIA forms and EIA registration forms. Second, the provision regarding appeal mechanism should be added into the EIA legislation, the public should have the right to appeal to the courts if they are unsatisfied with the final decisions and are affected by these decisions. Third, the provision on cost issue should be complemented in the EIA legislation to clearly stipulate which costs are borne by whom. Fourth, the provision regarding access to information should be improved to make the full EIA reports available to the public in order to enhance the transparency of information, since the current provision does not impose the obligation on project proponents, EIA institutions and environmental authorities to disclose the full EIA reports, hence, the general public always cannot acquire complete and accurate information about the project. Fifth, as for the time duration of public consultation, the current provision mandates a minimum of 10 days for the public to make comments in public consultation process, due to the complicated and technical nature of projects, the duration is too short for the public and should be extended and clearly stipulated. Sixth, relevant provisions should be established to allow more environmental NGOs to exist and participate in the EIA process.

In addition to improve the existing public participation provisions, other several aspects should be improved. Some interviewees claim that education and training program for public

participation in EIA should be carried out, which aims to change the negative attitudes of EIA workers towards public participation, increase the environmental awareness of the public, and strengthen participation skills of the public. In addition, several interviewees also emphasize to strengthen the feedback mechanism of the public opinions and supervision mechanism for public participation in the EIA process. The supervision and penalty mechanism should be more stringent in order to avoid bribery and power abuse issues. Moreover, the management system should be adjusted with a tendency from top-down to bottom-up structure to promote effective public participation in EIA (Interviewee# Cn-R1). Furthermore, the role of environmental NGOs in implementing public participation provisions cannot be ignored and should be strengthened in practice. One interviewee states that “*the environmental agency should strengthen the cooperation with the environmental NGOs to promote the effective implementation of public participation provisions in the EIA process*”. Last but not least, considering the economic, cultural, social and environmental contexts are diverse in different regions in China, it is better to allow the local governments to make their regional public participation provisions in terms of local situation (Interviewee# Cn-G6).

Overall, since China has a large population with diverse cultures in different areas, it is indeed challenging to provide comprehensive provisions for all varied regions. Despite that, the current public participation provisions still need to be further improved based on the country-specific situation. But at present, the most important thing in China is how to effectively implement these provisions and avoid implementing in a formality way, so as to not only create greater public participation but also ensure true and meaningful public participation in the EIA process

4.7 Interim conclusion

According to the analysis above, we can see the development of public participation provisions in Chinese EIA legislation has experienced from non-legalization stage to initial legalization stage to development stage to refinement stage. Public participation has become a legal component for the EIA process in China. During the developmental periods, it can be seen that the EIA public participation provisions have been improved a lot and as a result, the transparency of EIA information to the public, the level of communication between decision-makers/project proponents and the public, and the degree of influence of public participation on decision-making have been enhanced in the EIA process. These developments are influenced by many factors. The political factors including political will of leaders and politicians, power distribution among competent authorities, project proponents and the general public, governance mode etc. play a crucial role in the development of public participation provisions in Chinese EIA legislation. In addition, the cultural factors (e.g. social culture of public participation) also have a significant effect on the development of public participation provisions in EIA in China. Furthermore, other factors like the attitudes of competent authorities (e.g. government officials) and the capacities of legislative authorities are also very important influencing factors. Overall, the current public participation provisions in Chinese EIA legislation are considered comprehensive and clear, to a large extent. However, there are still some absent or unclear provisions in the existing EIA legislation, such as the cost

issue, information provision, the timeline for the public to make comments on the EIA documents, the appeal mechanism, and judicial remedy mechanism. In the future, these provisions should be made clearer in the Chinese EIA legislation, combined with the country-specific contexts.

Regarding the implementation of these public participation provisions, so far these provisions are almost implemented in practice. But at this moment the implementation is merely considered formality. The barriers to the effective implementation of public participation provisions are such as the negative attitudes of EIA workers towards public participation, the uncooperative citizens, insufficient information campaigns, limited influence of environmental NGOs, the low illegal cost, loose management and weak awareness of public participation etc. Hence, some improvements can be done, like complementing and revising some public participation provisions (e.g. regarding the cost issue, information provision, specific timeline for the public to make comments, and the appeal mechanism), conducting education and training program, strengthening the feedback mechanism and supervision mechanism and so on. In short, the current public participation provisions in Chinese EIA legislation still need to be improved further with combining past experience of public participation and Chinese actual situation. In practice there is a long way to go for achieving effective public participation in the EIA process in China.

5 Case Study II: India

5.1 Introduction

The second case study is conducted in India. In this chapter, firstly, the analytical framework developed in chapter 2 will be used to analyze the development process of EIA public participation provisions in the country. For this analysis, EIA-related legislation, laws, policies, regulations or guidelines are provided as the primary source of information. Secondly, in order to explore factors influencing the development of EIA public participation provisions, identify the influencing extents of these factors, and analyze the implementation situation of the current provisions in the country, the information is mainly gained from the interviews and the interviewees do also offer some relevant documents. Therefore, the chapter is composed of several sections. First of all, general background information including the history, politics, economy and culture of India is given in the section 5.2. Then in the section 5.3, the several developmental stages of EIA public participation provisions in India will be described. Next, the section 5.4 identifies the influencing factors. In the following, the implementation situation of existing EIA public participation provisions will be presented in the section 5.5 and some suggested improvements will be accordingly given in the section 5.6. Lastly, the section 5.7 concludes the main findings from the empirical research.

5.2 Background information

India is officially called “the Republic of India”, which is the seventh-largest country by area and located in South Asia. It has a second-most population with over 1.2 billion people and composed of 28 states and 7 union territories (Library of Congress Federal Research Division, 2004). India has a long and complicated history. Since the early 18th century, the country was under the administration of the British East India Company and the Company brought many changes in political, educational, technological aspects (Robb, 2001; Peers, 2006; Metcalf and Metcalf, 2006). Later on, the Indian Rebellion happened in 1857 and this rebellion led to the dissolution of the East India Company. Eventually the Indian National Congress was founded in 1885. In the following decades, the Indian National Congress pushed for non-cooperation, and the Muslim nationalism upsurged. India became independent in 1947. Then the Constitution was completed in 1950, which marked India as a secular and democratic republic (Metcalf and Metcalf, 2006). Since 1960s, India has remained democratic with civil liberties.

India is a federal country with a parliament which includes a multi-party system. The multi-party system includes six recognized national parties such as the Indian National Congress and the Bharatiya Janata Party (BJP), and more than 40 regional parties (Election Commission of India, 2009). The parliamentary system is governed under the Constitution which states that India is a sovereign, socialist, and democratic country (Dutt, 1998). The government is traditionally considered "quasi-federal" and has a strong center and weak states. In addition, although the constitution does provide the platform for civil participation, it does not provide explicit environmental rights related to public participation. However, it does provide some provisions that can ensure that project proponents do not take the people for granted in environmental matters that affect their lives (Universal Law Publishing, 1998).

Since 1990's, the market-based economic reform has made India step into one of the world's fastest growing economies (Alamgir, 2008). As of 2011, the economy in India is worth US\$1.848 trillion in terms of nominal GDP and the Indian economy has become the tenth-largest economy (The World Bank, 2011a). Over the past two decades, the average annual GDP growth rate reaches 5.8% and arrives at 6.1% during the year 2011-2012 (International Monetary Fund, 2011). However, in spite of the high nominal GDP, the country ranks behind many countries (i.e. ranks 138th in 2012) in the world in terms of nominal GDP per capita (International Monetary Fund, 2012).

Indian cultural history derives from more than 4,500 years and the culture is diverse (Kuiper, 2010). Traditional Indian society is considered "hierarchical". The social stratification is embodied in the Indian caste system and many social restrictions are found in the Indian society. Regarding the Indian education, India has made many progresses in recent years since the primary education attendance rate is increasing and the literacy is expanded to approximately three quarters of the population (The World Bank, 2013b). According to the 2012 Annual Status of Education Report (ASER), 96.5% of all rural 6-14 year olds were enrolled in school while 83% of all rural youngsters between the ages 15-16 were enrolled in school. However, India still needs to focus more on educational quality. Based on the 2011 Census, the person older than the age of 7 who can read and write in any language is considered "literate". The 2011 survey stated that the National Literacy Rate is around 74.07% (Research, Reference and Training Division, 2009).

Over the past several decades, many environmental issues have arisen with the economic and social development in India. The environmental issues are such as air pollution, water pollution, waste pollution, and the degradation of the natural environment. Since 1995, India has achieved significant success in dealing with its environmental issues and improving its environmental quality (The World Bank, 2011b). Despite these progresses, so far environmental pollution still remains a major challenge for India. India has a long way to go to reach better environmental quality. Hence, India has been proactively engaged in addressing environmental issues since the late 1980s and made many legislations, laws and regulations on protecting environment. EIA law is important for environmental management and it has been gradually developed since 1994. Public participation provisions in EIA legal system have also experienced continuous developments in India.

5.3 Developments of EIA public participation provisions

In India, early EIA-related legal documents focused less on public participation and there were no legal provisions for public participation in the early EIA system. At present, public participation has become a legal component of EIA legislation in India. During past several decades, with the issue of several important EIA-related laws, the public participation provisions have experienced several major advances. It can be seen that public participation provisions have been improved in every advance, and these improvements are reflected in the EIA-related laws. In this section, the analytical framework will be applied to analyze different

development stages of EIA public participation provisions, so as to give an overview on the developments in India. The several major improvements of EIA public participation provisions in different periods are provided as a basis to divide development stages. In India, the development of public participation provisions in EIA legislation has undergone from non-legalization stage to initial legalization stage to development stage to refinement stage. Specifically, non-legalization stage refers to the period during which public participation is not legally stipulated in EIA-related legislation, laws, regulations or guidelines. Initial legalization stage refers to the period during which public participation does initially become a statutory component in EIA-related legislation, laws, regulations or guidelines. Development stage refers to the period during which public participation provisions in EIA legislation make more progress, compared with initial legalization period. Refinement stage refers to the period during which public participation provisions in EIA legislation are made clearer and more complete, compared to development period. These four stages will be separately presented as follows. An overview on the developments of EIA public participation provisions in India is provided in table 16.

5.3.1 Non-legalization stage: 1986-1993

In this phase, there are many environmental-related laws or regulations issued to protect and manage environment, such as Water (Prevention and Control of Pollution) Act amended in 1988, Air (Prevention and Control of Pollution) Act amended in 1988, the Forest Conservation Act amended in 1988, and the Wild Life Protection Act amended in 1986 & 1991 etc. Most importantly, due to the Bhopal gas tragedy in 1985, the Ministry of Environment and Forest (MoEF) enacted Environmental Protection Act (EPA) in 1986. This Act is considered as a statutory anchor for environmental protection. However, there is no specific statutory requirement for undertaking an EIA in the EPA 1986 and only one general environmental provision states that government agencies are empowered to require an EIA. Since EIA was not a legal component for the EPA 1986, the decision to grant environmental clearance (EC) depended on the discretion of the MoEF. In this period, EIA was only considered an administrative requirement for some projects which are undertaken by the government or the public sector. The Department of Environment reviewed and audited the project application in terms of economic and technical feasibility reports of the project. In addition, the EPA 1986 is deficient in the field of public involvement since it neither provides for public participation in framing future laws nor does it encourage public involvement in decision-making process regarding development activities. The only provision in the EPA for the public to express concerns is when the environmental pollution is actually caused by the polluter. In spite of this, people can take actions against the polluter only after giving a sixty-day notice to the Central Government. Hence, persons cannot get a quick redress (Kandaswamy, 1998). In short, at this stage from 1986 to 1993, there was no legal requirement for EIA and public participation in environmental-related legislations.

5.3.2 Initial legalization stage: 1994-1996

In 1994, an EIA notification under the EPA 1986 was issued and since then EIA became a formal and statutory requirement rather than an administrative requirement for 29 development projects or activities which are likely to bring about significant environmental and health issues. The EIA notification experienced several modifications within the same year. It does not only specify the type of development activities which require EIA but also stipulate a time schedule for the whole process. Moreover, it also defines the role of the MoEF in the whole EIA process. Furthermore, the EIA notification 1994 ensures the legal requirement for public participation in the EIA process. Specifically, the notification states that an interaction with affected people and environmental groups is required, if necessary. And the relevant EIA information shall be available to the concerned parties and environmental groups on request. The Impact Assessment Agency (IAA) decides if it needs to solicit the public comments through public hearings. Public hearings could be conducted in case of projects having severe environmental consequences. This is left to the discretion of the IAA. The public have access to the summary of EIA reports and Environmental Management Plans at the headquarters of the IAA.

However, prior to 1997, public involvement was still very limited since many specific operational provisions are unclear and this influences the implementation of public participation in practice. As a result, public right to participate may be weakened. For example, the provisions on what kinds of public can participate, how to participate, how the public can make comments (by written or oral forms), the timeline for making comments, response to public comments, and judicial remedy mechanism (or appeal mechanism) etc. are absent in the notification 1994. In sum, at this initial legalization stage, public participation provisions in EIA legislation are only made in principle and more improvements need to be done for specifying public participation provisions in order to be easier to implement public participation in practice. The following table 13 gives the overview of public participation provisions in EIA legislation at the initial legalization phase from 1994 to 1996. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 1994 and 1996.

Table 13: The overview of public participation provisions in India, as reflected in the EIA-related legislation, laws, regulations or guidelines between 1994 and 1996

	Initial legalization phase from 1994 to 1996			Explanation
A. The stimulation of public participation	Low \longrightarrow High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing	X	_____		The conduction of public hearing is dependent on the decision of the IAA.
B. Transparency to the public	Low \longrightarrow High			
1. Information accessibility		X		Only the summary of EIA reports and Environmental Management Plans, are available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)	X	_____		The public have access to the summary of EIA reports and Environmental Management Plans at the headquarters of the IAA.
C. The level of communication	Low \longrightarrow High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods		_____	X	Public comments are solicited through public hearings.
2. The way to present EIA information		_____		Not mentioned
3. Timeline for the public to make comments on the EIA decision documents				Not mentioned
4. The form of public comments		_____		Not mentioned
5. The freedom of public comments		_____		Not mentioned
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.				Not mentioned
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages	X	_____		Public participation starts late and happens in the EIA report review stage if there is a public outcry.
2. Response to public comments in decision-making				Not mentioned
3. Right to appeal		_____		Not mentioned

(Source: The Environmental Impact Assessment Notification 1994)

5.3.3 Development stage: 1997-2005

As of 1997, a major amendment to EIA Notification 1994 was made to introduce Public Hearing (PH) procedure as a mandatory part of assessment procedure in order to ensure the participation of local people and stakeholders in development projects or activities. Since then, it is mandatory for project proponents to conduct public hearing for all projects to which the EIA notification 1994 applies. This notification 1997 is considered a significant advance on the EIA notification 1994 since the provisions for public participation are more specific. The process of conducting public hearing is outlined including the submission of EIA report to State Pollution Control Board (SPCB), the specification for public hearing notice, the member composition of the hearing panel and time period for completing public hearing process. In addition, the notification 1997 emphasizes the fairness and representativeness of the public as states that "*All persons including bona fide residents, environmental groups and others located at the projects site/sites of displacement/sites likely to be affected can participate in the public hearing*" (Public Hearing Notifications, 1997). Besides, the notification further clarifies the term 'persons' into four categories. What is more, the provisions for public access to information are also improved. The executive summary of the project should be written both in English and local languages in order to make local people more understandable. Furthermore, other provisions on the time period for inviting public comments, the forms of public comments are also stipulated. Afterwards, the EIA notification 1994 was revised again in 2000, 2001, 2002, 2003, 2004 and 2005. Overall, until 2005, the public participation provisions in the EIA Notification are more or less completed even though some provisions are still unclear such as the provisions regarding cost issues, how the public comments are dealt with, whether the public have right to appeal if they do not agree with the final decision and how to appeal. Hence, further efforts need to be done for making these provisions more specific. The overview of public participation provisions in EIA legislation at the development stage from 1997 to 2005 is displayed in the table 14. The results are derived from the EIA-related legislation, laws, regulations or guidelines which were issued between 1997 and 2005.

Table 14: The overview of public participation provisions in India, as reflected in the EIA-related legislation, laws, regulations or guidelines between 1997 and 2005

	Development stage from 1997 to 2005			Explanation
A. The stimulation of public participation	Low \longrightarrow High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing		_____	X	It is automatically required to conduct public hearing for all projects to which the EIA notification 1994 applies.
B. Transparency to the public	Low \longrightarrow High			
1. Information accessibility		X		Only executive summary of the project is available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)	X	_____		The public have access to the executive summary at designated offices.
C. The level of communication	Low \longrightarrow High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods		_____	X	Public comments are solicited through public hearings.
2. The way to present EIA information		_____	X	The executive summary of the EIA project is required both in English and local languages.
3. Timeline for the public to make comments on the EIA decision documents	X			Suggestions, views, comments and objections of the public are collected within 30 days from the publication of the notification.
4. The form of public comments		_____	X	The public can submit oral or written briefs to the SPCB.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.			X	All persons including bona fide residents, environmental groups and others located at the projects site/sites of displacement/sites likely to be affected can participate in the public hearing.
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages	X	_____		Public participation starts after scoping stage, before the EIA report is submitted to the regulatory authority.

2. Response to public comments in decision-making				Not mentioned
3. Right to appeal				Not mentioned

(Sources: The Public Hearing Notification 1997; The EIA notification 1994, amended in 2000, 2001, 2002, 2003, 2004 and 2005)

5.3.4 Refinement stage: 2006-2012

After experiencing the mid-term development period, in India the EIA-related legislation has been well established overall, including the public participation provisions. However, although the EIA notification 1994 undertook many amendments in the mid-term development period, until 2005, it still has several weaknesses in the entire environmental clearance process including public participation process. Therefore, in order to improve these weaknesses, a new EIA notification was introduced by MoEF in 2006. There are some differences between the EIA Notification 2006 and the EIA notification 1994. One major difference is that the new one is attempt to decentralize power to the State Governments. Projects in Schedule-1 of the notification 1994 have been divided into two categories. Category A projects require environmental clearance from Central Government (i.e. the MoEF) while Category B projects require the clearance from State Government. The Category B projects are classified into B1 projects requiring EIA study and B2 projects not requiring EIA study. Another advance is that the scoping is defined in the new notification and at this scoping stage the Expert Appraisal Committee (EAC) is responsible for determining the ToR. All Category A and Category B1 projects or activities have to conduct public consultation which is undertaken after completing the draft EIA report and submitting it to the SPCB or Union Territory Pollution Control Committee (UTPCC). The public consultation is composed of two components, a public hearing to ascertain the views of local affected persons and obtaining written responses from other concerned persons. Furthermore, the summary of draft EIA Report can be publically available on the website, without limitation to be available at the government offices or public libraries. Also the full draft EIA report is obtained in Ministry's Library at New Delhi for reference. What is more, another progress in the Notification 2006 is that the SPCBs or UTPCC have to arrange to video film the entire public hearing proceedings, which is also absent in the notification 1994 and is considered as an advance to ensure the appropriateness of public hearing. Moreover, the time period for soliciting public comments is stipulated not less than 30 days which is longer than stipulated time (within 30 days) in the earlier notification.

However, the EIA Notification 2006 also has some weaknesses in the public participation section. For example, it does not clearly stipulate who can attend the public hearing. The term "local affected people" may raise controversy if the public hearing can be attended by interested parties and individuals (e.g. NGOs, experts, civil society organizations (CSOs), or people who are only interested in the project), or is only restricted to the local people who are affected by the project. If the NGOs and CSOs will not be able to participate in the public hearing process, it will significantly affect the efficiency of the public consultation. Moreover, unlike the earlier notification, no quorum is required for attendance to start the public hearing proceedings, which may be misused in practice. Furthermore, there is a provision stating that

the public hearing can be cancelled if the authorities feel the local situation is not conducive for holding public hearing. The term “local situation” is very vague and not defined in the notification and thus this may be misused to further limit the participation of the public. What is more, the provisions regarding whether the public have right to appeal and how to appeal if they do not agree with the dealing results of public comments and final decision for approval, are not stipulated in the notification 2006. As a result, the public have no control over whether or not their suggestions and opinions are incorporated in the EIA report and influence the decision-making process, only reactively accept the results. In addition, the constitution of public hearing panel is only including District Magistrate and a representative of SPCB in the notification 2006 while the notification 1994 stipulates that the panel consists of not only District Collector, representatives of SPCB, representatives of state dealing with the project, but also representatives from panchayats, senior citizens from the area. In short, to some extent, the Notification 2006 seems to weaken public participation.

Subsequently, in 2009, the MoEF issued a draft notification to make some amendments in the EIA notification 2006. One of these amendments is related to the procedure for conducting public hearing. More specific, regarding the access to information, it becomes mandatory for the project proponents to publish their environmental clearance (EC) along with the conditions in the local newspapers or on the website. The MoEF and SEIAA are required to place the EC in public domain. In addition, the project proponent is required to submit a copy of draft EIA report along with the summary EIA report to the Panchayat Union and Urban local Bodies. Moreover, the competent authority should inform the local public about the public hearing by means of radio or television, in places where the newspapers cannot reach. Furthermore, the applicant is required to incorporate and deal with the public concerns expressed in the public hearing before forwarding a copy of the approved proceedings and final EIA report to the regulatory authority. In sum, the EIA notification 2009 better improves the procedure for conducting public participation, based on the notification 2006. The overview of public participation provisions in EIA legislation at this stage from 2006 to 2012 is displayed in the table 15. The results are based on the EIA-related legislation, laws, regulations or guidelines which were published between 2006 and 2012.

Table 15: The overview of public participation provisions in India, as reflected in the EIA-related legislation, laws, regulations or guidelines between 2006 and 2012

	Refinement stage from 2006 to 2012			Explanation
A. The stimulation of public participation	Low \longrightarrow High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing		_____	X	It is automatically required to conduct public hearing for all Category A and Category B1 projects or activities.
B. Transparency to the public	Low \longrightarrow High			
1. Information accessibility			X	The summary EIA report, the full draft EIA report, EMP, and the granted EC permit are all available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMOp and decisions on these documents)		_____	X	The public have access to these relevant EIA documents by means of newspapers, radio, television or website, or at designated offices and libraries.
C. The level of communication	Low \longrightarrow High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods	X	_____	X	On one hand, public hearings ascertain the views of local affected persons, on the other hand, obtaining written responses from other concerned persons.
2. The way to present EIA information		_____	X	The executive summary of EIA report and EMP can be available in a non-technical language.
3. Timeline for the public to make comments on the EIA decision documents		X		The time period for soliciting public comments is required not less than 30 days. The period for completing the whole public consultation process is within 45 days.
4. The form of public comments		_____	X	The public can submit oral or written comments.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.		X		The public hearing ascertains the views of local affected persons. This provision does not state if the NGOs, CSOs or people who are just interested in the project can participate

				in the public hearings.
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages	X	_____		Public participation starts after scoping stage, before the final EIA report is submitted to the regulatory authority.
2. Response to public comments in decision-making			X	After public consultation, the project proponent shall address public comments and make appropriate changes in the draft EIA and EMP. They may alternatively submit a supplementary report to draft EIA and EMP addressing all the public concerns.
3. Right to appeal		_____		Not mentioned

(Sources: The EIA Notification 2006; The EIA Notification 2009)

5.3.5 The development of EIA public participation provisions in India

The following table 16 displays an overview on the development of public participation provisions of EIA legislation in different periods in India.

Table 16: An overview of developments of EIA public participation provisions in India

Different Periods	Initial legalization stage (1994-1996)			Development stage (1997-2005)			Refinement stage (2006-2012)		
A. The stimulation of public participation	Low → high			Low → high			Low → high		
A1		—	X		—	X		—	X
A2									
A3	X	—			—	X		—	X
B. Transparency to the public	Low → high			Low → high			Low → high		
B1		X			X				X
B2	X	—		X	—			—	X
C. The level of communication	Low → high			Low → high			Low → high		
C1		—	X		—	X	X	—	X
C2		—			—	X		—	X
C3				X				X	
C4		—			—	X		—	X
C5		—			—	X		—	X
D. Fairness and representativeness	Low → high			Low → high			Low → high		
D1						X		X	
E. The degree of influence on decision-making	Low → high			Low → high			Low → high		
E1	X	—		X	—		X	—	
E2								X	
E3		—			—			—	

5.4 Influencing factors

According to the analysis above, it can be seen that the development of public participation provisions in EIA legislation in India has experienced different periods and now reached an almost mature stage. Various factors influence the developments. In this section the influencing factors are explored through interviewing some relevant EIA experts from research institutes, universities, and government agencies, combined with literature review. In chapter 2, it has already mentioned that the term 'influence' can be defined as positive or negative influence. Positive influence can push the development of EIA public participation provisions while negative influence can hinder the development. Moreover, the influencing degrees have been divided into three levels: small, medium and large influence. In this way, the influencing extent of identified factors is defined as to what extent the identified factors promote or impede the development of EIA public participation provisions. Like the analysis in China, the identified factors have been categorized into political, economic, cultural, social, and other factors. In the following analysis, some phrases such as "some interviewees" and "most interviewees" are mentioned in the texts. The term 'some' refers to of the seven interviewees, the number of interviewees who agree or disagree with this view occupies two or three persons. The term

'most' refers to of the seven interviewees, the number of interviewees who agree or disagree with this view accounts for more than four persons (including four persons).

Political factors

All interviewees stress the importance of political will of government leaders and politicians since they agree that the political will of government leaders and politicians has brought about a large or at least medium influence on the development of public participation provisions in Indian EIA legislation. Political will is crucial for democratic reform in EIA system. The interviewees consider low political will as a constraint for developing public participation in the EIA process. Actually, in the early time, national leaders and politicians in India usually held a low political will to develop people's participation since they wanted to make the government retain centralized control over decision-making process. This is attributed to the view that the will to increase power of the public is generally considered as a threat to the centralized control maintained by politicians and government leaders (Kandaswamy, 1998). The leaders and politicians believe that any decision they make is best for the people and thus do not seriously consider public participation in decision-making process (Interviewee# In-R7). One interviewee states that "*the primary will of the politicians does try to take maximum advantage of any developmental project to develop national economy*". Hence, in the past the low political will led to insufficient public participation in EIA. However, nowadays, some political leaders have gradually realized that the governmental decisions or policies need to be examined to promote the development of democratization in India. As a result, increased political support and stronger political will has promoted the development of public participation provisions in Indian EIA legislation.

Moreover, almost all interviewees also claim that the imbalanced power distribution among competent authorities, project proponents and the general public has constrained the development of public participation provisions in EIA. In fact, in India, EIA authorities and project proponents play a dominant role in the whole EIA process while the general people have only minor power. Thus, the empowerment of people for playing the role in the EIA process should be strengthened and made more responsible and effective (Interviewee# In-G1). This power imbalance can be explained by late involvement of the public in the EIA process and low weight given to the consideration of public comments. For example, in the past there were several case studies in which public comments were not incorporated in the EIA reports (e.g. the Bangalore-Mangalore pipelines, Gopalpur steel and port projects, Parbati and Allain Duhangan hydroelectric power projects, and Sethusamudram ship channel etc.) (Sinclair and Diduck, 2000; Rajvanshi, 2003; Rajaram and Das, 2006; Martin, 2007). Although nowadays the project proponent is required to address public comments after public consultation, the result regarding how to deal with public comments and whether to adopt their comments in the EIA report is decided by the proponents and this can lead to the overlook of public comments. Furthermore, the final decision for the approval of EIA projects is dependent on the decision of government authorities. Overall, the government authorities and project proponents are still given a lot of power that control the EIA process, which can restrict the development of public participation provisions in EIA.

In addition, the governance mode is also considered by most interviewees that has a large influence on the development of public participation provisions in EIA. At present, the Indian government has attempted to take some initiatives to change the administrative management to ensure decentralization of power and public participation in decision-making process. In spite of this, the top-down governance is still the main mode where the government still maintains centralized control in environmental management, with no exception in the EIA process. The government not only tries to dominate the proponents of the project but also is usually irrespective of public concerns (Interviewee# In-R6). This traditional top-down governance mode in India has constrained the development of public participation provisions in EIA, to a large extent.

Furthermore, there are some interviewees who believe that the reform of political regime in India has brought about an influence on the development of public participation provisions but the influence is not very significant. Although India has been labeled as a sovereign socialist democratic republic country, the democratic process has been suspended once (The Economist, 2008). Actually, in the past three decades the reform of political regime in India is more or less unchanged, so this hardly brings influence on the development of public participation provisions in EIA (Interviewee# In-R7). The instability and fluctuation of politics can slow down the reform of democratic politics in India and thus influence the development of public participation provisions.

Economic factors

Most interviewees claim that the level of economic development has a large or at least medium influence on the development of public participation provisions in EIA. In the past, the overall economic condition in India was very poor and thus the Indian government has given priority to economic development. According to one interviewee's statement, if a country is on the "path of economic development", the development of infrastructure projects are very important and public involvement is thus seen as a nuisance since public participation can delay, block or even stop a project. So at that time public involvements' scope is often minimized (Interviewee# In-R7). With the enhanced economic level in India, environmental issues are consequently more serious and thus the government has concerned more about environmental improvement (e.g. developing EIA system). It is expected that, with the economic development of a nation, the decision-making process would be more decentralized and hence this can increase the scope for public participation in the decision-making. However, so far, this does not work for India (Interviewee# In-R7). Nowadays in India the economic level of some areas is still very low. The members of the project affected community are often the poorest people who reside in hilly, forested and isolated areas in which the EIA projects are often located (Interviewee# In-R6). As a result, the mechanism of public participation may not be feasible in these poor areas. One reason is that the Indian government still focuses more on economic growth, which may impose stress on environmental regulations (e.g. EIA regulations), let alone developing the provisions for public participation in EIA process (Paliwal, 2006). Another reason is that, in the poor areas many people are generally less educated, less literate and thus the degree of public participation is minimized. What is more, one interviewee also claims that "*the local economic condition of the people concerned is an important factor.*

This is especially true coupled with the factor of corruption. In some cases vulnerable local people have been bribed with only food to manipulate the agendas discussed during public participation". Overall speaking, the low level of economic development can hinder the development of public participation provisions.

In addition, financial support for public participation is also highlighted by some interviewees since it is considered that has an influence on the development of public participation provisions in EIA. The EIA Notification 2006 is lacking the provisions regarding financial issue for public participation (Interviewee# In-R7). In fact, this is because there is insufficient or poorly targeted funding support to public participation in Indian EIA system (Interviewee# In-R6). Some previous studies have found that there is a lack of offering financial support (e.g. transport fee) to the indigenous communities to enable them to take part in public hearings. The composition of the public involved is usually limited to concerned government officials, representatives of NGOs, and few senior citizens from the affected regions. This is because that many public hearing venues are in the remote locations and there are not enough funds to support the transport and accommodation fees that the general public need to attend the public hearing (Rajvanshi, 2003; Rajaram and Das, 2006). In this study, some interviewees also claim that so far there is still a lack of financial mechanism to support public participation and the financial support provided by the government and project proponents for public participation in the EIA process remains limited in India. However, the limitation of public participation caused by financial constraints can lead to some problems such as the delays in project schedules, public hostility and sometimes the termination of projects. As a result, the costs to address these problems are often greater than the projected costs of public participation, which has been demonstrated in some cases in India (Kandaswamy, 1998). Hence, the financial support for public participation is very essential and the public participation provisions especially regarding cost issue in EIA legislation will be improved if there is enough financial support.

Cultural factors

Most of interviewees believe that public participation culture in Indian society has a considerable influence on the development of public participation provisions in EIA. In Indian history, public participation has always been insignificant and negligible (Kandaswamy, 1998). The traditional Indian society is hierarchical, which is reflected in the Indian caste system. Many of the social restrictions (e.g. the constraint of public participation) are found in society (Schwartzberg, 2011). As a result, public participation culture is very weak in Indian society due to the lack of participation awareness among the people about environmental and socio-economic issues (Interviewee# In-G1). Even if some villagers are well aware of specific environmental issues and possible solutions, they are reluctant to participate as a result of local weak participation cultural practice (Sinclair and Diduck, 2000). One interviewee claims that *"there is a social culture for participation but when it comes to decision-making on EIA projects, the dominant culture is centralized decision-making"*. In short, in India cultural practice, traditional customs and behavioral norms has constrained the dissemination and development of public participation culture in society, which can indirectly influence the development of public participation provisions in EIA.

Moreover, political culture of decision-making is also emphasized by all interviewees since it is considered that can significantly influence the development of public participation provisions in EIA. Generally speaking, in India any decision-making process (including EIA decision-making process) is mainly controlled by the government and the communication of the decision with the public, if any, is done very late. In other words, public participation only can occur at the late stage (e.g. implementation stage) after project or plan designs have been finalized, leaving little room for change (Kandaswamy, 1998). Especially when it comes to large infrastructure projects, the decision-making is always centralized or at least preferred to be centralized, since the devolution of power to the community is limited (Interviewee# In-R7). Hence, this kind of political culture in decision-making process can restrict the information disclosure and lower the transparency to the public, which has potential to encourage governmental corruption (e.g. bribes) and results in misuse of public resources, with no exception in EIA system. According to Paliwal (2006), corruption has become a crucial consideration in India and the EIA process has to be safeguarded so that the corruption cannot creep into the EIA system (Paliwal, 2006). Hence, political culture of decision-making is very important for the development of public participation and the centralized control culture by the Indian government has an overbearing influence that can impede the development of public participation provisions in EIA.

Social factors

All interviewees agree that the requirement of international organizations has an effect on the development of public participation provisions in Indian EIA legislation and some of interviewees believe the influence of international organizations is significant. In India, the provisions for public participation in EIA are originally developed in order to comply with the requirement of international organizations like World Bank and ADB as donor agencies which fund some Indian projects (Interviewee# In-G1, In-R5). These donor agencies provide guidelines for public participation in EIA and require Indian government to conduct public participation in the EIA process. In fact, many developed and developing countries and international development agencies have experience and documentation on public participation practices in the EIA process. For instance, the complexities of community participation in Northern Pakistan are studied and the World Bank provides criteria for public participation in environmental management (Kandaswamy, 1998). These experience and documentations would help India research public participation examples to develop proper public participation provisions which can be adopted in India. Hence, the requirement of international organizations indeed influences the development of public participation provisions in India, but to a limited degree, since the main power is still controlled by centralized authorities (Interviewee# In-R7).

There are also some interviewees who claim that in India some historic events can bring some lessons that could help to promote the development of public participation provisions in EIA. One interviewee believes that *“in India some evidences show that bad events in nearby areas strengthen the public will to ensure better public participation and this can bring very significant influence, especially at local level”*. Indeed, in India, despite the various restrictions and

inexperience in conducting public participation in decision-making process, public participation has been examined and applied in the areas of rural planning development and natural resource (e.g. watershed, forestry) management (Kandaswamy, 1998). In Indian history, there are several examples which illustrate successful initiatives by local people (including women) in managing and protecting natural resources (e.g. the Arabari Experiment in Joint Forest Management and the Protection of Watershed in Sukhomajri). These examples have demonstrated that public participation is beneficial to both the government and the local communities (Kandaswamy, 1998). Therefore, these participatory experiments can provide valuable lessons for developing appropriate public participation provisions in EIA in India.

Other factors

Most of interviewees also declare that the capacities of EIA authorities (including legislative and administrative authorities) have a large or at least medium influence on the development of public participation provisions in EIA. These capacities are such as the quality of personnel (e.g. the availability of competent professionals), the coordination with other government departments and agencies, technical and analytical skills (e.g. how to properly design public participation provisions in Indian EIA legislation), and the leadership and organizational abilities of senior environmental staff etc. In India, poor quality of EIA professionals (e.g. EIA legislators) and a lack of coordination between agencies are once highlighted in Indian EIA system, which has made the EIA legislative frameworks inadequate at one time (Paliwal, 2006). Generally speaking, the lack of experience, lack of training and poor staff skills among governmental institutions (e.g. legislative institutions) can to some extent constrain the development of public participation provisions in EIA system. Actually, at early time, a senior government official from the MoEF once pointed out that there was a lack of experience in the area of public participation since the integration of public participation within EIA system was a fairly new notion in India at that time. Thus, EIA authorities were unsure of public participation procedures to be followed and therefore the provisions for public participation in EIA are very vague and have many loopholes at early time (Kandaswamy, 1998). In fact, professionals who are familiar with the techniques and methodologies of public participation in Indian EIA system are quite less in early period (Kandaswamy, 1998). Hence, the capacity-building of EIA authorities in terms of staff, technical expertise, leadership, and coordination abilities is very important for developing proper public participation provisions in Indian EIA system and effectively implementing these provisions. For example, making inter-organizational coordination smoother would facilitate EIA information and experience sharing process, which can enrich and update the relevant knowledge of EIA professionals. It is also necessary to offer education and training to the staff of IAA and SPCBs. The enhancement of competent authorities' capacities can definitely help to promote the development of public participation provisions in EIA.

The attitude of competent authorities towards public participation is also stressed by all interviewees since they believe that the competent authorities' attitudes can significantly affect the development of public participation provisions in EIA. The interviewees claim that positive attitudes towards public participation can promote the development of public participation provisions while negative attitudes can restrict the development. In India, by now the

government officials in competent authorities have held a neutral attitude towards public participation since on one hand they have recognized the importance of public participation (e.g. sharing of traditional knowledge) in EIA, on the other hand, they view public participation as a potential threat to their authority. The officials who hold a negative attitude think that public participation is not only expensive and time-consuming in EIA, but also can cause conflicts and bring unreasonable demands (Interviewee# In-G1). The neutral or negative attitudes slow down or even hinder the development of public participation provisions in EIA as the competent authorities do not want to over-increase the power of the public in the EIA process and still worry about the potential negative consequences brought about by public participation.

In addition, almost all interviewees believe that the influence of the skills of the public on the development of EIA public participation provisions is large or at least medium. In fact, in India, many EIA projects are usually located in rural areas where the local people are generally less educated and less literate (Kandaswamy, 1998). Illiteracy could be a significant limitation for public participation if the literature and project-related information is provided in written forms, even though it is written in the local language. Thus, the level of literacy is very important (Interviewee# In-R3). In addition, the expression and communication ability is also limited for many local people since their languages and dialects are diverse in different regions and the use of non-local language can constrain public participation (Kandaswamy, 1998). Because of the poor skills of the public (e.g. illiteracy, limited communication ability), relevant provisions for public participation need to be adjusted. For instance, due to illiteracy, the EIA information can be announced through audio and visual media in order to remove the disadvantages of illiteracy. This progress enables illiterate people to better understand project related information. Furthermore, due to communication barrier caused by language issues, it is required to include communicators and interpreters in the public consultation process to contribute to effective communication with local people. However, overall, the poor skills of the general public in turn to a large extent hinder the development of public participation provisions in EIA since even if the provisions are made more comprehensive, the general public still lack the good abilities to effectively implement these provisions .

In addition to above influencing factors, there are some other factors identified by the interviewees. One factor is related to public environmental awareness. Increasing public environmental awareness is very important. If people are ignorant for environmental issues and do not know how to best take advantage of public participation process to protect their environmental benefit, this weak awareness can constrain the development of public participation in EIA (Interviewee# In-R3). Another factor is related to population pressure. One interviewee declares that *“some areas with less population usually cause less hassle for the proponents to conduct public participation process while other areas with large population make public participation process extremely sensitive in nature”*. Therefore, population pressure can in turn influence the development of public participation provisions in EIA. One more factor is related to resource availability and ecosystem benefits. Some projects might influence the availability of local resources (e.g. lead to local species loss) and local ecosystem benefits. This has an influence on the development of public participation

provisions since local people need to know how the projects would change the availability of resources and influence ecosystem benefits (Interviewee# In-G1). What is more, increasingly serious environmental issues like the global warming and natural calamities are also important considerations which have led to the world-wide campaign for public participation in all developmental activities (Interviewee# In-R6). Lastly, risk to public health is also a crucial factor to be considered. The operation of some projects may bring about risks to health due to environmental pollutions caused by these projects. For example, some chemical industry projects may cause pollution of ground water, which can harm public health due to polluted drinking water (Interviewee# In-G1).

In sum, according to the responses of all interviewees, among these above factors, all interviewees agree that political factors like political will of government leaders and politicians, the power distribution among EIA competent authorities, project proponents and the general public, and the governance mode have brought about a considerable influence on the development of public participation provisions in EIA in India. Moreover, all interviewees believe that cultural factors including social culture and political culture can significantly affect the development of public participation provisions in EIA in India. Furthermore, economic factors like the level of economic development, the attitudes of competent authorities towards public participation, the capacities of EIA authorities (e.g. availability of technically competent professionals, quality of leadership, organizational ability etc.), and the skills of the public are all considered important by the interviewees. By comparison, regarding other factors such as financial support for public participation, and the promotion of specific historic event, some interviewees insist that these factors have medium or large influences while other interviewees believe that these factors bring small influence. The results are displayed in the following table 17.

Table 17: The extent to which these factors influence the development of EIA public participation provisions in India

Interviewees (India)	In-G1	In-G2	In-R3	In-G4	In-R5	In-R6	In-R7
The level of influence of factor (score scale from 0 to 3, '0' means "no influence", '3' means "significant influence")							
Political factors							
Political will of leaders and politicians	3	2	3	3	3	3	2
Power distribution among project proponents, EIA authorities and the general public in EIA system	0	2	3	2	3	2	3
The reform of political regime	3	0	3	1		3	0
The type of governance mode (centralized or decentralized)	3	3	3	1	2	3	2
Economic factors							
Financial support for public participation in EIA process	3	0	2	1	2	2	0
The level of economic development	3	3	2	1	2	2	3
Cultural factors							
Social culture of public participation	3	2	2	2	2	2	1
Political culture of decision-making	2	2	2	3	3	2	3
Social factors							
The requirement of international organizations	3	3	2	1	3	1	2
The promotion of specific historic events	1	3	1	1	2	1	2
Other factors							
Competent authorities' capacities (e.g. the skills and abilities of professionals, the number of professionals, organizational culture, the cooperation with other authorities)	3	3	1	2	2	3	1
The skills of the public (e.g. literacy, language, communication and expression ability etc.)	2	3	1	2	2	3	2
Attitudes of competent authorities towards public participation	3	3	2	2	2	3	3

5.5 The implementation of EIA public participation provisions in India

Since the EIA Notification 1994 was issued, the EIA Notification has experienced many revisions and the latest revision was in 2009. With the issuance of the EIA Notification 2009, most of interviewees point out that so far in India the provisions for public participation in the EIA notification have been considered to a large extent comprehensive and clear. However, some interviewees also claim that the details of some public participation provisions are still not very clear, and some provisions are too complicated and thus not easy for the public to understand. The unclear details can influence the implementation of these public participation provisions in practice. For instance, the description of public consultation method (i.e. the procedure for public hearing) is not enough detailed in the EIA notification and this might bring about some unexpected issues when conducting public hearings (Interviewee# In-R3, In-R5). In addition, in the EIA notification there is no detailed description of how public inputs provided at the public hearings is going to be used in the decision-making process (Interviewee# In-R3). Actually, the notification only roughly stipulates that after public consultation, the project

proponent shall address public comments and make appropriate changes in the draft EIA and EMP. They can alternatively submit a supplementary report to draft EIA and EMP addressing all the public concerns. As a result, in practice the public comments can be dealt with in a tokenism way. Moreover, the starting time of public participation in the EIA process stages is late (i.e. public participation is required to start after scoping stage, before the final EIA report is submitted to the regulatory authority) and it only happens once in the whole EIA process (Interviewee# In-G2, In-R3). One interviewee argues that *“EIA legislation in India does not include public participation at the scoping and impact assessment stages. Public participation is a one-time activity after the draft EIA and EMP is prepared, which is presented to the interested parties”*. Similarly, another interviewee also claims that *“most of the time public participation is held after the EIA report is nearly prepared, which makes integration of issues quite ineffective”*. Furthermore, the appeal issue is not mentioned in the EIA Notification and this may cause confusions and chaos in practice, even though the appeal issue is mentioned in other laws or regulations which state that the public have right to appeal on EIA decision and National Green Tribunal mainly deals with such matters (Interviewee# In-G2, In-G4). Last but not least, the cost issue is also absent in the EIA Notification. The EIA Notification does not clearly state which costs should be borne by whom (e.g. the project proponents or the public) and thus this would bring difficulties for conducting public participation process. In fact, in practice bearing the costs of participation (e.g. travelling fee, accommodation fee etc.) revolves around the power balance among different stakeholders (Interviewee# In-G4). In other words, the situations regarding to bear costs are various in different cases. In some cases local people who are strongly concerned about the project are willing to go to attend the public hearings even without getting any financial support while in other cases local people are not willing to bear the costs for attending the public hearings if they cannot gain the financial support from project proponents, due to poor economic condition or other reasons (Interviewee# In-G1, In-R6). Overall, despite some unclear provisions, the current public participation provisions in the EIA Notification are almost implemented in practice but the extent of effective implementation is only medium or even low (Interviewee# In-G4, In-R6, In-R7). One interviewee claims that *“the existing public participation provisions in Indian EIA legislation are implemented effectively to a moderate extent”*. Another interviewee however states that *“the implementation of existing public provisions in Indian EIA legislation can be termed as ‘poor’ as there is...”*.

In India, currently in the EIA process there still exist some highlighted issues in implementing public participation provisions. First, one issue is related to the implementation of public hearing procedure. In Indian EIA process, the public hearing has to be organized by the respective SPCB on request from the project proponents. Although the procedure for public hearings (including the communication and organizational process) is outlined in the EIA legislation, the procedure laid down is not followed in each case in practice. In addition, news regarding the public hearing (e.g. the time and the venue of conducting public hearing) does not reach interested parties or persons in a timely manner and therefore the public are not informed timely, this will hinder the public review process (Interviewee# In-G2, In-R5). One interviewee claims that *“even though the provisions are clear, all the stakeholders are not informed timely to attend the public hearings”*. Second, another issue is related to monitoring

system. In India the EIA monitoring mechanism is quite weak. One interviewee argues that *“there is a lack of effective monitoring system to follow up the EIA process (including public participation process)”*. Third, the provision regarding access to information is actually not implemented effectively in practice since in some cases the access to basic EIA information is not occurring and for example, the EIA report is not accessible to the public in many cases, although the legislation stipulates that all relevant EIA documents should be available to the public (Interviewee# In-G2, In-R5). Fourth, another issue is related to public litigations. One interviewee argues that *“in India some developmental projects are exempted from public hearing, which leads to public litigations filed on the project proponents and thus delaying the project timeline and making the projects exceeding the financial budgets”*. Fifth, there is also political intervention or bias in the conduct and interpretation of public hearings (Interviewee# In-G2, 2013). Sixth, one more issue is related to the contents (e.g. salient features and characteristics of the project, the project impacts) of EIA documents which are provided for the public. Even if the legislation states that the EIA information (e.g. the executive summary of EIA report and EMP) should be available to the general public in a non-technical language, so far the EIA documents which are provided for the public are at times too voluminous and technical. Layman may find it very difficult to make any useful sense of these documents full of technical jargons (Interviewee# In-R3, In-R5). Seventh, the attitude of project proponents, EIA practitioners, consultants and regulatory authority towards public participation and their sensitivity towards the issue has given rise to barriers to the effective implementation of public participation provisions (Interviewee# In-R3). One interviewee believes that *“the implementation of existing public participation provisions in Indian EIA legislation can be termed as ‘poor’..., the barriers are politicians, bureaucrats and the proponents who do not want the public participation”*. Eighth, general public awareness about environmental issues and public rights (e.g. environmental right) is still quite low, which can constrain the effective implementation of public participation provisions in EIA (Interviewee# In-R3). One interviewee declares that *“the implementation of existing public participation provisions in Indian EIA legislation can be termed as ‘poor’ as there is no strong public awareness about EIA”*. Ninth, the time period for soliciting public comments is stipulated not less than 30 days in the EIA legislation. However, one interviewee claims that *“even though the provisions are clear, in practice the public do not get enough time to respond to the proposed project and provide the suggestions and opinions”* (Interviewee# In-R6). Lastly, other problems are such as the manipulation of vulnerable people, lack of understanding of key issues, lack of political will, corruption issue, and economic incentive, which are also highlighted on many occasions. These problems can impede the effective implementation of public participation provisions in EIA (Interviewee# In-R3, In-R7). In sum, at present in India the implementation of public participation provisions in EIA is considered to a large extent tokenism and the extent of effective implementation of these provisions is low.

5.6 Suggested improvements

According to the above analysis, some improvements should be done. The interviewees advocate that some provisions for public participation in Indian EIA legislation should be made clearer or adjusted. This is summarized as follows. First, the provision regarding public consultation method (i.e. public hearings) should be made more detailed in the EIA legislation, for instance, the category of the public who can attend the public hearing should be widened (including not only local affected people, but also interested persons and NGOs etc.) to ensure the representativeness of different stakeholders (Interviewee# In-G2, In-R3, In-R5). One interviewee states that *“the public consultation methods can be dealt with more detail. I do think more emphasis on methods is desired to represent the different kinds of public involved”*. Second, in the EIA legislation there should provide clearer and stricter description of how public inputs provided at the public hearings is going to be used in the decision-making process, rather than rough stipulation, making public comments dealt with in a serious way (Interviewee# In-G2). Third, the provision regarding appeal issue should be outlined in the current EIA Notification, which explicitly states that any person has right to appeal on EIA decisions and National Green Tribunal mainly deals with such matters. Fourth, the provision regarding cost issue should be also stated in the current EIA Notification, clearly stating which kinds of costs are borne by whom (e.g. the project proponents, the responsible authorities or the public) to avoid some negative phenomenon (e.g. bribery, corruption issue, conflict issue) when conducting public participation process. Fifth, the current EIA legislation stipulates that a minimum notice period of 30 days shall be provided to solicit public suggestions and opinions. The provision regarding the timeline for the public to make comments should be extended in order that the public have enough time to response to the proposed projects. Sixth, the provision regarding the starting time of public participation in the EIA process stages should be adjusted. Public participation should be conducted earlier like at the scoping stage and held before the preparation of the full report (Interviewee# In-G2, In-R3, In-R5, In-R7). One interviewee claims that *“public participation is much more than public hearing. Public participation should be initiated earlier in the project development for better acceptability from the public and for identifying opportunities both for the project proponents and the local inhabitants in an amicable manner”*.

In addition to improve the existing public participation provisions, other several aspects should be improved. First, there should be a more stringent mechanism to ensure the news regarding the public hearing (e.g. the time and the venue of conducting public hearing) to reach interested parties or persons in a timely manner. Second, there is a need to establish effective monitoring tools to monitor and evaluate the implementation of public participation provisions in the EIA process, in order to assess and fill the gap between the policy and the implementation (Interviewee# In-G1). Third, the mechanism about access to EIA information must be strengthened in each EIA project so that the general public is always able to acquire information they need (e.g. not only basic project information, but also EIA report and monitoring report). Fourth, it is very necessary to establish a funding mechanism for conducting public participation in the EIA process (Interviewee# In-R5). Fifth, in practice the responsible authorities should double check the contents of the EIA documents which will be

provided for the public in order to avoid technical terminology which is difficult to understand for the public. Sixth, education and training program for public participation in EIA should be carried out, which aims to change the negative attitudes of government officials and EIA practitioners/consultants towards public participation, enhance their capacity building, increase the awareness of the public about environmental protection and human rights, and strengthen participation skills of the public (Interviewee# In-G1, In-G4, In-R6, In-R7). Seventh, the supervision mechanism should be strengthened to avoid the manipulation of vulnerable people and the corruption issue in this process. Eighth, in practice the range of the public involved must be widened as far as possible when selecting the stakeholders to participate in the public hearing, in order to consider various environmental, economic and cultural values of different kinds of public involved (Interviewee# In-G2, In-R3, In-R5). One interviewee declares that *“focus group discussions should be carried out involving local NGOs, heads of villages and local bodies, then knowledge about local phenomena can be captured during such discussions”*. Lastly, there also should establish a mechanism to ensure public participation in the EIA follow-up process (Interviewee# In-R7).

In short, according to the country-specific situation, in India the current public participation provisions still have some room for improvement, but at present, the most important thing in India is how to effectively implement these provisions, in order to ensure meaningful public participation in the EIA process.

5.7 Interim conclusion

From what has been discussed above, it can be seen that the development of public participation provisions in Indian EIA legislation has experienced several periods, from non-legalization stage to initial legalization stage to development stage to refinement stage. Public participation has become a legal and important component for the EIA process in India. These developments have made the public participation provisions more and more specific and comprehensive. Therefore, the information transparency to the public has been enhanced, the communication between the general public and decision-makers/proponents has been promoted, and the influence of public comments on decision-making has also been more significant. There are many factors influencing these developments. The political factors like political will of leaders and politicians, the power distribution among project proponent, EIA authorities and the general public, governance mode etc. play an important role in the development of public participation provisions in Indian EIA legislation. In addition, the cultural factors (e.g. social culture of public participation, political culture of decision-making) have also a significant influence on the development of EIA public participation provisions in India. Furthermore, other factors like the level of economic development, the attitudes of government officials and EIA consultants towards public participation, the capacities of competent authorities, and the skills of the public are also very crucial for the development of EIA public participation provisions. Overall, until now, the current public participation provisions in Indian EIA legislation have been considered to a large degree comprehensive. However, there are still some provisions for public participation in Indian EIA legislation need to be improved and made clearer, such as the cost issue, public consultation methods, the starting time of public

participation in the EIA process stages, the timeline for the public to make comments, and appeal issue. In the future, these provisions should be made more detailed or adjusted in Indian EIA legislation based on the country-specific contexts.

Regarding the implementation of the public participation provisions, so far the provisions are almost implemented in practice in India. But at this moment the implementation is not very effective and has been largely considered tokenism. The barriers to the effective implementation of public participation provisions are such as low environmental awareness of the public, negative attitudes of government officials and EIA practitioners/consultants towards public participation, weak monitoring system, political intervention and bias, the manipulation of vulnerable people, lack of understanding of key issues, lack of political will, corruption issue, and economic incentive etc. Hence, some improvements can be done, like adjusting and revising some public participation provisions (e.g. regarding the cost issue, the starting time of public participation in the EIA process stages, the timeline for the public to make comments, public consultation methods, and appeal issue etc.), establishing a more stringent mechanism for conducting public hearings (e.g. to ensure news about public hearing to timely reach the general public), conducting education and training program, strengthening supervision mechanism, establishing a funding mechanism for conducting public participation, widening the range of stakeholders involved, strengthening monitoring system and so on. In sum, the current public participation provisions in Indian EIA legislation still need some improvements, according to past experience of public participation and Indian actual situation (e.g. economic, social, and geographical situations). In practice the country still needs to make more efforts to achieve effective and meaningful public participation in the EIA process.

6 Case Study III: Indonesia

6.1 Introduction

Indonesia selected as the third case is studied in this chapter. Similar to the case studies in China and India, this chapter aims to conduct in-depth study in Indonesia through applying the analytical framework developed in chapter 2 to analyze the development process of public participation provisions in EIA legislation, exploring factors which influence the development of EIA public participation provisions and identifying the degrees of influence of these factors, and analyzing the implementation situation of existing EIA public participation provisions in the country. During the study, the information is mainly collected by interviews, supplemented with documentation analysis (including EIA-related legal documents and literature). Hence, the chapter comprises several parts as follows: firstly, country background information about its history, politics, economy and culture is outlined in the section 6.2. Secondly, the section 6.3 will describe different development stages of EIA public participation provisions in Indonesia, from non-legalization stage to initial legalization stage to development stage to refinement stage. Thirdly, the influencing factors are identified in the section 6.4. Fourth, the section 6.5 will present the implementation situation of existing EIA public participation provisions and then some suggested improvements are given in the section 6.6. Lastly, the main findings of the empirical research are summarized in the section 6.7.

6.2 Background information

Indonesia is officially called “the Republic of Indonesia”, which is a country located in Southeast Asia and Oceania. It is an archipelago containing around 17,508 islands, totally 34 provinces with a total population of over 238 million people (Asia-Europe Meeting, 2010). Indonesia becomes the fourth most populous country in the world. Since the 7th century, Indonesia has been an important trade region with diverse foreign cultural, religious and political models (Taylor, 2003; Vickers, 2005). In 1945, Indonesia became independent and then was moved from democracy towards authoritarianism. Since 1970s, Indonesia stepped into “New Order administration”, the “New Order” was still authoritarian and widely accused of corruption and political opposition was suppressed (Vickers, 2005). Indonesia experienced a hardest hit in the late 1990s because of Asian financial crisis and this led to popular protest against the New Order. Since 1998, democratic process in Indonesia has been strengthened (e.g. a regional autonomy program).

Indonesia is a presidential representative democratic republic. The governmental system is defined as “presidential system with parliamentary characteristics”. At the national level, the People's Consultative Assembly (known as MPR) is the highest legislative body (U.S. Department of State, 2012). In this unitary country, power is mainly concentrated in the central government. Indonesia has 34 provinces which are subordinate to central policy and regulation, although each province has its own legislature and governor. From 1998 on, Indonesia has experienced several political reforms.

The Indonesian economy is market-based. In 2012, Indonesia has become the second fastest G-20 major economy, only behind China. As of 2012, the nominal GDP was approximately US\$ 878.198 billion in Indonesia, however, the nominal per capita GDP was estimated only US\$ 3,592.285 (International Monetary Fund, 2013b). Since 2007, national economy has increased by over 6% per year (International Monetary Fund, 2013c), and even during the Global Financial Crisis, the economy performed well in Indonesia and its GDP still increased by about 6% in 2012 (Hitipeuw, 2012). However, the economic growth is uneven in different Indonesian areas. The poorest regions and the richest areas have a large gap of economic development. As of 2012, the population who live below the poverty line was estimated about 11.7% (Central Intelligence Agency, 2013).

Indonesia is a multi-cultural country in which it has about 300 distinct ethnic groups (Expat, 2013). The Javanese is the largest ethnic group which plays a politically and culturally dominant role, accounting for 42% of the total population (Kingsbury and Aveling, 2003). Indonesia has 742 different languages and dialects among which Indonesian is the official national language (Merdekawaty, 2006). In addition, the religions in Indonesia are also various including Muslim, Islam, Roman Catholicism, Protestantism, Hinduism, Confucianism, and Buddhism. Among these religions, Muslim is the largest religion which accounts for around 88% of the population, while Christian occupies about 10% and roughly 2% is Hindu and Buddhist (Expat, 2013). Moreover, media freedom has increased considerably in Indonesia and the internet usage has reached 22.1% of the population in 2012 (Internet World Stats, 2013). Regarding the Indonesian education, due to the governmental efforts in improving educational infrastructure and increasing educational expenditure, according to the World Bank, until 2002, only 2% of the population whose age is between 15 and 24 could not read, and in 2009, the adult literacy rate reached 90.4% in Indonesia (Frederick and Worden, 2011).

Overall, nowadays Indonesia has made many progresses in its economic, cultural and social aspects. Despite that, due to its high population and rapid urbanization and economic development, at present the country has brought many serious environmental issues like large-scale deforestation, overexploitation of natural resources, air pollution, traffic congestion, solid waste management, and reliable water supply etc. Indonesia has been the third largest emitter of greenhouse gases (GHGs) in the world because of the serious deforestation and the destruction of peatlands (Higgins, 2009). Hence, Indonesia has been proactively engaged in addressing environmental issues by making relevant environmental legislations, laws and regulations on managing and controlling environmental issues. Environmental Impact Assessment (EIA) as an important instrument of environmental protection has been gradually developed since 1980s. Public participation provisions in EIA legal system have also experienced gradual developments in Indonesia.

6.3 Developments of EIA public participation provisions

In Indonesia, public participation was paid little attention to in early EIA-related laws and regulations, and it lacked legal implications in the early EIA system. Currently public participation has become a legal component of EIA legislation in Indonesia. The public participation provisions have been continuously improved in EIA legislation. In the past several decades, with the enactment of several important EIA-related regulations, the provisions have made much progress, which has symbolized the further development of public participation provisions. These progresses are reflected in the EIA-related regulations. In order to give an overview on the developments of EIA public participation provisions in Indonesia, this section will apply the analytical framework to present different development stages of the public participation provisions. Like China and India, in Indonesia, the development stages have been divided into four periods, from non-legalization stage to initial legalization stage to development stage to refinement stage, according to the major changes of public participation provisions in EIA legislation in different periods. Specifically, non-legalization stage is defined as the period during which public participation is not legally required in EIA-related legislation, laws, regulations or guidelines. Initial legalization stage is defined as the period during which public participation does initially become a legal element in EIA-related legislation, laws, regulations or guidelines. Development stage is defined as the period during which public participation provisions in EIA legislation are advanced to some degree, compared with initial legalization period. In the refinement stage public participation provisions in EIA legislation are considered to a large extent clear and comprehensive, compared to development period. Next, these four stages will be respectively introduced. Table 21 displays a picture about the developments of EIA public participation provisions in Indonesia.

6.3.1 Non-legalization stage: 1980-1992

Since 1980s, environmental regulations have high priority in policy-making process in Indonesia. In 1982, the legislation- the 1982 Environment Act referring to Basic Provisions for Management of the Living Environment was issued in Indonesia, which aims to govern environmental management. The Act stipulates the roles of the Environment Ministry and the environmental agencies at central and provincial levels. It stresses that the environmental management needs the coordination between the Minister for the Environment and central and regional governments, in accordance with national legislation. In addition, the term “environmental impact assessment” (known as AMDAL) is first officially introduced in this Environmental Act. The Environment Act states that *“Every proposed plan which is considered likely to have a significant impact on the living environment has to be accompanied with EIA that carried out according to government regulations”* (The Environment Act, 1982, Article 16). But this Act does not provide details for implementing EIA and thus EIA cannot be put into operation. In the next step the Government Regulation 29 of 1986 regarding Environmental Impact Analysis was enacted in order to establish EIA procedures (e.g. the procedures for the establishment of EIA review commissions). Then, the Environmental Impact Management Agency (known as BAPEDAL) was founded in 1990, with a mandate to establish and supervise the framework for EIA process in order to improve the implementation of EIA. In sum, due to the establishments of the BAPEDAL and EIA commissions in many departments and

agencies, the mechanism of EIA implementation developed well during the period but still needs to be improved in the future. However, in this period, public participation is not statutory for EIA process. EIA in the Act No.4/1982 and the Regulation No.29/1986 does not have provisions for direct public participation since little attention was paid to public participation at that time. Under the Regulation No.29/1986, only NGOs as a member of the EIA review commission have right to participate during the EIA review stage. There is no opportunity for the public to participate in the EIA process and project information is difficult to be available to the public (Purnama, 2003).

6.3.2 Initial legalization stage: 1993-1998

In 1993, a new EIA regulation (the Government Regulation NO.51/1993) was enacted to revise many provisions of the Regulation No.29/1986, with attempts to clarify some ambiguities of the Regulation No.29/1986 and make the EIA procedures clearer and more specific. The regulation streamlines screening procedure, shortens the time period for EIA review, and introduces a standardized Environmental Management Plan (EMP). For example, the 1993 regulation clearly define the term “significant impact” which would require EIA. In addition, it states the responsibilities of AMDAL commissions are to evaluate and make recommendations on AMDAL documents including terms of reference (TOR) for EIA (known as KA), the EIA report (known as ANDAL), environmental management plan (known as RKL), environmental monitoring plan (known as RPL). Under the regulation NO.51/1993, public participation has formally become a legal component in the EIA process. As what it states in article 22 that, “*All proposed businesses or activities for which an environmental impact analysis (AMDAL) must be carried out shall be disclosed to the public by the authorized government agency*” (The Government Regulation NO.51, 1993, article 22). Moreover, the regulation stipulates that the EIA documents and the approvals shall be open to the public and the public can express their suggestions and opinions orally and/or in writing to the AMDAL commission before the EIA documents are approved and the final decision is made.

However, although the regulation NO.51/1993 asserts the openness of EIA documents to the public and invites the public to make comments on the proposed plan, there lacked specific guidelines regarding public participation procedures. For instance, provisions on how the public take part in (through which methods), the time period for making comments, how to deal with public comments, and whether the public have right to appeal and how to appeal etc. are still absent in the regulation. In addition, only NGOs as the public representatives can become a temporary member of AMDAL commission and thus have right to participate in the EIA review stage even though they did not always represent the public. What is more, public participation only may happen after EIA scoping stage and/or after finishing EIA report. The public only can express their concerns through the EIA commission which is hardly responsible for representing the public interest (Purnama, 2003). In sum, at this stage, despite some improvements on the provisions for public participation in the Government Regulation NO.51/1993, it is still seen insufficient and more efforts need to be done for further improving the public participation provisions. The overview of public participation provisions in EIA legislation at this stage from 1993 to 1998 is displayed in the table 18. The results are based

on the EIA-related legislation, laws, regulations or guidelines which were issued between 1993 and 1998.

Table 18: The overview of public participation provisions in Indonesia, as reflected in the EIA-related legislation, laws, regulations or guidelines between 1993 and 1998

	Initial legalization phase from 1993 to 1998			Explanation
A. The stimulation of public participation	Low High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public				Not mentioned
3. The requirement to hold public meeting/hearing		_____		Not mentioned
B. Transparency to the public	Low High			
1. Information accessibility			X	The public can obtain all kinds of information (e.g. a copy of the EIA report, environmental management plan, environmental monitoring plan and the decisions issued on these three documents).
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)	X	_____		The public have access to these EIA documents at the authorized government agencies.
C. The level of communication	Low High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods		_____		Not mentioned
2. The way to present EIA information		_____		Not mentioned
3. Timeline for the public to make comments on the EIA decision documents				Not mentioned
4. The form of public comments		_____	X	Both written and verbal submissions are accepted.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.	X			Although every person can convey their opinions to EIA commission, only NGOs as the public representatives can become a temporary member of EIA commission and have right to participate in the EIA review stage.
E. The degree of influence on decision-making	Low High			
1. The starting time of public participation in the	X	_____		Public participation only may happen

EIA process stages				after EIA scoping stage and/or after finishing EIA report.
2. Response to public comments in decision-making		X		After the public provide inputs to the AMDAL commission, the commission shall take into account their views before the EIA documents are approved.
3. Right to appeal		_____		Not mentioned

(Source: The Government Regulation NO.51/1993)




6.3.3 Development stage: 1999-2008

During this period, in order to response to the demand for more public participation and address the ambiguity of public participation in the previous regulations, a further revision of EIA regulations was the promulgation of the Government Regulation No.27/1999 in 1999. This regulation marks a good advance on the public participation provisions in EIA since more specific and inclusive provisions for public participation are introduced. Additionally, a decree No.Kepka 08/2000 concerning public involvement and information disclosure in EIA was then enacted in 2000, providing the technical guidelines for public participation. The transparency of the EIA process is thus enhanced due to the more specific provisions of public participation in the EIA process.

Overall, there are many improvements on public participation provisions in the Regulation No.27/1999 and Decree Kepka 08/2000, compared to previous regulations. For instance, the decree Kepka 08/2000 clearly states the objectives and principles of public participation in EIA. Moreover, the terms such as interested community, affected community and concerning community are distinguished. Compared to previous period (prior to 1999), at this stage one significant progress is the representativeness of the public in the EIA commission, with no longer only limitation to NGOs. This decree Kepka 08/2000 stipulates that the local community affected by impacts is also eligible to become a member of the EIA evaluating commission. This is an opportunity for the public to provide comments through being a member who sits on the EIA commission. Another advance is the starting time of public participation in the EIA process stages. Before all EIA documents are prepared, the public have right to offer their opinions or responses to the responsible agency within 30 days since the announcement of the proposed project. Then when preparing a TOR for the EIA study, the project proponent is required to hold public consultation (e.g. through public meetings) and attach the consultation results to the TOR document. Furthermore, after all EIA documents including EIA report and Environmental Management Plans are prepared, before the proponent submits these documents to the EIA commission for further review, the public have one more opportunity to voice their opinions and recommendations. What is more, other provisions on access to information, public participation methods, the time period for the public to make comments etc. are also stipulated in the Regulation No.27/1999 and Decree Kepka 08/2000. From what has been analyzed above, since 1999, the opportunities for public participation in EIA are increased and therefore the effectiveness of public participation is enhanced. In this period,

the provisions for public participation in EIA legislation are considered to some extent comprehensive and specific, in spite of some vague provisions. The overview of public participation provisions in EIA legislation at this stage from 1999 to 2008 is displayed in the table 19. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 1999 and 2008.

Table 19: The overview of public participation provisions in Indonesia, as reflected in the EIA-related legislation, laws, regulations or guidelines between 1999 and 2008

	Development phase from 1999 to 2008			Explanation
A. The stimulation of public participation	Low  High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public		X		The costs arising from the announcement of the project to the public, and inviting community representatives involved in EIA will be borne by the project proponent and the responsible government agency.
3. The requirement to hold public meeting/hearing	X	_____		Public consultation is automatically required in EIA process, but the form of public consultation (e.g. public meetings) is dependent on the decision of project initiator.
B. Transparency to the public	Low  High			
1. Information accessibility			X	All EIA documents including EIS, EMP and EMoP, public suggestions, opinions and responses, and decisions on environmental worthiness of the project will be available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)		_____		Although the general information of project can be obtained by printed media (e.g. newspaper) and electronic media (e.g. television, radio or website), the regulation does not state where and how the EIA documents like EIS, EMP, EMoP and decisions on these documents can be obtained.
C. The level of communication	Low  High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods		_____	X	During public consultation process, public participation methods are public meetings, seminars, discussion and other methods that can be used for two-way communication.

2. The way to present EIA information		_____		Although the information of project is announced in a non-technical language, the regulation does not state if the EIA documents (e.g. EIA report, EMP, EMoP etc.) are presented to the public in an easy-to-understand way.
3. Timeline for the public to make comments on the EIA decision documents		X		During initial EIA preparation, the public should offer comments within 30 days from the date of announcement of the project. During preparing TOR, EIS, EMP and EMoP, the public are allowed to give opinions and suggestions within 45 days.
4. The form of public comments		_____	X	Both written and verbal comments are accepted.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.		X		Although every person can convey their opinions to EIA commission, only NGOs and local affected communities can become members of EIA commission and participate in the EIA review stage.
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages		_____	X	Public participation starts in the EIA scoping stage and also takes place in the preparation and review stage of EIA report.
2. Response to public comments in decision-making		X		All suggestions and opinions from the public must be reflected in the drawing up of TOR, EIS, EMP and EMoP and can be considered in the decision-making, but the final decision is decided by the competent authority.
3. Right to appeal		_____		Not mentioned

(Sources: The Government Regulation No.27/1999; The Decree Kepka 08/2000)

6.3.4 Refinement stage: 2009-2012

Since 2009, with the enactments of Act No.32/2009 concerning Environmental Protection and Management, Government Regulation No.16/2012 concerning Guideline for Compiling Environmental Document, Government Regulation No.17/2012 concerning Guideline on Public Participation in EIA, and Government Regulation No.27/2012 concerning Environmental Permit, the provisions for public participation are more specific and comprehensive so that the implementation of public participation in EIA process is more effective rather than superficial. There are some changes regarding the provisions for public participation in EIA in this period, compared to previous period. One change is related to the cost issues which are clearly stipulated. Based on Government Regulation No.16/2012, the proponent is responsible for bearing the cost of public notice and public consultation and inviting the representatives of the affected community in EIA review stage. There is no fee to access to EIA documents but the public need to bear the cost of making a copy of EIA documents. Responsible government agencies are responsible for the cost of publishing the application and issuance of environmental permit. In addition, the Government Regulation No.16/2012 states that the relevant EIA information can be presented in local and national languages, or in non-technical ways, which enhances the level of information communication since the lay people is more understandable and can provide useful comments. Another progress is related to the appeal issue. According to the Act No.32/2009, it explicitly states that the public including community members and environmental organizations have the right to appeal on the EIA Decision. Furthermore, the Government Regulation No.17/2012 stipulates various forms of public consultation including workshop, seminar, focus group discussion, public meeting (formal and informal), public hearing, interactive dialogue, and any other methods that can facilitate two- way communication.

However, not all revisions are considered an advance. For example, according to Government Regulation No.27/2012, the time duration for the public to make comments after the first announcement of the project information is shortened from previously stipulated 30 days to 10 days. In addition, the public are allowed to give advice, opinions and responses on the proposed project related to the application and decision of environmental permit within 10 working days. It is questioned whether a 10-day time duration is enough for the public to learn the project and give useful opinions and suggestions. Also there is no provision concerning the time duration for public consultation, the regulations only stipulate that public consultation must be done before formulating TOR. Moreover, regarding information dissemination, in terms of these new regulations, the provision concerning the announcement of the business and/or activity plan is more detailed. The Business and/or activity plan is announced through multimedia like printed media (e.g. newspapers, brochure, pamphlet, or banner) and electronic media (e.g. websites, radio, television, social network, SMS), or billboard in environmental agency. However, the EIA documents (e.g. EIS, EMP, EMoP, and the decisions on these documents etc.) are obtained only at certain places like environmental agencies. Hence, the transparency of EIA information is only slightly raised.

Overall, now in Indonesia the provisions for public participation in EIA legislation are considered comprehensive and clear, to a large extent. Next Indonesia should ensure the effective implementation of public participation provisions in EIA process. The overview of public participation provisions in EIA legislation at this stage from 2009 to 2012 is displayed in the table 20. The results are based on the EIA-related legislation, laws, regulations or guidelines which were issued between 2009 and 2012.

Table 20: The overview of public participation provisions in Indonesia, as reflected in the EIA-related legislation, laws, regulations or guidelines between 2009 and 2012

	Refinement stage from 2009 to 2012			Explanation
A. The stimulation of public participation	Low High			
1. Legality of public participation in EIA		_____	X	Public participation is a legal component in EIA process.
2. Cost for the public		X		The public need to bear some costs like the cost of making a copy of EIA documents and the appeal cost.
3. The requirement to hold public meeting/hearing	X	_____		Public consultation is automatically required in EIA process, but the form of public consultation (e.g. public meetings) is dependent on the decision of project initiator .
B. Transparency to the public	Low High			
1. Information accessibility			X	All EIA documents including EIS, EMP and EMoP, public suggestions, opinions and responses, and decisions on environmental worthiness of the project will be available to the public.
2. EIA Information dissemination (EIA documents including EIS, EMP, EMoP and decisions on these documents)	X	_____		Although the general information of project can be announced through printed media (e.g. newspaper) and electronic media (e.g. television, radio or website), the EIA documents like EIS, EMP, EMoP and decisions on these documents are obtained only at certain places like environmental agencies.
C. The level of communication	Low High			
1. The directions of information flows between the public and decision-makers, based on selected public participation methods		_____	X	During public consultation process, public participation methods are workshop, seminar, focus group discussion, public meeting (formal and informal), public hearing, interactive dialogue, and any other methods that

				can facilitate two- way communication.
2. The way to present EIA information		_____	X	The EIA-related information can be presented to the public in local and national languages, or in non-technical ways.
3. Timeline for the public to make comments on the EIA decision documents	X			The public are allowed to give advice, opinions and responses within 10 working days.
4. The form of public comments		_____	X	Both written and verbal comments are accepted.
5. The freedom of public comments		_____	X	The public freely express comments on EIA documents.
D. Fairness and representativeness	Low \longrightarrow High			
1. Types of the public who can take part in the public meetings/hearings and/or EIA review commission.		X		Although every person can convey their opinions to EIA commission, only NGOs and local affected communities can become members of EIA commission and participate in the EIA review stage.
E. The degree of influence on decision-making	Low \longrightarrow High			
1. The starting time of public participation in the EIA process stages		_____	X	Public participation starts in the EIA scoping stage and also takes place in the preparation and review stage of EIA report.
2. Response to public comments in decision-making		X		All suggestions and opinions from the public must be reflected in the drawing up of TOR, EIS, EMP and EMoP and can be considered in the decision-making, but the final decision is decided by the competent authority.
3. Right to appeal		_____	X	The public (including NGOs and any affected person) have right to appeal on the EIA decision.

(Sources: Act No.32/2009 concerning Environmental Protection and Management; Government Regulation No.16/2012 concerning Guideline for Compiling Environmental Document; Government Regulation No.17/2012 concerning Guideline on Public Participation in EIA; Government Regulation No.27/2012 concerning Environmental Permit)

6.3.5 The development of EIA public participation provisions in Indonesia

The following table 21 gives an overview on the development of public participation provisions of EIA legislation in different periods in Indonesia.

Table 21: An overview of developments of EIA public participation provisions in Indonesia

Different Periods	Initial legalization stage (1993-1998)			Development stage (1999-2008)			Refinement stage (2009-2012)		
	Low	→	high	Low	→	high	Low	→	high
A. The stimulation of public participation	Low → high			Low → high			Low → high		
A1		—	X		—	X		—	X
A2					X			X	
A3		—		X	—		X	—	
B. Transparency to the public	Low → high			Low → high			Low → high		
B1			X			X			X
B2	X	—			—		X	—	
C. The level of communication	Low → high			Low → high			Low → high		
C1		—			—	X		—	X
C2		—			—			—	X
C3					X		X		
C4		—	X		—	X		—	X
C5		—	X		—	X		—	X
D. Fairness and representativeness	Low → high			Low → high			Low → high		
D1	X				X			X	
E. The degree of influence on decision-making	Low → high			Low → high			Low → high		
E1	X	—			—	X		—	X
E2		X			X			X	
E3		—			—			—	X

6.4 Influencing factors

From what has been discussed above, we can see that the development of public participation provisions in EIA legislation in Indonesia has experienced different stages and now the public participation provisions have been considered almost comprehensive. The developments are attributed to the influence of various factors. This section will find out the influencing factors. As what has been mentioned in chapter 2, the term 'influence' contains positive and negative influence. Positive influence can facilitate the development of EIA public participation provisions while negative influence can impede the development. In addition, the influencing extents of factors have been divided into three levels: small, medium and large influence. In this way, the influencing extents of factors refer to the extents to which the factors stimulate or hinder the development of EIA public participation provisions. The identified factors have been classified into political, economic, cultural, social, and other factors. In the following analysis,

some phrases like “some interviewees” and “most of interviewees” are mentioned in the texts. The term ‘some’ refers to of the all interviewees, the number of interviewees who agree or disagree with this opinion occupies two or three persons. The term ‘most’ refers to of the all interviewees, the number of interviewees who agree or disagree with this opinion is more than four persons (including four persons).

Political factors

All interviewees agree that in Indonesia the political will of national leaders and politicians can significantly influence the development of democratic society and consequently influence the development of public participation in decision-making process. In fact, since the independence of Indonesia in 1945, the first national president Sukarno moved Indonesia towards authoritarianism and Indonesia stepped into an authoritarian New Order era. During the New Order period, the Vice-president and other government leaders have always considered environmentalists and human rights activists as “new traitors” who would threaten the national security and showed a low political will to accept the participation of civil society in decision-making (Warren and Elston, 1994). Afterwards, in Indonesia the following national presidents and other politicians pay more attention to the role of public participation in environmental improvement and this political will is gradually rising (Interviewee# Id-G1). The interviewees state that the development of public participation in environmental practices is partly attributed to the strong political will of the leaders and politicians. Thus, the low political will can restrict the development of public participation in decision-making process, with no exception in the environmental field (e.g. in the EIA process).

In addition, all interviewees believe that the reform of political regime in Indonesia has a significant influence on the development of public participation provisions in Indonesian EIA legislation. In 1997, due to the economic crisis, Indonesia stepped into a political crisis and underwent an extremely difficult situation. Finally this made the authoritarian New Order regime ended and forced Indonesia to reconstruct the state governance structures. One substantial change was related to decentralization (Purba, 2010). Hence, since 1998, there was a social movement in Indonesia called “reformasi” (political reform), which led to rapid political reform and therefore the democratic process in Indonesia has been strengthened (Purnama, 2003). One important reform is to provide greater space for public participation in decision-making process in order to control the performance of the competent authorities. Then Indonesia has become one of the most decentralized countries in the Southeast Asian region (World Bank, 2005). During this political transition period, democratic progress has been reflected in many new legislations including EIA legislation. The Regulation No.27/1999 was thus enacted in 1999 and one interviewee points out that “*the public participation provisions in this EIA regulation were improved a lot in order to enhance the transparency to the public and strengthen the influence of the public on the decision-making process*”. Hence, the development of public participation provisions in EIA largely depends on the changing political regime.

Moreover, all interviewees also declare that the power distribution among competent authorities, project proponents and the general public has a large or at least medium influence

on the development of public participation provisions in EIA. Public participation is inevitable in a democratic society and this can be seen as the empowerment of disadvantaged groups in order to balance the power distribution among different stakeholders (Purnama, 2003). However, according to the EIA regulations, by now in Indonesia the competent authorities and project proponents have central roles in controlling the whole EIA process while the involved public plays a minor role. For example, although all suggestions and opinions from the public should be reflected in the drawing up of TOR, EIS, EMP and EMoP, the final decision is decided by the competent authority; in addition, only NGOs and local affected communities can become members of EIA commission and participate in the EIA review stage. Therefore, the power distribution in the EIA process is still imbalance and this in turn hinders the development of public participation provisions in EIA.

Furthermore, most interviewees claim that the decentralized governance mode brought by the political reform has to a large extent promoted the development of public participation provisions in Indonesian EIA legislation. Indeed, the political transformation of the institutions is very crucial for the establishment of a more decentralized and participative governance mode (Purba, 2010).

Economic factors

Some interviewees also think that the level of economic development can significantly influence the development of EIA public participation provisions. In Indonesia the levels of economic development are different in varied regions. Some areas with high level economic growth (e.g. the Metropolitan Jakarta) tend to have a more formal mechanism for public participation in EIA (Interviewee# Id-G1). According to a report of World Bank, EIA including its public participation mechanism has the best chance to become a more effective tool in the main economic centers in Indonesia. The EIA experience gained from these economic centers can help to support EIA revitalization in less developed areas in Indonesia (World Bank, 2005).

In addition, all interviewees emphasize the importance of financial support for public participation in EIA. In fact, the whole EIA process including public participation process will need a large amount of expenses since there are some additional costs to EIA study such as extra costs for promotion, public relations and lobbying expenses, in addition to planned costs. Hence, the completion of the whole EIA process requires considerable financial support and public participation section cannot be used for over-budgeting since it may in turn bring about more negative perceptions of the EIA (Interviewee# Id-P4). One report states that in Indonesia government agencies as proponents find it difficult to have enough funds for EIA studies, let alone public participation process (World Bank, 2005). In addition, one interviewee claims that in Indonesia, because of the lack of funds in the government's side, the project proponents will thus need to bear more financial burden during an EIA process including public participation process whereas in fact they have the right to reject it. Therefore, if the governmental budgets is limited and the project proponents reject to bear the additional financial burden, the extent of public participation in EIA process would be minimized, which can indirectly hinder the development of public participation provisions in EIA.

Cultural factors

All interviewees agree that cultural factors including social culture of public participation, and political culture of decision-making, have a large or at least medium influence on the development of public participation provisions in Indonesian EIA legislation. According to O’Riordan and Hey (1976), they also claim that the political culture can influence the evolution of public participation. Consequently, the establishment of public participation provisions in EIA system needs to consider not only social culture but also political culture in a particular society. In Indonesia, both social culture and political culture are top-down and hierarchical. Any decision-making power is concentrated in the highly centralized, paternalistic and authoritarian central government which is dominated by the Javanese. Traditional social culture in Indonesia is a consensus-seeking culture and any opposition, criticism, and confrontation caused by public participation is avoided. Consensus itself is considered important and thus public participation is missing in society (Boyle, 1998). The lack of a social culture of participation within the public usually causes minimum public participation in EIA (Interviewee# Id-P4). Indeed, public participation will not be effective without taking into account the roots of social culture of public participation. One interviewee claims that *“in Indonesian context, the lack of a modern and formal public participation culture is perhaps the main constraint for developing public participation provisions in EIA. Although there are some traditional participation cultures in Indonesia, they are very different from those public participation cultures of the EIA process”*. Hence, the influence of cultural factors is important.

Social factors

All interviewees point out that the development of public participation provisions in Indonesian EIA legislation is derived from the requirement of financial donor agencies or multinational companies such as the World Bank and the Asian Development Bank which fund some infrastructure projects in Indonesia. Public participation is a compulsory requirement which complies with the international standards. In addition, there are some interviewees who declare that some specific historic events in Indonesia have brought an influence on the later development of public participation provisions in EIA. For example, after the disclosure about local social and environmental consequences, in 1989 Scott Industries withdrew from the cooperation with PT Astra to build a pulp factory in Irian Jaya, this is attributed to the direct influence of public opinion on project proponents (Warren and Elston, 1994). This historic event has revealed the influence of public participation and can help the government to consider the importance of public participation in EIA system.

Other factors

Another significant influencing factor is the capacities of EIA competent authorities including legislative and administrative authorities (e.g. BAPEDAL and the AMDAL Commissions), which are stressed by all interviewees. These capacities are such as the quality of personnel (e.g. the availability of competent professionals), the coordination with other government departments and agencies, the division of responsibilities, technical and analytical skills (e.g. how to properly design public participation provisions in Indonesian EIA legislation), and the leadership and organizational abilities of senior environmental staff etc. In the past, in Indonesia many laws and regulations usually caused confusion since they were produced by

different departments, due to the lack of coordination and delineation of responsibilities between different government departments. In addition, at one time the resourcing of the staff in BAPEDAL was very limited since it had only ten professionals to administer the entire EIA program including EIA legislation-making (Warren and Elston, 1994). Moreover, one interviewee claims that some EIA documents produced are often considered inadequate as a result of the lack of professional personnel and poor technical and analytical skills. Furthermore, personal leadership and organizational ability of the head of authorities are also important in the entire EIA program from legislative to administrative process (Interviewee# Id-G2). Overall, the capacities of EIA competent authorities including legislative and administrative authorities play a crucial role in the development of EIA public participation provisions.

The attitude of competent authorities towards public participation is also emphasized by all interviewees since they believe that the competent authorities' attitudes towards public participation can significantly influence the development of public participation provisions in EIA. The interviewees agree that positive attitudes towards public participation can promote the development of public participation provisions while negative attitudes can impede the development. As of today, in Indonesia the attitudes of competent EIA authorities towards public participation is more and more appreciative since they have recognized the importance of public participation in EIA (Interviewee# Id-G2). However, one interviewee claims that "*in Indonesia there are still some EIA stakeholders who consider that the provisions for public participation in EIA are counter-productive since conducting public participation is a waste of time and money*". In addition, some interviewees also point out that so far some government officials still hold a view that public participation may cause conflicts and bring unreasonable demand and less constructive inputs. As a result, the development of public participation provisions in EIA will in turn be constrained due to the negative attitudes.

Furthermore, all interviewees agree that the skills of the public have a large or at least medium influence on the development of EIA public participation provisions. The skills of the public are such as literary, knowledge level, communication skills, and expression skills. One interviewee claims that low-level education of the general public can constrain effective public participation since they cannot reach the expected requirements due to the lack of relevant knowledge and the limited communication and expression skills. As a result, the poor skills of the general public in turn hinder the development of public participation provisions in EIA because even if the provisions are enhanced, the general public lack the good abilities to conduct them. Indeed, nowadays in Indonesia the public participation provisions in EIA legislation are considered almost comprehensive and clear. The main problem is how to effectively implement these provisions and enhance the participatory abilities of the general public.

In addition to above influencing factors, there are some other factors identified by the interviewees. One factor is related to the public pressure. With the rising environmental awareness of the public in Indonesia, the civil society (e.g. environmental NGOs) pays more attention to the projects which will cause environmental pollutions. As a result, the voice of the public will impose the pressure on the government and this in turn forces the government to

consider the public opinions in the EIA process and thus promotes the development of public participation provisions in EIA legislation (Interviewee# Id-G1). Another important factor is related to the influence of religions, especially the influence of Muslim. As what has been introduced before, the religions in Indonesia are diverse and Muslim is the largest religion which accounts for a large percentage of the population. Because the opinions of leaders from Muslim or other religions usually represent the common opinions of most religious people, these leaders' opinions are seriously considered by the government and thus can influence the development of public participation provisions in EIA (Interviewee# Id-G2). Moreover, one interviewee claims that *"in Indonesia there are many local institutions and regulations which complement national laws and regulations. This complementation can reach a win-win situation when implementing public participation in the EIA process"*. Hence, it is possible to consider the local public participation regulations when making public participation provisions in national EIA regulations in order to ensure that the national laws and regulations can be flexibly used in different areas in Indonesia. Furthermore, in Indonesia the development of public participation provisions in EIA legislation is also dependent on the international communication and cooperation with other developed countries like the United States (Interviewee# Id-G7). One more factor mentioned is related to the advance of public facilities. In Indonesia the public infrastructure (e.g. public libraries) has been improved a lot and this progress has made the EIA information and documents available not only at certain government offices but also at public libraries, which is more convenient for the public (Interviewee# Id-G1). This change has been added into the EIA public participation provisions. Last but not least, one interviewee also believes that the experience of public participation in other fields, rather than the EIA field, will influence the public attitudes towards the involvement process in EIA and accordingly influence the public participation in the EIA process. The experience in other fields can be learned to help develop public participation provisions in the EIA field.

Overall, according to the responses of all interviewees, among these above factors, all interviewees agree that political factors like political will of government leaders and politicians, the reform of political regime, and the governance mode, have a large or at least medium influence on the development of public participation provisions in Indonesian EIA legislation. Moreover, all interviewees also believe that cultural factors (e.g. social culture, political culture) can bring a significant effect on the development of EIA public participation provisions in Indonesia. Furthermore, other factors such as financial support for public participation, the attitudes of competent authorities, the capacities of competent authorities (e.g. availability of technically competent professionals, quality of leadership, organizational ability etc.), and the skills of the public, are also considered by all interviewees that have brought about a significant influence. By comparison, regarding other factors like the level of economic development, the requirement of international organizations, and the promotion of specific historic event, some interviewees declare that these factors have medium or large influence while other interviewees claim that these factors bring small influence. The results are displayed in the following table 22.

Table 22: The extent to which these factors influence the development of EIA public participation provisions in Indonesia

Interviewees (Indonesia)	Id-G1	Id-G2	Id-R3	Id-P4	Id-G5	Id-O6
The level of influence of factor (score scale from 0 to 3, '0' means "no influence", '3' means "significant influence")						
Political factors						
Political will of leaders and politicians	3	3	2	3	3	3
Power distribution among project proponents, EIA authorities and the general public in EIA system	2	2	2	3	3	3
The reform of political regime	3	3	2	3	3	3
The type of governance mode (centralized or decentralized)	2	3	2	3	3	3
Economic factors						
Financial support for public participation in EIA process	2	2	2	3	2	2
The level of economic development	2	1	2	3	2	3
Cultural factors						
Social culture of public participation	3	3	3	3	2	3
Political culture of decision-making	3	3	3	3	2	3
Social factors						
The requirement of international organizations	2	1	3	2	2	1
The promotion of specific historic events	1	2	2	1	0	2
Other factors						
Competent authorities' capacities (e.g. the skills and abilities of professionals, the number of professionals, organizational culture, the cooperation with other authorities)	3	3	2	2	3	2
The skills of the public (e.g. literacy, language, communication and expression ability etc.)	3	2	3	3	3	2
Attitudes of competent authorities towards public participation	2	3	3	3	3	3

6.5 The implementation of EIA public participation provisions in Indonesia

With the latest issuance of Act No.32/2009 concerning Environmental Protection and Management, Government Regulation No.16/2012 concerning Guideline for Compiling Environmental Document, Government Regulation No.17/2012 concerning Guideline on Public Participation in EIA, and Government Regulation No.27/2012 concerning Environmental Permit, on one hand, most of interviewees point out that so far in Indonesia the provisions for public participation in EIA legislation have been considered comprehensive and to a large extent clear. On the other hand, these interviewees also claim that the current public participation provisions are too complicated and formal and thus it is not easy for the public to give clear opinions and suggestions.

Despite that, in the interviewees' opinions, there are still some provisions which need to be

made clearer. One interviewee from MOE argues that “*MOE must still develop the detailed and practical guidelines on many aspects of public participation*”. This is summarized as follows. First, regarding the selection of the public in AMDAL Review committee, although the provisions stipulate a general procedure to select the representatives of the public, the accurate selection of the representatives of communities to sit in the AMDAL Review Committee is still a big issue and thus the provision regarding the selection process needs to be made clearer (Interviewee# Id-G2, Id-P4). Second, regarding access to information and information provision, this mechanism is not strictly regulated and in practice many project proponents provide very limited information before the public consultation meetings (Interviewee# Id-P4). Third, regarding the selection of public participation methods, as stipulated in the Regulation No.17/2012, public consultation is automatically required in EIA process, but the form of public consultation is decided by project proponents. As a result, many public consultation processes choose minimal requirement for the consultation and some are artificial and formality only, not too much dynamic and robust in methodology (Interviewee# Id-P4). Fourth, regarding the cost issue in participatory process, this is a sensitive issue. Although the provision clearly states that most costs caused by public consultation process are paid by the project proponents and responsible authorities, there is a lack of clear compensation mechanism for the people who are not rich and spare their time to attend the consultation meetings (Interviewee# Id-P4). Fifth, the Regulation No.17/2012 clearly stipulates that public participation is required during the scoping stage by collecting public suggestions and opinions and this information should be included in the TOR. However, both the announcement of project information and the collection of public comments are done by project proponents and this process does not involve the government officials, so there is no neutral party (like the local government) to ensure that the public is being notified (Interviewee# Id-G7). Sixth, regarding the definition of the public, the newest regulations state that the public who can participate in EIA process can be divided into 3 groups. They are the affected communities, the concerned communities or groups (e.g. environmental activists), the parties affected by all kinds of decision in EIA process. However, this does not address the question about the geographic scope within which the public reside since there are different geographic scopes depending on the nature of the environmental impacts and the affected resources (Interviewee# Id-G7). Seventh, regarding the time duration for the public to make comments, there is too little time between the call for public participation and the input of public comments since the public are allowed to give advice, opinions and responses within only 10 working days after the announcement of information (Interviewee# Id-G7). Moreover, there is no provision concerning the time for public consultation and the regulation only states that it is required to be done before compiling and formulating TOR. In short, these unclear provisions indeed bring some confusions and difficulties in operating public participation in EIA. In spite of this, overall, in Indonesia the current public participation provisions are almost implemented in practice since currently in Indonesia the public participation in EIA is mandatory by law and must be carried out in EIA and Environmental Permit Process. If this is not carried out or ignored in EIA and Environmental Permit Process, the environmental permit would be nullified. As what an interviewee claims that, “*most of EIA public participation provisions in Indonesia are formally enforced, because without a public consultation process, any EIA document will not be processed for evaluation and approval*”.

However, in Indonesia, currently in the EIA process there still exist some highlighted issues in implementing public participation provisions. First, one problem is related to the low attention of the public to the announcement of EIA project through the media. One interviewee argues that *“although the project proponent is required to announce the project accompanied by EIA in newspaper, this is not very effective since there is a lack of attention of the public to the announcement of EIA project through the media and thus the public are very rarely give suggestions and opinions”*. Second, although now in Indonesia multimedia information technologies (i.e. internet, telecommunication services and mobile phones, SMS) have been developed well and reached all areas of Indonesia and this can help to widely diffuse information including EIA information (Interviewee# Id-G5), the announcement of information through the media is still considered too formal (Interviewee# Id-R3). Third, during public meetings, although any person can participate and basically all surrounding people want to join the meetings, sometime it is hard for them to join the meetings as a result of remoteness, limitation from local government, no formal invitation, and the limited distribution of relevant materials etc. (Interviewee# Id-P4). Fourth, when conducting public participation process, some local government officials who attend the meetings view that this is an opportunity to get the compensation and this process can cause bribery and power abuse issues that deteriorate the EIA and public consultation process (Interviewee# Id-P4). Fifth, in public participation process a part of costs are borne by the public however the public willingness to pay is quite low. One interviewee claims that *“it cannot be expected that the public are willing to pay for obtaining EIA documents and travelling to attend the meetings, let alone the appeal cost”*. Sixth, another issue is related to the inadequacy of dissemination of relevant EIA information before public consultation process (Interviewee# Id-P4). Seventh, political issues cannot be neglected since they sometimes hinder the effective implementation of public participation provisions in EIA. One interviewee claims that *“the political will and attitude of politicians and the government is still a constraint of effectively implementing public participation provisions”*. Eighth, the monitoring-evaluation of implementation of the public participation provisions is still very weak and the simple, effective, and practical tools and instruments to do so are still missing (Interviewee# Id-G5). Ninth, the complicated geographical conditions in Indonesia sometimes restrict the effective implementation of public participation provisions in EIA (Interviewee# Id-G5). Tenth, the over-intervention of the regional leaders from executive and legislative authorities is also a barrier to the effective implementation of public participation provisions in EIA (Interviewee# Id-G1). Finally, other issues stressed are such as the level of education of each EIA stakeholder and the level of welfare where most of people can participate without constrained by time and financial aspects. The inadequate levels of these two aspects (i.e. poor EIA knowledge of civil society, poor economic conditions in society) have made it difficult to conduct genuine public participation in the EIA process (Interviewee# Id-G1, Id-P4). In sum, at present in Indonesia the implementation of public participation provisions is considered to a large extent tokenism and formality in EIA and the extent of true public participation is low.

6.6 Suggested improvements

According to the above analysis, some improvements should be done. The interviewees advocate that some provisions for public participation in Indonesian EIA legislation should be made clearer. This is summarized as follows. First, the provision regarding the selection of the representative community who sit in the AMDAL Review Committee needs to be more detailed in order to ensure the fairness and representation. Second, regarding access to information and information provision, the provision should be more strict to ensure that the project proponents provide enough and valuable information for the public before the public consultation meetings. Third, the provision regarding the selection of public participation methods should be made clearer. The regulation should explicitly state that the situation under which each public consultation method (i.e. workshop, seminar, focus group discussion, public meeting, public hearing etc.) should be applied in order to avoid the proponents to always choose the minimum requirement for the public consultation. Forth, cost mechanism for public participation should be improved in order to ensure the compensation for the public who are not rich and spare their time to attend the consultation meetings. Fifth, regarding public participation in the scoping stage, the regulation should add the responsibility of the local government to supervise the behaviors of the proponents in order to ensure that the public is being notified in the scoping stage. Sixth, the definition of the public who can participate in the EIA process should take into account the geographic scope and compartmentalization criteria should be given. Seventh, the time duration for the public to make comments should be extended in order to ensure that the public have enough time to learn the project information and give constructive suggestions and opinions.

In addition to improve the existing public participation provisions, other several aspects should be improved. First of all, there may be some cross-boundary impacts at the local level when conducting public participation in the EIA process and thus the protocols are needed for that (Interviewee# Id-G7). Moreover, under certain situations (e.g. the lack of guidance or applicability), stakeholders guided by capable EIA authority should take the positive discretionary policy and accordingly adjust the provisions to fit actual situations (Interviewee# Id-P4). Furthermore, education and training program for public participation in EIA should be carried out, which aims to change the negative attitudes of government officials towards public participation, increase the environmental awareness of the public and the attention of the public, and strengthen participation skills of the public. In addition, the supervision and penalty mechanism should be more stringent in order to avoid bribery and power abuse issues (Interviewee# Id-P4). Last but not least, monitoring and evaluation of implementation of the public participation provision is very imperative and should be strengthened so as to assess and fill the gap between the policy and the implementation, hence, the simple, effective, and practical tools and instruments to do so have to be developed (Interviewee# Id-G5).

In sum, as Indonesia has multicultural communities with a diverse ethnicities and traditions, it is indeed challenging to provide comprehensive provisions for all communities. According to Indonesian actual situation, the current public participation provisions still need further improvements, at present the most important thing in Indonesia is how to effectively implement

these provisions and avoid the formality, in order to not only create greater public participation but also ensure true and meaningful public participation in the EIA process (Interviewee# Id-G1, Id-G2, Id-R3, Id-P4). As what an interviewee states that, *“what Indonesian EIA stakeholders need to do is to implement the provisions sincerely for a genuine public participation process in order to reach a win-win situation”*.

6.7 Interim conclusion

From what has been analyzed above, it can be drawn that the development of public participation provisions in Indonesian EIA legislation has reached a refinement stage. Public participation has become a legal component for EIA process in Indonesia. The public participation provisions have been made clearer and more comprehensive. In the EIA process, many aspects such as the transparency of EIA information to the public, the level of communication between decision-makers/project proponents and the general public, and the degree of influence of public participation on decision-making have made progress. Many factors have influenced these developments. The political factors such as political will of leaders and politicians, the reform of political regime, governance mode etc. have brought about large influence on the development of EIA public participation provisions in Indonesia. In addition, the cultural factors (e.g. social culture of public participation) also significantly affect the development of public participation provisions in EIA in Indonesia. Furthermore, other factors like the attitudes of competent authorities (e.g. government officials) and the capacities of competent authorities are also very important influencing factors. Overall, so far, the current public participation provisions in Indonesian EIA legislation have been considered almost comprehensive and clear. However, some provisions for public participation in Indonesian EIA legislation are still unclear and need to be improved, such as the cost issue, information provision, the time duration for the public to make comments, and the selection of public participation methods etc. In the future, these provisions should be made clearer in Indonesian EIA legislation based on the country-specific contexts.

Regarding the implementation of the public participation provisions, by now the provisions have been almost implemented in practice in Indonesia. But at present the implementation is largely considered tokenism and formality. The barriers to the effective implementation of public participation provisions are such as low attention of the public, negative attitudes of government officials towards public participation, bribery and power abuse issues, low willingness to pay of the public, poor EIA knowledge of civil society, poor economic conditions in society, weak monitoring and evaluation mechanism, the complicated geographical conditions etc. Hence, some improvements can be done, like revising and improving some public participation provisions (e.g. regarding the cost issue, information provision, the time duration for the public to make comments, and the selection of public participation methods etc.), conducting education and training program, strengthening supervision and penalty mechanism, properly using positive discretionary policy, establishing monitoring-evaluation mechanism and so on. In short, the current public participation provisions in Indonesian EIA legislation still need to be further improved with combining past experience of public participation and Indonesian actual situation (e.g. social, economic, and geographical

situations). There is still a long way for Indonesia to go in order to reach effective and meaningful public participation in the EIA process.

7 Synthesis and discussion of empirical findings

According to the results of the three case studies, some insights can be derived concerning: a. the factors influencing the development of public participation provisions in EIA legislation and the extent of influence of these factors; b. the issues of current public participation provisions in EIA legislation; c. the implementation situation of current EIA public participation provisions and suggested improvements. These insights are described in more details as follows.

a. Influencing factors and the extent of influence of these factors

In each of these three countries (i.e. China, India and Indonesia), all interviewees believe that political factors (e.g. political will of government leaders and politicians, the power distribution among competent authorities, project proponents and the general public, the reform of political regime, and the governance mode) have a large or at least medium influence on the development of public participation provisions in EIA in that country. These political factors could to a large extent promote or hinder the development of public participation provisions in EIA. But specifically, each political factor has various extents of influence in different countries. For example, the factor “the reform of political regime” has a quite large influence on the development of public participation provisions in EIA in Indonesia (see chapter 6, section 6.4) while in India its influence is not very significant since in the past the reform of political regime in India is slow and more or less unchanged (see chapter 5, section 5.4).

Moreover, in each country, almost all interviewees claim that cultural factors (including social culture of public participation and political culture of decision-making) can significantly affect the development of EIA public participation provisions in that country. In fact, in these three countries, in history public participation has always been insignificant and negligible. Traditional society in these countries is hierarchical and when it comes to decision-making on EIA projects, the dominant culture is centralized decision-making. Hence, in the past, the cultural practice, traditional customs and behavioral norms in these three countries to a large extent hinder the development of public participation culture in society and indirectly constrain the development of public participation provisions in EIA. But in recent years, Public participation culture is becoming popular and this has put increasing pressure on the government and therefore a mechanism for developing public participation (including developing public participation provisions in EIA) is increasingly established (see case study chapters for more details).

Furthermore, in all these countries, factors like the attitudes of competent authorities towards public participation, the capacities of competent authorities (e.g. availability of professionals, quality of leadership, organizational ability, cooperation with other authorities etc.), and the skills of the public (e.g. literacy, language, communication and expression ability etc.) are all considered that have an important influence on the development of public participation provisions in EIA (see case study chapters for more details).

However, compared with above factors, economic factors like the level of economic development and financial support for public participation, and social factors (e.g. the

requirement of international organizations like the World Bank and ADB, the promotion of specific historic events) are considered that have different extents of influence in different countries. In each country, different interviewees also hold various opinions regarding the extent of influence of these factors (see case study chapters for more details).

In sum, in the three case studies, all factors identified through literature review in chapter 2 have been demonstrated their influence on the development of public participation provisions in EIA, despite the difference in the extent of influence. What is more, through these case studies, other influencing factors which are not captured by literature review and missing in theoretical chapter 2 are also identified. The empirical results show that different influencing factors are identified in different case studies. For example, in China, the level of environmental pollution is also considered a factor which can to some degree influence the development of public participation provisions in EIA (see chapter 4, section 4.4 for more details). In India, other influencing factors like public environmental awareness, population pressure, resource availability and ecosystem benefits, and risk to public health are all mentioned by interviewees (see chapter 5, section 5.4 for more details). In Indonesia, other influencing factors such as public pressure, the influence of religions, the international communication and cooperation with other developed countries (e.g. the United States), and the advance of public facilities are all stressed by interviewees (see chapter 6, section 6.4 for more details).

b. The issues of current public participation provisions in EIA legislation

The analytical framework developed in chapter 2 has been used to characterize the developments of EIA public participation provisions in different periods. Table 11, 16 and 21 gives an overview of different developmental stages in China, India, and Indonesia, respectively. From these tables, it can be clearly seen that in the three countries the development of public participation provisions in EIA legislation has experienced from non-legalization stage to initial legalization stage to development stage to refinement stage. During the process, the information transparency to the public, the level of communication between decision makers/project proponents and the general public, and the degree of influence of public comments in decision-making are all enhanced in EIA, which are all reflected in the public participation provisions.

Overall, in all these three countries, so far the provisions for public participation in EIA legislation have been considered clear and comprehensive, to a large extent. Despite that, some public participation provisions are still unclear or missing in EIA legislation. These vague and absent provisions need to be improved further in order to make the implementation of public participation provisions easier and clearer in the EIA process. For example, in Chinese EIA legislation, the public participation provisions regarding such as the cost issue, information provision, the timeline for the public to make comments on the EIA documents, and the appeal issue are vague or missing and thus they need to be improved (see chapter 4, section 4.3.4 and 4.5 for more details). In Indian EIA legislation, the provisions about like the procedure for public hearing, the way to deal with public comments in decision-making, the starting time of public participation in the EIA process, the cost issue, and the appeal issue are also unclear or

absent and therefore they need to be further improved (see chapter 5, section 5.3.4 and 5.5 for more details). In Indonesian EIA legislation, the provisions regarding the selection of the community representatives who sit in the AMDAL Review Committee, access to information and information provision, the selection of public participation methods, the cost issue, the definition of the public, the timeline for the public to make comments etc. also need to be made clearer and improved (see chapter 6, section 6.3.4 and 6.5 for more details).

c. Implementation situation of current EIA public participation provisions and suggested improvements

Currently, in the three countries, their existing public participation provisions are almost implemented in practice since without public participation process, any EIA document will not be processed for evaluation and approval. However, although there are clear and comprehensive public participation provisions, the implementation gap still exists in these countries. By now, in the three countries, the implementation of public participation provisions is not very effective and has been to a large extent considered tokenism and formality, which means that the procedural performance of public participation is questioned. According to Sadler (1996), procedural effectiveness can be defined as the extents to which the public participation process in EIA comply with the established public participation provisions. In this regard, the procedural effectiveness in all these three countries is considered low. That is to say, even if the public participation provisions are stipulated in EIA legislation, in practice these provisions are not well complied with when implementing public participation process. In China, although the provisions regarding the selection of the public have been clearly described in EIA law, in practice in many cases the selection of the public is mainly limited to experts rather than the general public; in addition, the EIA law stipulates that the project proponents should seriously consider public comments in decision-making, but in fact they do often not seriously take into account public suggestions and opinions since there is no strict mechanism. In India, although the procedure for public hearings is outlined in the EIA legislation, the procedure laid down is not followed in each case in practice; what is more, news regarding the public hearing (e.g. the time and the venue of conducting public hearing) does not inform the public timely; besides, the provision regarding access to information is actually not implemented effectively in practice since in some cases the access to EIA documents (e.g. EIA reports) is not occurring, even though the legislation stipulates that all relevant EIA documents should be available to the public; furthermore, the legislation states that the EIA information should be available to the general public in a non-technical language, however, in practice the EIA documents are still considered technical and difficult for layman to understand. In Indonesia, in practice many project proponents provide very limited information for the public, even if the EIA regulation stipulates that all kinds of EIA documents should be available to the public. In sum, the procedural effectiveness of public participation in the EIA process is considered low in all the three countries.

The poor procedural performance is attributed to various barriers when implementing these public participation provisions. The three countries have some same barriers to the effective implementation of public participation provisions, such as the negative attitudes of government officials and EIA practitioners/consultants towards public participation, weak public

environmental awareness, weak supervision and penalty mechanism, bribery and corruption issues, political intervention, weak monitoring and evaluation mechanism, and poor economic conditions (economic incentives) etc. Specifically, in all the three countries, some government officials and EIA practitioners/consultants consider public participation costly and sometimes counter-productive, and they worry that increasing the public power may threaten centralized control power maintained by competent authorities. In addition, the public usually pay little attention to the EIA projects and have not strong desire to attend the public consultation meetings due to the low environmental awareness in these countries. Moreover, in all the three countries there is a lack of sound mechanism to supervise the implementation of public participation in the EIA process in order to avoid token implementation, and their penalty mechanism is not stringent and thus bribery and power abuse issues happen in the EIA process. The project proponents do even not worry about the consequences brought about by the violation of some requirements since they more prefer to pay the low penalty fees rather than pay higher implementation fees. What is more, there is a political intervention or bias in conducting and interpreting public hearings, and the over-intervention of the regional leaders from competent authorities could influence the implementation of public hearings and the hearing results. Furthermore, in all the three countries, the simple, effective, and practical monitoring tools to monitor and evaluate the implementation of public participation provisions in the EIA process are still missing, therefore, the gap between legal provisions and their implementation cannot be well addressed. Last but not least, the economic conditions are relatively poor in all these three countries and there is a lack of fund mechanism to support the implementation of public participation in the EIA process. As a result, it is difficult to conduct genuine public participation in the EIA process. In sum, all above issues are seen as barriers to true and effective implementation of public participation provisions, which is reflected in all the three countries. Moreover, the three countries also respectively face other different barriers because of country-specific contexts (see section 4.5 of chapter 4, section 5.5 of chapter 5, and section 6.5 of chapter 6 for more details).

In short, in the three countries, the implementation of public participation provisions is merely seen tokenism and the procedural effectiveness is considered low, in terms of the extent to which the public are provided with the information and opportunities to share the control over decision-making in practice. Arnstein (1969) developed a ladder of participation to divide public participation into eight levels, ranging from the most elementary level of “non-participation” to “tokenism” to ultimately “citizen power”. Non-participation is a process in which competent authorities and project proponents attempt to educate, manipulate or change the thoughts of the public. Tokenism at best offers a platform where the public are provided with opportunities to voice their opinions and suggestions, but the participation has little or no influence on the final decisions. Citizen power represents the largest degree of influence of public participation in decision-making, where the public have chances to veto government decisions (Arnstein, 1969). According to this classification, based on the current public participation provisions in EIA legislation and the implementation situation of these provisions, in the three countries the public are informed and consulted in the EIA process and have opportunities to voice their concerns and opinions. But the influence of public comments on decision-making is quite limited. Viewed in this way, it is clear that at present the

implementation of public participation provisions in the three countries belongs to the level of tokenism. In fact, based on the current political, economic, and social situations in the three countries, it is very hard to enhance the level of public participation.

According to the implementation problems identified, there are some improvements which should be done. It is already known that there are some unclear or absent public participation provisions in current EIA legislation in the countries. This may bring confusions, chaos and conflicts when implementing these public participation provisions. Hence, it is necessary to improve these provisions, combined with past experience of public participation and actual situations (e.g. political, economic, and social situations etc.) in that country. For example, in both China and India, the provisions regarding cost issue and appeal issue should be added into current EIA legislation. In both China and Indonesia, the timeline for the public to make comments on the EIA documents should be extended. In India, the provision regarding the starting time of public participation in the EIA process stages should be improved to make it earlier. More details regarding the improvement of public participation provisions in each country can be found in section 4.6 of chapter 4, section 5.6 of chapter 5, and section 6.6 of chapter 6. In addition to improve the public participation provisions in EIA legislation, other several aspects also need to be improved. There are some common aspects which should be improved in the three countries, such as conducting education and training program, strengthening supervision mechanism, establishing a funding mechanism for conducting public participation, establishing monitoring-evaluation mechanism, more stringent penalty mechanism etc. More details regarding the improvement of other aspects in the countries also can be seen in section 4.6 of chapter 4, section 5.6 of chapter 5, and section 6.6 of chapter 6. In sum, although the current public participation provisions in EIA legislation still have some room for improvement, at present the most important thing in these countries is how to enhance procedural effectiveness and avoid the tokenism, in order to ensure true and meaningful public participation in the EIA process.

8 Conclusion

This research aims to develop a comprehensive analytical framework for classifying and characterizing public participation provisions in EIA legislation and to identify factors influencing the development of EIA public participation provisions in developing countries. The first objective has been achieved by desk research. A comprehensive analytical framework has been drawn (see table 3). Five categories have been used and they are “The stimulation of public participation”, “Transparency to the public”, “The level of communication”, “Fairness and representativeness”, and “The degree of influence on decision-making”. Under each category, different indicators have been used to measure the development of EIA public participation provisions, such as information accessibility, information dissemination, timeline for the public to make comments, the form of public comments, types of the public involved, the starting time of public participation, response to public comments in decision-making, and the right to appeal on final EIA decisions etc. This framework has been applied to analyze the EIA public participation provisions in 36 developing countries and the results have shown that the public participation provisions in EIA legislation have reflected positively on democratic progress in most developing countries, but many public participation provisions are still unclear or missing in EIA legislation in these developing countries and thus the provisions need to be further improved to made clearer and more comprehensive, combined with the country-specific contexts, in order to ensure the feasibility of implementation.

The second objective regarding to identify influencing factors has also been achieved by case studies. In this research, the case study is carried out in three developing countries (i.e. China, India and Indonesia). Likewise, the analytical framework has been used to analyze the developments of EIA public participation provisions in the three countries. The results have revealed that after experiencing several development stages, in the EIA process the information transparency to the public, the level of communication between decision makers/project proponents and the general public, and the degree of influence of public comments in decision-making have been all enhanced in the three countries. Nowadays, the development of EIA public participation provisions has reached a refinement stage in all the three countries since the current provisions for public participation in EIA legislation have been considered clear and comprehensive, to a large extent. In addition, various factors which influence the developments of EIA public participation provisions have been identified, and these factors are such as political factors (e.g. political will, power distribution among EIA actors, the reform of political regime, and governance mode), economic factors (e.g. financial support for public participation, the level of economic development), cultural factors (e.g. social culture of public participation, political culture of decision-making), social factors (e.g. the requirement of international organizations, the promotion of specific historic events), and other factors such as the skills of the public, competent authorities' capacities, competent authorities' attitudes towards public participation, public pressure, environmental factor etc. Among all these factors, some factors like political factors and culture factors have brought about large influence on the development of EIA public participation provisions, compared with other factors.

According to the research results, it can be also seen that in the three countries, there are indeed many provisions for public participation in EIA legislation, but the provisions are to be implemented in a tokenism way, which means that the overall procedural effectiveness is considered low in all the three countries. This is because in practice the public participation provisions are not well complied with when implementing public participation process, even though the provisions are stipulated in EIA legislation. Due to the diversity of public participation patterns and procedures in different countries and the country-specific situations, the practice of public participation in EIA varies in the three countries. Therefore, there are respective issues regarding the implementation of public participation in the EIA process in the three countries. Despite that, some common barriers to implementation have been found in all the three countries, like the negative attitudes of government officials, weak public environmental awareness, weak supervision and penalty mechanism, bribery and corruption issues, political intervention, weak monitoring and evaluation mechanism, and poor economic conditions. Public participation in the EIA process is relatively new in these developing countries and thus the evaluation is required to see whether the procedure is enough clear and well understood by stakeholders, especially by the general public. Overall, at present, for the three countries the key is how to effectively implement public participation provisions and avoid the tokenism, in order to enhance procedural performance and ensure true and meaningful public participation in the EIA process in the countries.

This research has made a contribution to the EIA theoretical development. Theoretically, public participation as a necessary component of EIA can improve the quality of the EIA decisions made. Through meaningful public participation, local knowledge from diverse sources can be accessed to, and the identification of problems can be more accurate and a wider range of solutions can be provided. In this way, the final decisions will be made based on more comprehensive consideration of all kinds of issues. In this research, a comprehensive analytical framework for classifying and characterizing public participation provisions in EIA system has been developed and its usefulness has been demonstrated by applying it to analyze the EIA public participation provisions in developing countries. This framework comprehensively outlines what an ideal public participation system should look like and can be provided as a benchmarking for the good practice of public participation in EIA system. According to the analytical framework, an ideal public participation system in EIA should stimulate public participation by making it become a legal component of EIA legislation. In addition, the transparency to the public in the EIA process should be increased by enhancing information accessibility and dissemination. Moreover, the level of communication among EIA stakeholders should be raised by promoting a two-way communication between the decision-makers/project proponents and the general public. Furthermore, the selection of the public involved should be ensured fairness and representativeness. What is more, public opinions and suggestions should be taken seriously into account in decision-making. In this sense, the public are allowed to influence the decisions of decision-makers, rather than actively participate in making decisions. In sum, through reviewing the public participation provisions in EIA legislation and applying the framework to analyze the features of public participation system, the findings can disclose the achievements to date and the existing issues regarding public participation system. Hence, the theoretical framework can be

provided as an analytical tool for the EIA actors (e.g. EIA policy-makers, EIA scholars/researchers, and EIA practitioners), to help them analyze their public participation systems for further discussion and improvement of EIA system.

In addition, in this research, the results have demonstrated the influence of various factors (e.g. political, economic, social, cultural, and environmental factors) on the development of public participation provisions in EIA legislation and explored the degrees of influence of these factors. Based on the research results, it can be found that there are some similarities in respective empirical findings of China, India and Indonesia. That is to say, among all identified factors, the influence of most factors has been identified in all these three countries. These similarities might imply that these results represent mainstream trends. In other words, it can be inferred that in other developing countries, likewise, the development of public participation provisions in EIA legislation is also influenced by these factors. Hence, the findings of these three country case studies can be provided as a valuable reference for the EIA actors from other developing countries to help them study the development of EIA public participation provisions in their own countries.

It is widely known that one practical value of public participation is to maintain social stability since public participation is a process in which the issues of public concern can be paid attention to and consensus-building among stakeholders is pursued. As a result, potential conflicts and controversies can be avoided or mitigated. In this research, the study results have brought valuable guidance for future EIA practice in the developing countries. The research has identified the existing issues and barriers when implementing EIA public participation provisions in China, India and Indonesia and put forward corresponding suggested improvements. According to the research results, it can be clearly seen that in a country, only developing clear and comprehensive public participation provisions in EIA legislation is not enough, the effective implementation of these provisions is more important. Since public participation in theory is very different from its practice, it is necessary to evaluate the implementation of public participation provisions in the EIA process, in order to see whether there is a gap between the provisions and the implementation. Filling in the gap by revising the public participation provisions and improving the implementation issues, specific approaches can be drawn to obtain a proper level of public participation fit for the country-specific situation. In sum, these research findings have brought valuable information for China, India and Indonesia, to guide the EIA actors from these three countries to improve their public participation implementation process in EIA practice. What is more, these results can be also provided as a reference for other developing countries since many developing countries share similar historical, social, cultural, and economic features and have some common issues.

Overall, this whole research has brought values for future EIA and public participation theoretical and practical research in developing countries. For developing countries, what their governments should do next is to review and improve their EIA public participation provisions based on their country-specific situations to make the provisions clearer and more comprehensive, most importantly is to assess and improve the implementation situation of

public participation provisions in the EIA process, instead of treating the implementation as a mere tokenism. The effective implementation of public participation provisions in the EIA process will bring a true participatory democracy. In short, currently in developing countries many problems still exist in the EIA regime and not all problems can be addressed in the short term, therefore, the governments need to make more efforts to make the EIA decision-making step into a truly democratic participation process where the public have the power to influence the final decisions.

9 Recommendations for future research

There are some recommendations for future research. First, in this research, due to the limited time and the availability of resource, only three developing countries (i.e. China, India and Indonesia) have been studied and these three countries are all located in Asian region. This may lead to the limited generalizability of the empirical findings. Hence, future research should study more developing countries located in other regions (e.g. Central American countries, South American countries, or African Countries). Since developing countries located in different regions may have many differences in historical, social, cultural, and economic aspects, it is possible to find out more influencing factors not identified by this research. For example, one possible influencing factor not captured by this research is related to the development of EIA discourse. The EIA process can be considered as a forum to create the discourse in which social learning can be achieved, and the discourse in turn influences the values and perspectives that people hold regarding the environment and the communities (Wilkins, 2003). Hence, the development of EIA discourse could influence the development of public participation provisions in EIA legislation but this factor still needs to be further proved in more empirical research.

In addition, as what has been discussed before, in this research, the empirical findings are based on the inputs of the respondents who work in research universities/institutes and governmental institutes. The research lacks the inputs of people who work in civil organizations (e.g. NGOs). Although people from civil organizations may only provide limited information, this does not mean their inputs are valueless since these people may have different perceptions and experience especially on the implementation situation of public participation provisions in the EIA process. Hence, in the future research, the triangulation of information sources should be strengthened by adding the inputs of people who work in civil organizations into the research, in order to enhance the reliability of research results.

Moreover, in this research, the usefulness of the analytical framework for classifying and characterizing public participation provisions in EIA system has been only demonstrated in developing countries. Thus, future research could apply this analytical framework to study developed countries in order to demonstrate its broad usefulness.

Furthermore, as what has been discussed before, in this research, one of the research questions is to explore the extents to which the identified factors influence the development of EIA public participation provisions and the answer to this question is based on the responses of interviewees. The research results more or less find out some factors have large influence while some factors have small influence. However, the trend of these findings is not very obvious due to the limited number of interviewees. Therefore, future research should increase the number of interviewees to make the research results more reliable.

Last but not least, this research has found that the implementation of public participation provisions is considered tokenism in all the three countries since the public participation provisions are not well complied with in practice and there is a gap between the provisions and

the implementation. As a result, the procedural performance of public participation in the EIA process is seen disappointing. However, this research did not give an in-depth study on the assessment of the level of procedural and substantive performance of public participation in the EIA practice in these countries. Hence, in the future research, it is necessary to identify performance indicators to assess the level of procedural and substantive performance of public participation in the EIA practice.

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Appendix A

Interview questions

-General Questions

1. What is your current work (exact occupation; name of organization/institution)?
2. What kind of work experience related to EIA do you have (e.g. involved in EIA legislation-making, implementing EIA legislation, publishing EIA-related articles etc.)?
3. What kind of work experience related to public participation in EIA do you have (e.g. involved in EIA public participation provisions-making, implementing EIA public participation provisions, publishing EIA public participation-related articles etc.)?
4. How long have you been involved in EIA or in EIA public participation?

-Questions on the Research Topic

1. What do you think about the existing public participation provisions in EIA legislation in your country? Are these public participation provisions clear and comprehensive in EIA legislation?
2. According to the overview of EIA public participation provisions (see appendix I), in your opinions, by now which public participation provisions are still missing or unclear in EIA legislation in your country?
3. According to your personal experience and opinions, please point out the level of influence of factors listed below on the development of public participation provisions in EIA legislation in your country, choose one score from 0 to 3, '0' means "no influence" while '3' means "significant influence".
(Example question: Do political factors have an influence on the development of public participation provisions in EIA legislation in your country? To what extent?)

Score (Degrees of influence)	0 (no influence)	1 (small influence)	2 (medium influence)	3 (large influence)
Factors				
Political factors				
Political will of leaders and politicians				
Power distribution among project proponents, EIA authorities and the general public in EIA system				
The reform of political regime				
The type of governance mode (centralized or decentralized)				
Economic factors				
Financial support for public participation in EIA process				

The level of economic development				
Cultural factors				
Social culture of public participation				
Political culture of decision-making				
Social factors				
The requirement of international organizations				
The promotion of specific historic events				
Other factors				
Competent authorities' capacities (e.g. the skills and abilities of professionals, the number of professionals , organizational culture, the cooperation with other authorities)				
The skills of the public (e.g. literacy, language, communication and expression ability etc.)				
Attitudes of competent authorities towards public participation				

4. In addition to above listed factors in the table, are there any other factors which have an influence on the development of public participation provisions in EIA legislation in your country? If there are, what are they and to what extent?

5. In your opinion, to what extent the existing EIA public participation provisions are effectively implemented? What are the barriers to effective implementation of EIA public participation provisions in your country?

6. Do you have any suggestions to improve the existing EIA public participation provisions and/or improve the implementation situation of these provisions, according to the country-specific contexts?

7. Do you have any other comments to add, information or insights relevant for this research project?